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Contents

THE STATE AND PERSPECTIVES OF MEDICAL SERVICES IN IRAQI KURDISTAN

Niaz Adnan*

1. Introduction

Kurdistan (KRD) is a federal region inside Iraq; it has its own regional government, parliament, and constitution. The budget of KRG consists largely on the Iraq's budget (17%) plus the local government's revenues from taxes, fees of government services, customs duties and donors abroad. The region comprises of three governships (Erbil, Sulaymania, and Duhok) with total population around five million inhabitants.

The health sector in this region has been experiencing strong reforming and transformation since 2003. The best practices of economically developed countries were taken into account in creating a new approach to medical services and new medical system in Iraqi Kurdistan. Despite the fact that not all initiatives were successful, the essential step forward was done during these eleven years. Nowadays the health sector seeks for better economic and managerial organization of hospitals, implementation of insurance in medicine and reasonable organization of payable medical services.

This publication aims to present the path, done by the Kurdistan's health sector in the time of reforming, to describe further problems and perspectives. Because in my humble opinion realities in Ukrainian and Kurdian health sector have certain parallels, and similar solutions can be found for similar challenges.

2. The development of the health sector in Iraqi Kurdistan in 2003–2014

Until the topple down of the former regime in 2003 the region suffered from three decades of wars and its aggressive policy specially toward Kurdistan's people, in this period the economy suffered from harmful and long term recession in both public and private sectors. In that time the health sector was totally managed by the government and was characterized by the following:

1. There was a big shortage of investment fund allocation especially in the health sector, which has led to decreasing the quality and quantity of medical services.
2. The region was affected more than the other parts of Iraq due to international embargo under the United Nation Security council Resolution (UNSR) after invasion of Kuwait by Iraq's government (IG) in 1990, in addition the second embargo was imposed on Kurdistan by Iraq, as well as (IG) withdrew their administration and organization in Kurdistan and as alternative there was a de-facto of government established by the Kurdistan's ruling parties. Generally the local public administration at that time suffered from the lack of experience, finance resources, and qualified human resources in spite of that the region had been isolated internationally till 2003, but after toppling down the former regime in 2003 the new government was elected with new constitution, as a result of the fact that the new era started since this date, and the economy sectors growth started because of the increase of Kurdistan's regions share in Iraqi petroleum revenue which is around 17%, due to its population percentage of the entire Iraqi.

Since 2003 the medical services development started to depend more on quantity indicators more than on the quality, i.e., expanding the services through approaching it to different geographical area (metropolitan cities, districts, sub districts and rural area); in spite of this growth of the sectors (constructing new hospitals, clinics, laboratories accommodated with new equipment and instrument by both public and private sectors), there was much shortage and weakness which can be mentioned as follows:

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1. The geographical distributions of medical services were not appropriately covered for all inhabitants in districts, sub districts and rural area, comparing them with the capital cities of the three governships in Kurdistan.
2. The same thing can be observed regarding the distribution of doctors and medical staffs in hospitals and clinical centers.
3. In spite of huge increase in establishing private hospitals (Tab.1), they are mainly concentrated in the center of three main cites, because of relatively well developed infrastructure.
4. Due to the poor health services in public hospitals and clinic centers the majority of population prefer to visit private sectors such as:

– Private hospitals and clinics.

– Private Diagnosis centers.

Tab. 1. Quantity of medical organizations in governorates of Iraqi Kurdistan in 2012

Type	Erbil	Slemani	Dohuk	Total
Public	22	28	9	59
Private	24	12	4	40
Total	46	40	13	99

Source: http://www.investingroup.org/publications/kurdistan/overview/health/

5. Need for medical services can be divided into two groups:

– Primary health care: patients are seeking to get their services from public hospitals and clinics (especially low income people) and private clinics.

– Secondary health care: The diseases which required big surgery operation or long term treatment, are carried out mostly (by a specialist physician) in private hospitals at home or abroad, especially for medium and rich classes of population, that is because of low quality and limited capacity in public hospitals which mainly treat low income people.

Despite of obvious advantages of the private health sectors (such as advanced equipment and technology, less bureaucracy comparing with public health sector), there are also essential weaknesses of the private health sector, such as:

– The majority of the private hospitals and clinics are carrying out their services in buildings which are not constructed especially for medical services, for that they are suffering from improper venues according to the minimum standard required.

– The investors in the health sectors sometimes are not people with general medical education, for that their aim is to gain maximum profits with lower costs resulting low quality of services and long term treatments.

– The cost of treatment of private medical services is very high which is not suitable for the majority of people, especially for low income groups (which comprised 30% of total population).

– The lack of appropriate condition in giving license to establishing new health clinics, centers, or hospitals by imposing the requirement needed as pre condition for establishing such as

(venue, equipments, electronic systems, and required medical staffs), as well as weakness of controlling the existing medical department by the responsible authority in the ministry of health.

6. All medicines and vaccines requirements of the region are imported from abroad without appropriate quality control which enhances the importers to import bad quality and sometimes expired medicines but recently because of the danger of these phenomena the ministry of health has tried to pay more attention to this issue by introducing quality control system.
7. The absence of medical insurance for inhabitants facilitates medical treatment for all people without taking their finance or social attitude in the community to consideration, which leads to depriving low income people from good medical services.
8. The region's private sectors in this domain became a good center for treatment of patients from other parts of Iraq (it comprise around 40% of patients treatment in KRG) because of high security of the region comparing with the rest part of Iraq; it attracts also many qualified doctors from all over the Iraq and abroad to immigrate to the region, and reinvest their capital in it. And finally because of these processes the region became the destination of patients for treatment, which has a positive influence on economic activity growth and on flourishing the region in general.
9. In spite of the above medical services in the region still do not fit for the ambitions of its community or taking the world standard into consideration, there is a big drain of patients for treatment abroad, especially to the surrounding countries, in spite of difficulties facing them (language, finance, and visa), it causes a great wasting of foreign currency.

3. Further Challenges in Kurdistan's medical services

The organization of the medical sector which is the responsibility of the ministry of health is facing several challenges:

Administration challenges:

- Incapable administration structure of the ministry of health and their general directorates in the center of governorates (Erbil, Sulaymanya and Duhok) which needed to be revised according to the needs as a result of research
- Shortage in the laws and rules which are being implemented currently as the legal frame for health services in KRG.
- Adopting classical system of administration far from E-governance, and significant phenomena of miss utilizing of the resources and corruption.
- The lack of following up the system underling the efficiency of administration performance which gives a base for corruption.
- The dispute between the ruling parties leads to try each ruling side to take more advantage of public administration which constitutes a barrier to establish appropriate government strategy policy for good governance.
- Disproportion in distributing medical cadres (specialized doctors, general physicians, and technical cadres) between the big hospitals and clinics in the cities, as well as between metropolitan cites and other smaller administration units all that is because of miss management of human resources by ministry of health and the absence of adequate job description and data base that lead to diffusion of disgust unemployment. Some researchers estimated that as about 40% of total employees. The same problem encompasses the technical medical equipment.

Tab. 2. Dynamic of the health indicators in KRG

Health indicators	2012	2013
Hospitals Per (100,000) of the population	1.2	1.3
Health centers Per (100,000) of the population	18.1	18.2
Family Per (100,000) of the population	130.7	133.9
Physicians Per (10,000) of the population	10.1	17
Dentists Per (10,000) of the population	1.3	2
Pharmacists Per (10,000) of the population	0.9	1.5
Nursing staff Per (10,000) of the population	16.1	24.3
Health Level Per (10,000) of the population	22.5	27.4

Source: Statistic Department of Ministry of health in KRG

4. Financial challenges

The financial system in public sector depends on KRG budget; it is very classic and highly centralized by the ministry of finance from the point of view.

Preparing the budget which does not take into account the allocation the real needs of the health ministry (5% of total budget).

Fig.1. Percentage of health budget to total budget in Kurdistan

Source: Ministry of Finance in KRG

Even the declaration of the yearly budget through a law by the parliament, but during its implementing, the ministry of finance enforces the ministry of health to take its approval for each outlay item included in the budget.

The weakness of planning system in the ministry of health looks like the other ministries of the region, for example, the absence of multi period planning (strategic, medium, and action yearly plans), in addition to the shortage of medical data base, which causes difficulties in assessment of requirement for all needs (venue, cadres, tools, and equipment) and then for financial requirements accordingly.

Preparation of annual budget is not made in accurate way, which currently depends on previous year's budget adding arbitrarily a percentage for covering the rate of growth of population.

The share of ministry of health in the budget does not correspond to the demand for its services, in addition to the lack of research that analyzes the budget of the ministry in order to determine the rationality of allocation and its implementation for each items included in it.

The weakness of internal finance control system in the ministry of health or by ministry of finance and external finance auditory of the regions as well.

The factors causing difficulties in budgets of health ministry are the great conflicts between the central federal government and the region, this conflict especially related to the division of the revenue created by central government and region. The result of which is that the federal government does not fulfill his obligation to send the share of the region in general budget of Iraq according to the Iraqi's constitution.

The above point deteriorated the finance of the ministry and became a big barrier for introducing any reform in the ministry of the health.

The weakness of the budget can be noticed through the shortage in some articles which enforce to transfer from other articles especially from investment side to the operational side which results in impeding the plans for the development the health sector.

Wasting of financial recourses of the ministry through exaggerating expenditures to satisfy the needs of some high position of some administrative people on the account of the fund covering necessary needs of the ministry.

Another reason for exaggerating the ministry budget expenditure is to face any reducing of the budget by ministry of finance.

The low percentage of investment share in the budget of ministry of health can be recognized through:

- As the share from total investment budget of the region.
- As the percentage from the total budget of the ministry i.e. because of high rate of operational budget which comprises around 70% of the total budget, even the share of investment is overtaking through transferring a sum of it to the operational budget.

Disproportion of the division of the budget according to the cities, districts, sub districts and rural area which leads to concentrate health services in the metropolitan cities. Lack of adequate financial controlling system of the Ministry of health although the existence of financial auditing office of the KRG, which leads to more wastes in both expenditure side and revenue from fees of services.

5. Recommendations for development of the health sector in Iraqi Kurdistan

According to research made there are some recommendations for further development of the medical services in the region:

1. Giving priority in investment allocation especially in health sector and health services, in order to ensure the development of the health services in broad meaning of this word.
2. Improving quality of services in the health sector through preparing highly qualified specialized physician.
3. Distributing health services to different geographical areas (districts, sub districts, villages and remote areas) financed from the budget of Ministry of Health.
4. Redistributing of doctors, medical staffs, and cadres in all part of the region fairly.
5. Enhancing the distribution of private clinics and hospitals to locate in districts and sub districts in order to develop medical services in these places.
6. Increasing the efficiency of public clinic and hospitals through:

- Introducing new sufficient organization, as well as the new structure of management with appropriate authority in decision making.
- Paying more attention to increase the skills and qualification of all kind of human resources through sufficient training strategic plan.
- Introducing scientific job description and electing the human resources needs according to that and to eliminate the high rate of disgust unemployment.
- Changing the system of requirement by introducing the contract system in state of central recruitment system which is adopted now.
- In order to underlie the needs in qualified cadres in different specializations it is necessary to prepare a strategic plan to fulfill the shortage of different kind of medical cadres needs.
- Revising the current laws and regulations, and replacing them by the new modern ones.

7. Imposing the requirement needed according to the rules adopted by the ministry of the health as

pre condition for giving the licenses for establishing new private hospitals, medical centers and clinics such as appropriate (venue, equipment, electronic systems, and medical staffs).

8. Strengthening auditing and controlling systems in the ministry of health and external auditing office of the KRG parliament in order to improve the budget from its preparing stages, implementation and following up.
9. Regarding the private health sector (hospitals, clinics and other medical services) it is necessary to organize well the administrative auditing in it in order to guarantee the qualified services provided by them.
10. Establishing a suitable medical insurance system for all Kurdistan inhabitants.
11. Encouraging the local investors for making a joint venture with foreign medical companies.
12. Preparing the ministries' yearly budget according to :

– Ensuring finance resources to implement the action plan of the ministry – Strengthen the financial controlling system in order to prevent any corruption or miss utilizing of financial resources.

– Following up the implementation of the yearly budget through preparing the final accounting and analyzing the expenditures of each item in order to be confident that in the end the budget has fulfilled the objectives of the ministry, and to determine any deviation or miss utilization.

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Summary

The health sector in this region has been experiencing strong reforming and transformation since 2003. The best practices of economically developed countries were taken in account by building up a new approach to medical services and new medical system in Iraqi Kurdistan. Despite not all initiatives were successful, the essential step forward was done during these eleven years. Nowadays the health sector seeks for better economic and managerial organization of hospitals, implementation of insurance in medicine and reasonable organization of payable medical services. This publication aims to present the path, done by the Kurdistan's health sector in the time of reforming, to describe its further problems and perspectives. Because in my humble opinion realities in Ukrainian and Kurdian health sector have certain parallels and similar solutions can be found for similar challenges.

Keywords: Iraqi Kurdistan, medical services, reform, challenges.

JEL classification: I100

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QUALITY MANAGEMENT IMPLEMENTATION AT UNIVERSITY

Nadema Aljaf *

1. Introduction

Universities have the mission to create knowledge by doing basic research, to transmit it by teaching in the undergraduate, postgraduate and continuous education and what is known as third mission: its social implication in transference of knowledge, innovation and development and cultural and social compromise towards building a better world, with more justice, peace, and richness for everybody. For doing their mission Universities must be autonomous and well financed. But this implies accountability of the resources that the society puts in our hands. Do we use efficiently those resources? What is the quality of our work? In the past 15–20 years the quality assurance entered in my University experience, and today it is accepted as normal issue. Today nobody is against quality assurance in the University; where it entered many years before. What is not widely accepted is the method of doing it. The Legitimacy of Quality Assurance in Higher Education is based on that of the European Higher Education Area (EHEA) with automatic validation of titles and free circulation and work in all European countries. To make this possible it is necessary to assure a quality standard of education in Higher Education Sector and the development of Quality Assurance systems for Higher Education Institutions. That's why the European ministers in Bergen in 2005 urged to define standards and guidelines for QA, following the Berlin Ministers of Education meeting where they agreed that the national QA systems should include a "system of accreditation, certification or comparable procedures" The progress of implementation was reviewed again in London in 2007. This process is not simple, because HE systems in Erbil/Iraq vary, often for historical reasons alone: old vs. new universities; private *vs.* Public; comprehensive *vs.* special HEIs, etc.

It is important to stress that there is an imperative need of University Social Implication, we must insist in our essential role in generation of richness in the global knowledge society of the 21 century. For Universities it is a mistake to ask for more University financing just for social reasons, as they are not priorities because health care is the first, social settings are the second and primary education is the third. We must combine it with social needs for producing money and be efficient with the gain/gain philosophy, helping to increase general economy: Investigation, Development and Innovation, and increased value: quality, prestige and better health care.

Quality assurance and quality improvement are two necessary objectives that all organizations must assume and work towards them. There is no other option. Besides, it is justified by: 1) Personal ethics. To work with the maximal quality as possible is a challenge that every human being must have as a value. It is one of the different items that help the one to be happy in his/her own life. The selfish increases if one works with quality; 2) Social ethics. There is a need of security in health care for every citizen.

The EHEA with the recognition of titles and studies within Iraqi Universities makes it necessary to implement a Quality Assurance program to assess similarities in teaching outcomes. In different training it has implications that make it specific and different to others. There is a real need to evaluate, enhance, accountability and confront the evaluation Standards in Medical Education and the methods and results of all University Higher Education, that is worldwide for its health care implications. Schools of medicine have special complexities in relation to other university studies: in undergraduate medical education, postgraduate training, Specialization, Continuous Medical Education, Basic and Applied Research; all is done in relation with clinical settings. The Universities have different types of Evaluation: Institutional Evaluation: dealing with Governance or General organizational aspects; and Specific Evaluations: of Quality of Teaching: (curricula,

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methodology and outputs) and of Health Care Quality Assurance. There are also different methodologies for quality assurance: Quality Circle; Q.A. focused on: Structure, Process and Results, Continuum of Quality: for Undergraduate and Postgraduate education; Accreditation or improvement and Quality of Medical School and Health Care System. Rector's have challenges: Differences between Centers and Studies, Different Staff opinions, the need in more Resources, and need in High standards and guidelines. University Staff have different opinions about Q.A. Evaluations: A mandatory extra-work that takes extra-time, A bureaucratic extra-work that has little positive effects on their own professional work, A rector's office imposition because of no trust in staff and need of university marketing. And a necessary complementary work for increasing quality in teaching, research and health care providing, a need in university transparency and accountability for generating society complicity and help. That's why it is necessary to implement Actions of Continuous information-education about the need of life-long learning in all professional aspects, not only technical: of Teaching, Self-growing, Research, Management, involving the Staff and Students in the process and making Staff leave the QA evaluation as a "enjoying process". In the implementation of Quality Assurance we must avoid several pitfalls: Excess bureaucracy; To be received as a "police inspection"; Excess of extra work; Little related to outcomes; Not accepted as an improvement tool; Conforming with the assessments; Not integrated in staff normal work. There are different approaches for Q.A. Assessment, for example: Each Medical School, according to the HEI can decide itself which type of quality system it is following (ISO, EFQM, etc.) or develop its own that fits best it's very strategy and tasks. What is very important is to achieve that every Medical School should be willing to go through the audit with its motivation based largely on enhanced national and international competitiveness and visibility. Each audit is based on a specific contract between the Medical School and the Agency, and thus must not been seen as limiting the autonomy of the Medical Schools. The way ahead, in the future I suggests that: internal quality assurance processes need to be sufficiently financed on a continuous basis; decisions about the course and program design, monitoring and approval should be informed with employers' views – Health care Responsible; quality management bodies inside the HEIs should involve students on a more systematic basis; involvement of international reviewers has to be financially supported by the government.

2. Conclusions:

- Universities must give high autonomy governance to Medical Schools;
- Health Care providers must be linked with Medical School respo;
- Universities Quality Assurance Offices must help medical Dean's Office work.

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Summary

Medical School is different as teaching implies health care system and patient's care; its cost is very high and many people implicated in medical students training are not linked with University Staff: Hospital and Primary Care physicians, nurses and other Health Care Professionals, etc. That's the reason why Q.A. of Medical Schools must be closely related to results, to outcomes and be combined with QA of Health Care settings. There are different specific models of Q.A. evaluation of Medical Schools. ENQA should agree a common European Standard Model.

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STRUCTURE AND CLASSIFICATION OF INTANGIBLE ASSETS IN INDUSTRIAL ENTERPRISES

Katherine Anokhina*

1. Introduction

At the rapid development of STP a steady increase in the value immaterial resources of the company's activities can be observed. At the end of the 19th century, economists noted that the performance of enterprises depends not from material components such as instruments and objects of labor, financial and human resources but from immaterial components, namely: inventions, know-how, business contacts, reputation and brand awareness, and so on.

The Organization for Economic Cooperation and development notes that in many countries, investments in intangible assets exceeds growth in more traditional form of capital, namely machinery, equipment and buildings. Available data for several countries demonstrates the rapid growth of interest in intangible resources. In the UK, investments in intangible assets increased by more than 2 times between 1970 and 2004. Recent studies demonstrate annual investments in intangible assets in the United States in the amount of 800 billion and 1 trillion dollars. Thus the positive trend of involvement of intangible assets in the enterprise value can be traced for many years.

Despite the relevance of the choice of research topics, many theoretical and methodological issues related to intangible resources are still not disclosed. The issues relating to terminological-conceptual nature and classification features require a more detailed analysis.

Despite the large number of scientific works which are devoted to IR (intangible resources) and classification of assets, there is no unity among scientists about establishing their composition by types. Most scholars who work on IR issues, anyway, use in their researches the achievements of the authors who have made a significant contribution to exploring issues and the nature of intellectual capital. J. Daum and H. Bontis are no exception representing intangible assets through the classification of intellectual capital, and thus seek to cover as many components that are not captured by accounting statements.

2. The main material research

G. Ahonin and T. Hassi divided intangible assets into two types: generating (those that create value) and commercial (those which are used in trade, commercial purposes, may produce income). The first group includes human capital, internal and external structure. The second – intangible property rights [1, p.277–286].

T. O. Garanina [2, p.10–11] believes that intangible assets, intangibles and intellectual capital are interchangeable. The author finds that it is unlawful to narrow immaterial assets only to those recognized in the accounting. Therefore their composition must provide two subgroups: those that are recognized and not recognized in the financial statements.

In his work G. G. Azhaldov and N. N. Karpova divide intangible assets to intellectual property objects, organizational costs, expenses for purchasing licenses for natural resources management, cost of research and development work, know-how and business reputation (Fig. 1) [3, p.163].

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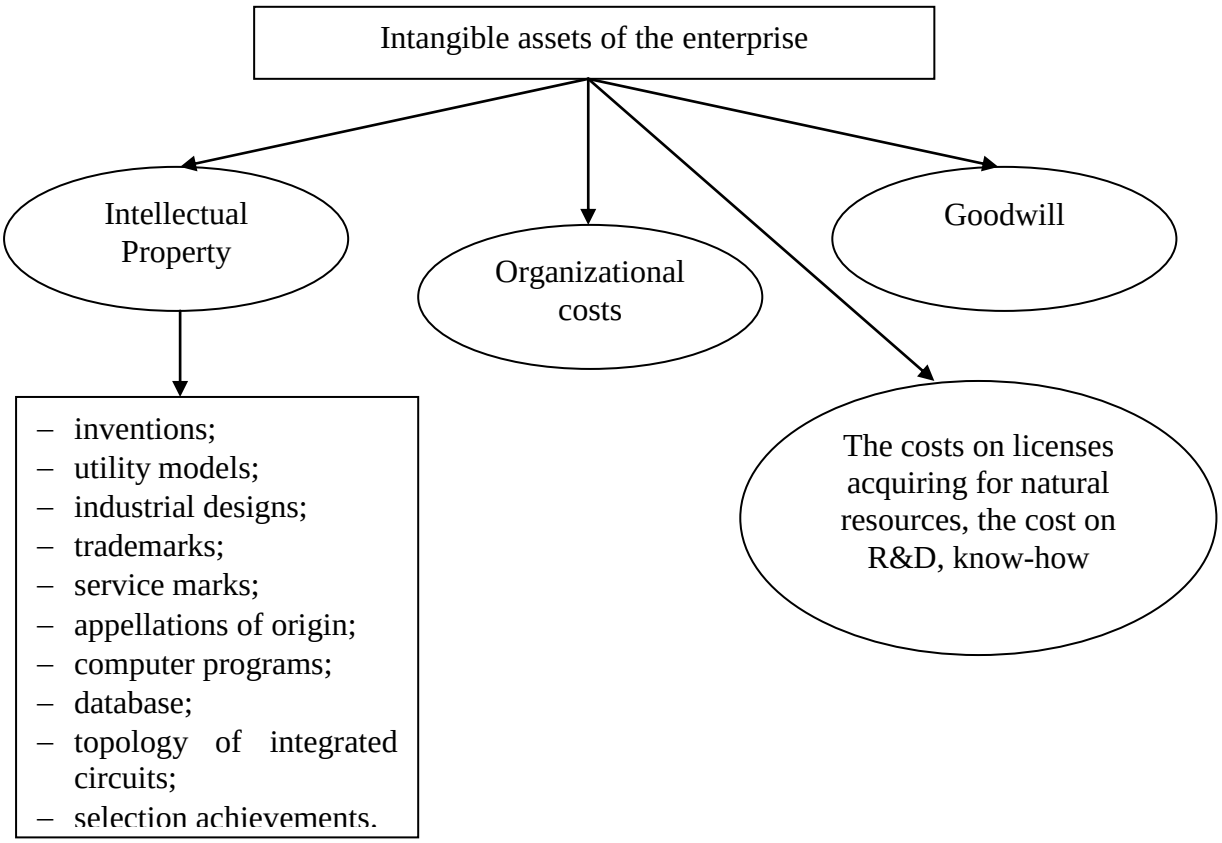

Fig. 1. Composition of intangible assets according G. G. Azhaldov and N. N. Karpova (compiled by the author on materials [3, p.163])

Undoubtedly, such a vision simplifies evaluation of intangible assets, because assessment is carried out taking into account all legal norms and normative documents used in business. However, targeting only the most common components can not reveal all the hidden possibilities of the company and involve them to work and increase the capitalization of the company. Moreover, the present classification contains a clear guidance on cost approach in assessing components of intangible assets, but there are other methods of valuation of IA, therefore we should not exclude them in the classification as those that do not meet requirements.

The classification of intangible assets of R. Reilly and R. Schweis [4, p.29] is currently the widest. Unlike IFRS 3 and FASB classification (where the number of groups is five), this classification is composed of ten groups, namely: intangible assets associated with marketing (trademarks, trade names, brand names, logos, colors); intangible assets related to technology (patents: patents on technological processes, patents on business methods, technical documentation, laboratory logs, technical know-how); intangible assets related to creative activity (literature works and copyrights on them, musical works, publishing rights, photographs, maps, prints); intangible assets related to data processing (proprietary software, copyrights on software, computerized databases, integrated circuits, microchips and their templates); intangible assets related to engineering activities (industrial designs, patents on products, trade secrets, blueprints and diagrams, corporate records, projects, technical know-how); intangible assets related to customers (customer lists, customer contracts, customer relationships, open purchase orders); intangible assets related to contracts (lucrative contracts with suppliers, licensing agreements, franchise agreements, subscription rights, futures contracts); intangible assets related to human capital (skilled labor force and wages, contracts, agreements with unions, employment contracts); intangible assets associated with the land (lease rights, rights for subsoil use, easements, rights for airspace, rights for water space);

intangible assets related to "goodwill" (goodwill of organization, goodwill of professional practice, personal professional reputation, the total value of the business as a going concern).

M. Yashchensky and N. V. Dyukova divide the perspective of components of intangible assets of R. Reilly, R. Schweis and consider it as the best of the existing ones [5, p.63]. However, the authors note that, unfortunately, it is not optimal or complete. As the disadvantage of this classification can be considered a duplication of certain groups, such as: intangible assets related to technologies and engineering activities or intangible assets related to customers and contracts. The components of these groups are very closely linked and such classification can cause a repeat or ambiguity to which group a particular object should be included.

Based on these principles the author's classification of the company's immaterialities was formed (Fig. 2). As intangible assets, even with the inclusion of goodwill, do not include all the intangible components of the company's activities, it was decided to analyze the composition of the company's intangibles based on the category of "intangible resources". IR consist of identified, controlled by the company and uncontrolled by the company. Identified and controlled by the company IR are the intangible assets of the company and include all the intangible assets that are approved in the P(S)BO No. 8. The difference of composition of groups of intangible assets by the author's classification from composition of groups of IA by the accounting standard is to unite the three groups (the right to use natural resources, the right to use property and other intangible assets) in one "Intangible assets related to the use of natural resources, property and other rights" group. This is due to a similar economic essence of these IR components. They create additional immaterial opportunities for the company related to the use of material objects that do not belong to them.

All other intangible components of activity which are uncontrollable by the company, to which there were no property rights, were attributed to the group of "Uncontrolled intangible resources". Uncontrolled IR include elements of human and communication capital, as well as goodwill (Fig. 2).

Let's consider in more detail the composition of IR and assets of companies according to the author's classification and let's start from controlled intangible assets.

Intangible assets related to the technologies are attributed to industrial property object, namely patents on technological processes, patents on business methods, proprietary software, patents on products, unpatented objects; technical documentation: laboratory logs, technical know-how; industrial designs, trade secrets, blueprints and diagrams, corporate records, domain names, address, website design and more.

The second subgroup consists of intangible assets related to the use of natural resources, property and other rights, such as lease rights, rights for subsoil use, easements, rights for air space, rights for water space, right for land use, building, rights for rent, right for use of other property (except the right of permanent land use), right to engage in activities, royalties agreements, leasing (rental) agreements, license agreements, franchise agreements, construction permit, use of economic and other benefits and so on.

The composition of intangible assets related to creative activities include rights for intellectual property such as literature, art, music, computer programs, compiling data (data bases), performance, phonogram, videogram, transmission (program) of broadcasting organizations and others.

The last, fourth group of intangible assets includes the assets related to the commercial designations, such as trademarks, rights to the name of a business entity that is used in the agreements, signs, ads, advertising, accounts or letterheads, trademark (brand) names, logo, used color and shape and so on.

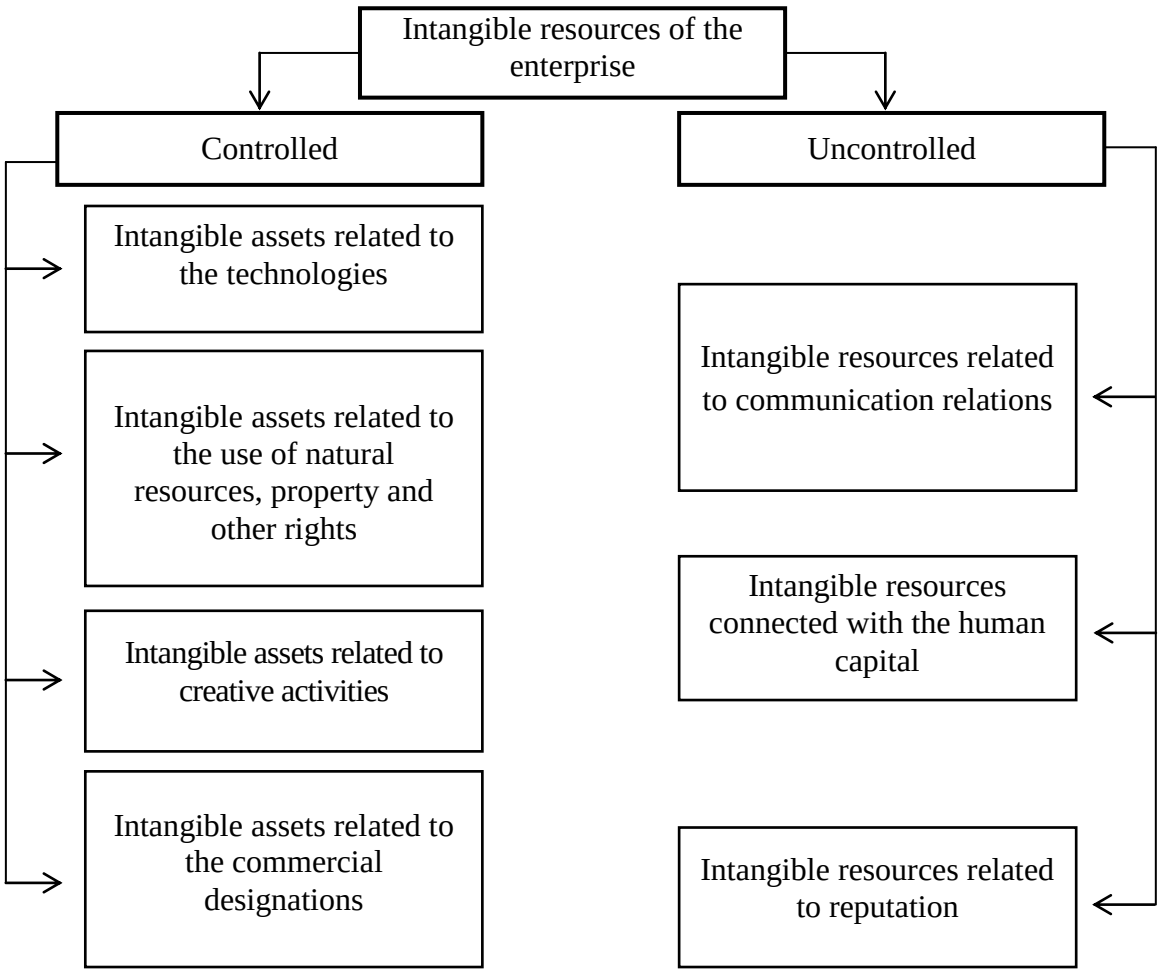

Fig. 2. Classification of intangible resources

The second IR group of the company are those that cannot be controlled by the company and for which the ownership rights cannot be registered, respectively they cannot be sold and classified as intangible assets of the company. The first subgroup consists of IR related to communication relationships, as a part of which the following intangible resources of the company are considered: contracts with suppliers, futures contracts, customer lists, customer contracts, customer relationships, agreements with unions and others.

The second IR subgroup that are not controlled by the company are the IR connected with the human capital of the company. It consists of management processes, management philosophy, management culture, systems of organization, planning, analysis and control of the company, qualification, education, knowledge, competence, entrepreneurial and innovative capacity of the labor force, employment contracts.

The last third subgroup of the uncontrolled IR consists of the IR related to reputation, namely the history of the organization, reputation and image.

Thus, the author's classification of IR of the company provides for the allocation of a separate sub-group of resources that can be controlled by the company. Controlled, proprietary IR are suggested to be identified with intangible assets of the company. Herein the goodwill, human, organizational, communication capital, as components of IR cannot be controlled by the company, they can not be registered into ownership, consequently, they can not be integrated to the assets of the company or sold separately from the company. This means that goodwill, human, organizational, communication capital cannot be attributed to intangible assets compose a separate IR group.

3. Conclusion

Thus, in the process of historical development of the productive forces, there were changes in their composition and structure. Leading positions among other resources were held by raw material, logistical, financial and human resources. Recently intangible components of the company's activities acquired a great significance as a part of the resources. It is thanks to the latest technologies, commercial designations, human capital, goodwill and other intangible components, companies are able to take advantage in the competition. In the leading economies of the world the intangible resources of the companies has exceeded the material in value.

Scientists believe that the Ukrainian economical lag in comparison with the leading countries is caused by a low level of intangible resources of domestic companies. Thus, further research should focus on improving the level of development and efficiency of the use of intangible resources of the companies, which gives place to the qualitative development of the Ukrainian economy.

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Summary

In this article, the author attempts to identify and analyze the main prerequisites of agro-industrial integration in Ukraine at the institutional level: the institutional environment and transaction costs; forms and mechanisms of interaction between the participants, the measures of state support. The implicit constraints of integration processes in the investigated area were examined.

A combined approach to a reasonable assessment of the benefits of integration was proposed. Finding a balance between the obvious economic interests and implicit constraints will actively involve farmers in the integration processes and thus contribute to the removal of the domestic agricultural sector out of the crisis.

Keywords: integration, the agro-industrial complex, the institutional environment, taxation.

JEL classification: O320

UD classification: 338.432:334.012. 82(477)

Date of acceptance: 07.10.2014.

ANALYSES OF CAPITAL STRUCTURE AND FIRMS' PERFORMANCE IN UKRAINE: BASIC STATISTICS AND STYLIZED FACTS

Babalola Yisau Abiodun*

1. Introduction

A triangulation analysis cannot be over-emphasized going by the fact that the empirical literatures on capital structure are replete with varying and distinct measures of leverage ratios. While all of these different measures lack consensus, some measures are incorrectly formulated [1]. Besides, Welch (2011) emphasized two common problems in capital structure research thus; Firstly, it is not clear whether non-financial liabilities should be considered debt and that they should never be considered as equity. Secondly, equity-issuing activity is not synonymous to capital structure changes.

However, empirical literatures are found to align with these two pitfalls. Potential investors will also be interested in the results of the capital structure analysis, since those results can make it easier to decide whether to hold, sell or acquire more shares of the company stock. By comparing the analysis results with those from prior periods, it is possible to spot positive or negative trends that are emerging, then, decide if the business is likely to continue profitability in the future. From this perspective, the capital structure analysis can aid owners in making changes that strengthen the business while also allowing investors to determine to what extent they wish to be involved with that company.

Going by these dynamics, it becomes imperative to provide a holistic analytical perspective to capital structure through a triangulation analysis; the benefit of triangulation includes: "increase confidence in research data, creating innovative ways of understanding a phenomenon, revealing unique findings, challenging or integrating theories, and providing a clearer understanding.

As such, we undertake analyses through the use of ratio analyses and the use of theoretical analyses of trend descriptive and tabular analyses. Apart from this introductory aspect, the remaining part of this study is organized into five other sections. Section two relates the conceptual measurement, methodological framework and the estimations across the various approaches. Section three discusses empirical findings while section four is evaluation of accounting strategy, the last section contains conclusion.

2. Conceptual Measurement and Methodological Framework

Analysis is premised on the attainment of accounting information for decision making. Financial accounting information is the product of corporate accounting and external reporting systems that measure and publicly disclose audited, quantitative data concerning the financial position and performance of publicly held enterprises, Bushman and Smith (2001).

The methodological approach to this study is a triangulation analysis where we employed a barrage of estimation procedures to attaining a valid outcome from the nexus between capital structure and performance of enterprises in Ukraine.

* © Babalola Yisau Abiodun; PhD student; Accounting and Auditing Department; Odessa National Economics University; Odessa; Ukraine.

As such, we conduct analyses through the use of ratio analyses cum statistical analyses and the use of trend descriptive analyses and tabular analyses. For the accounting analyses, we seek to investigate both short-term and long-term analyses of capital structure and firm performance. The sources of data for analyses are the audited financial statements of two selected companies from the internet website.

Tab. 1. Analysis of Capital Structure Ratios

S/N	Capital Structure Analyses	Short-term Measures	Long-term Measures	Explanation
1	Current Ratio/Gearing Ratio	Current Assets Current Liabilities	Fixed Assets Long Term Liabilities	It shows the extent the current liabilities ware used to fund the current assets; it should be greater than 2 but not less than 1.
2	Interest Cover/ Financial Leverage Ratio	Profit + Interest Interest	Debt Equity	The enterprise's vulnerability to new interest bearing obligations. Should exceed 3.
3	Solidity	-	Equity x 100 Total Capital	It is a measure of the vulnerability of the creditor's claim. Should preferably be about 30%.

Tab. 2. Analyses of Corporate Performance

S/N	Performance Analyses	Short-term Measures	Long-term Measures	Explanation
1	Net Profit Margin / Return to Total Capital	Profit before int. & extra ord. costs / Turnover	Operating Result + Fin.Inc / Asset (average value) x 100	Indicates the net surplus in relation to total sales, prior to interest on debts.
2	Operating Margin Ratio / Return On Capital Employed	Operating Results / Turnover x 100	Profit b4 extra-ord. costs / Equity (average value) x 100	The operating margin shows the profit from operation as a percentage of the turnover.
3	Asset Turnover Ratio	Operating result + Fin. Inc. / Turnover x 100	Total Turnover / Total Capital (average value)	How effectively the enterprise uses its total capital and shows how many times the invested capital is "turned over" in a year.

3. Analyses of Corporate Performance in Ukraine

Accounting strategy for the analysis of capital structure and firms' performances would be carry out using a plethora of triangulation analysis which comprises a combination of Trend Descriptive and Tabular Analyses. The use of triangulation analysis is employed in other to use those three analytical techniques to confirm the reliability and validity of the estimate obtained from audited financial statement of the two firms in Ukraine used as samples.

The triangulation analysis becomes imperatives going by the historical nature of financial information and due to the flexible nature of thresholds of accounting ratios. This strategy is thus systematically followed, first, by the analysis of enterprises performance and second by the analysis of capital structure as:

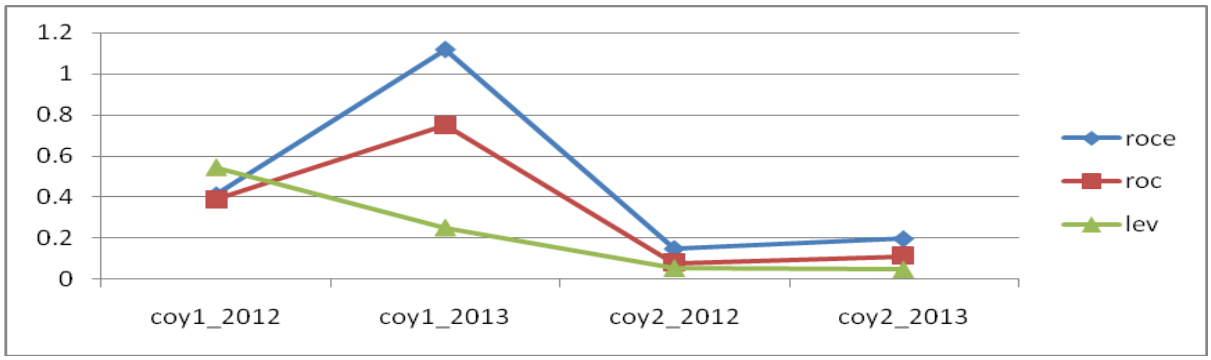

Fig. 1. Accounting Measures of Corporate Performance in Ukraine

Source: Authors' computational work
Note: Coy1 = MICEN ENERGY; Coy2 = ŠKODA AUTO Group

Fig. 1 above shows the trend of return on capital employed (proxied as ROCE), return on capital (proxied as ROC) and the leverage ratio (proxied as LEV) for the two Ukrainian companies such as MICEN ENERGY (proxied as Coy1) and ŠKODA AUTO Group (proxied as Coy2).

The trend indicates that there is an indirect relationship between the accounting indicators such as ROCE and ROC and the gearing level of Coy1 for the periods 2012 and 2013 and, similarly, for Coy2 too but less substantially (Fig. 1).

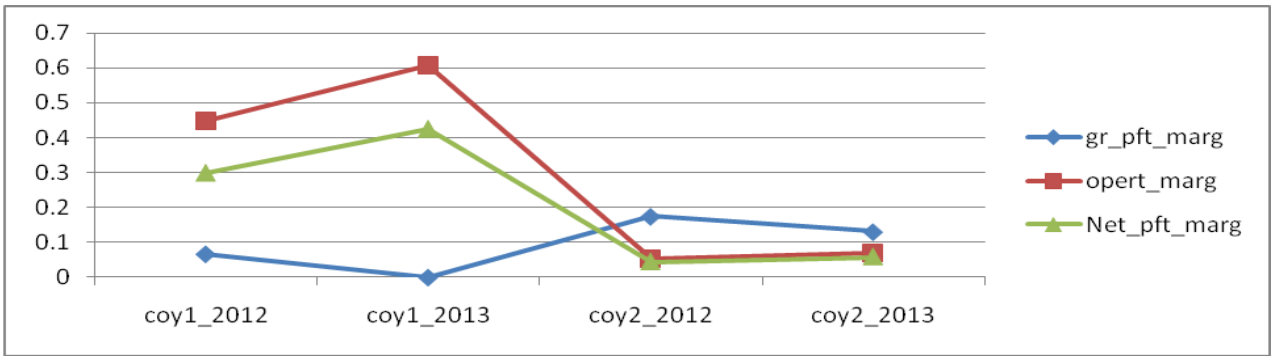

Fig. 2. Accounting Measures of Corporate Performance in Ukraine

Source: Author's Computational work
Note: Coy1 = MICEN ENERGY; Coy2 = ŠKODA AUTO Group

In furtherance of the analyses of enterprises performance in Ukraine, we employ other indicators such as the gross profit margin (proxied as gr_pft_marg), the operating margin (proxied as opert_marg) and the net profit margin (proxied as Net_pft_marg). The figure indicates that the operating profit margin and the net profit margin converge or tarry together for ŠKODA AUTO Group (proxied as Coy2) while it markedly differs for MICEN Energy (Proxied as Coy1). The implication is that ŠKODA AUTO Group does not diversify its businesses within the lines of their business sector in Ukraine while MICEN Energy diversified its business activities away from one line of trade and possibly have a chain of transactions across the petroleum industry.

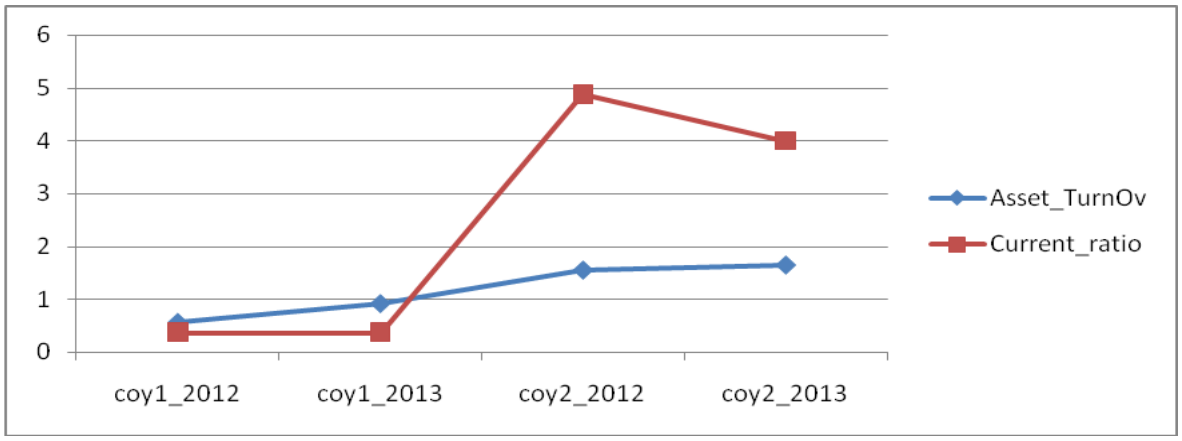

Fig. 3. Accounting Measures of Corporate Performance in Ukraine

Source: Author's Computational work
Note: Coy1 = MICEN ENERGY; Coy2 = ŠKODA AUTO Group

Nonetheless, the current ratio of Ukrainian firms differs (Fig. 3). The trend depicted in Fig. 3 shows that ŠKODA AUTO Group (proxied as Coy2) has more current assets than its current liabilities for the years 2012 and 2013; hence, the reason while the current ratio is above 1.0 ratio as benchmark for the two years while that of MICEN Energy indicates opposite relations where the current liability ratio is more than that of the current asset for the years 2012 and 2013; hence, the reason while the current ratio lies below the 1.0 benchmark (Fig. 3). The implication is that ŠKODA AUTO Group has less absorptive capacity and does have excess liquidity more than what is ordinarily needed in the firm while for MICEN Energy; more working capital is needed for the daily smooth running of the organization.

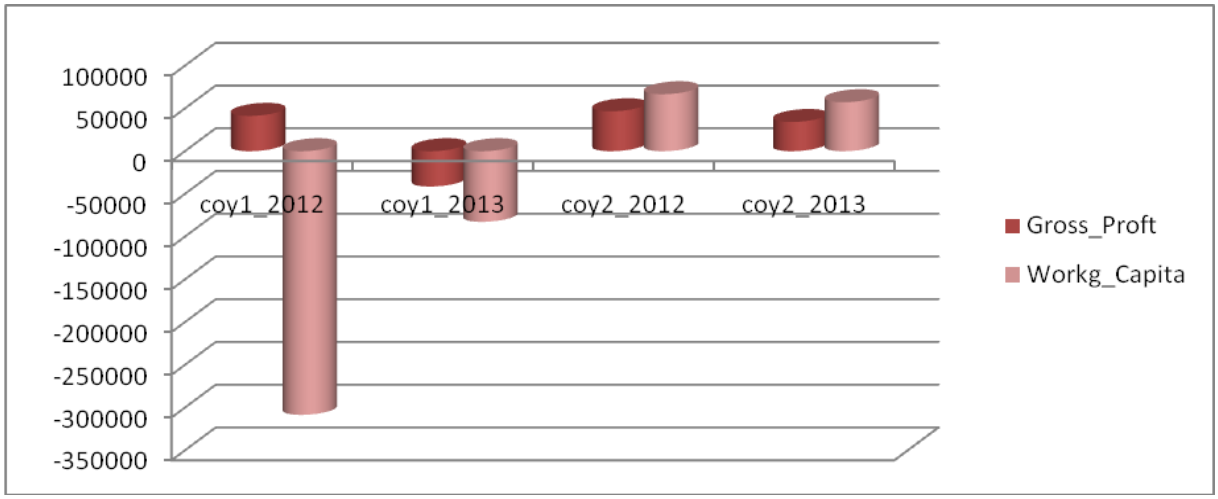

Fig. 4. Accounting Measures of Corporate Performance in Ukraine

Source: Author's Computational work.
Note: Coy1 = MICEN ENERGY; Coy2 = ŠKODA AUTO Group

Lending credence to the submission in Figure 3 above is the trend depicted in Fig. 4 on the gross profit and working capital of both MICEN Energy (proxied as Coy1) and of ŠKODA AUTO Group (proxied as Coy2) respectively. The trend supports the facts that Coy2 is more liquid than Coy1; perhaps, due to the fact that the Coy2 effectively utilizes the assets at its disposal more than Coy1.

4. Analyses of Capital Structure In Ukraine

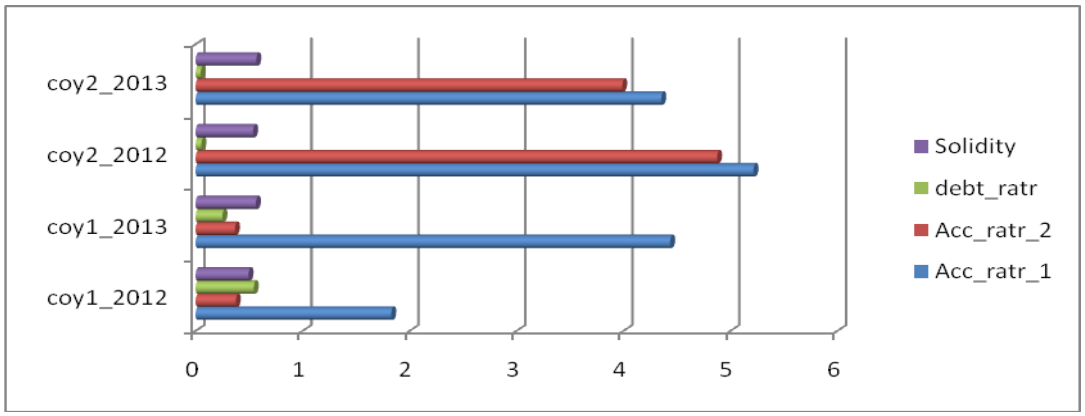

Fig. 5. Accounting Measures of Capital Structure in Ukraine

Source: Author's Computational work.
Note: Coy1 = MICEN ENERGY; Coy2 = ŠKODA AUTO Group

In obtaining the analyses of capital structure in Ukraine, we employ the accounting ratio 1 (proxied as Acc_ratr_1), accounting ratio 2 (proxied as Acc_ratr_2), the debt equity ratio (proxied as debt_ratr) and the solidity ratio (proxied as solidity). The debt equity ratio indicates that MICEN Energy is more geared than ŠKODA AUTO Group.

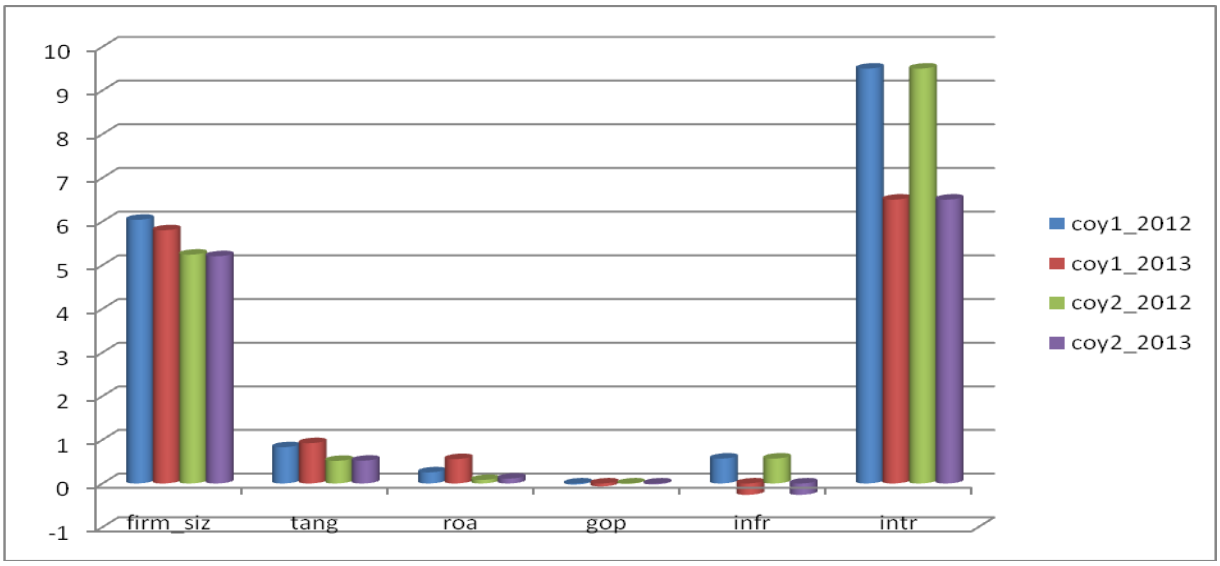

Fig. 6. Empirical Indicators of Capital Structure and Firm's Performance

Source: Author's Computational work.
Note: Coy1 = MICEN ENERGY; Coy2 = ŠKODA AUTO Group

In terms of firm size, asset tangibility and return on asset; however, MICEN Energy seems better positioned than ŠKODA AUTO Group for the two periods under review.

This suggests that, even though, the latter firm seems to have better managerial expertise to efficient management of organization resources, the former firm seems to be more attractive to prospecting and existing investors and can garner needed resources for expansion and maintenance than the ŠKODA AUTO Group. Other indicators for empirical investigation are macroeconomic variables such as the rate of interest and the inflation rate. These are external to the firm as they could not control for it but only try to reduce the risk embedded in the effect.

5. Evaluation of Accounting Strategy

Tab. 1. Comparatives Analyses of Capital Structure and Profitability of Firms in Ukraine

MESUREMENTS	**IST COMPANY**			**2ST COMPANY**		
CAPITAL STRUCTURE	2012	2013		2012	2013	
Acc_ratr_1	1.82950979	4.43709506		5.216407931	4.3540363	
Acc_ratr_2	0.3763044	0.36784493		4.876271876	3.98899666	
Debt/Equity_ratr	0.544	0.251		0.0543	0.0474	
Solidity	0.49441155	0.56435696		0.537831828	0.56821222	
ATO	0.56689688	0.91858886		1.546801549	1.6416999	
Current_ ratr	0.3763044	0.36784493		4.876271876	3.98899666	
FINANCIAL PERFORMANCE	**IST COMPANY**			**2ST COMPANY**		
	coy1_2012	coy1_2013	Average value	coy2_2012	coy2_2013	Average value
ROCE	0.41	1.116	0.763	0.149	0.197	0.173
ROC	0.387	0.749	0.568	0.078	0.112	0.095
LEV	0.544	0.251	0.3975	0.0543	0.0474	0.05085
GPM	0.06683303	0*	0.0668	0.174111732	0.13017373	0.15215
OPM	0.44817671	0.60774479	0.52795	0.051918063	0.06828124	0.0601
NPM	0.29882329	0.42496365	0.3619	0.044067039	0.05845825	0.05126
G_P	41325	-41325	0	46749	34190	80,939
Workg_Capita	-308405	-82641	-391,046	66668	57317	123,985

Source: Author's Computation with Data Sourced from SEC (2013)

The statistics detailed in Table 1 above largely corroborates the trend depicted in figures above. On the whole, it shows that MICEN Energy is fairly better compared to ŠKODA AUTO Group as the former has averaged values of 76,3%, 56.8% and 39,75% for the measures of corporate performance for the periods 2012-2013 while the latter contemporaneously averaged 17,3%, 9,5% and 5,085% respectively, it further lends credence to the submission that the management of MICEN Energy (proxied as Coy1) relatively employed the resources kept at their disposal by the shareholders as well as the owners of the companies to promote their wealth maximization objective better than those of the ŠKODA AUTO Group. The indicators supporting this fact is that the former averaged 6.7%, 52.8% and 36,2% for their gross profit margin, operating profit margin and net profit margin respectively while the contemporaneous figures for ŠKODA AUTO Group are 15,2%, 6.01% and 5,1% for the gross profit margin, operating profit margin and net profit margin respectively.

Interestingly, however, the asset turnover ratio (proxied as Asset_TurnOv) suggests that ŠKODA AUTO Group has succeeded in utilizing the assets kept at their disposal by the owners of the corporate firm to improve the market capitalization of the firm within the enterprise as the company recorded a ratio of 1.55 in 2012 which was improved upon to a tune of 1.64 in 2013. On the other hand, MICEN Energy (proxied as Coy2) only managed to record about an average of what ŠKODA AUTO Group recorded in terms of asset turnover in 2013 but about one-third of SKODA's in 2012; on the average, ŠKODA AUTO Group has enough resources (as indicated by the working capital) to work with in order to generate more returns and revenues to the owners of the business while MICEN Energy (proxied as Coy1) continued accumulating negative working capital that is capable of threatening the going concern of the firm as the firm's negative working capital continue increases between 2012 and 2013. More so, the average gross profit is nil for MICEN Energy in 2012 and the firm recorded Gross loss in 2013 to the tune of 391,046 while ŠKODA AUTO Group have gross profit for both periods as 80,939 and 123,985 respectively.

While the former debt-equity ratio decreases in 2013 from its figure of 0,54 in 2012 to 0,25; the latter is a lowly-geared company as its debt-equity ratio is nearly inexistence which decreases from 0,54 in 2012 to 0,47 in 2013 (Tab. 5). The solidity ratio (proxied as solidity) obtained; which

ordinarily should not be above 30%, is highly instructive for the case of Ukrainian firms in that both MICEN Energy and ŠKODA AUTO Group have solidity ratio above the required benchmark. This implies that creditor's claim is highly vulnerable in Ukrainian corporate firms. These firms have solidity ratio of at least 50% for the periods of 2012 and 2013. In Ukraine, the inflation rate for 2012 is 0,57 but – 0,26 for 2013 while the rates of interest are 9,5% and 6,5% respectively. This portends a very positive outlook for Ukraine since the country maintains a single digit inflation rate and a considerable rate of interest (Tab. 6). This is so in that the various indicators for these companies reflect this submission.

6. Conclusion

Going by the evaluation of accounting strategies adopted by the two selected firms in Ukraine detailed above, the following stylized facts results; most enterprises in Ukraine engaged in over-trading activities cum capital mismatching; solidity ratio of averaged 50 percent suggests that creditors' claim are less vulnerable (that is, well protected); market capitalizations of shareholders' funds are maximized and agency costs are reduced; fair macroeconomics conditions and volatility.

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Summary

This study undertakes analyses of capital structure and firms' performance in Ukraine using triangulation analysis to investigate the two selected companies with their audited financial statement. We follow a guideline of analyses and our strategy of evaluation revolves various measures of capital structure and financial performance ratios; our results show stylized facts thus; most enterprises in Ukraine engaged in over-trading activities cum capital mismatching; solidity ratio of averaged 50 percent suggests that creditors' claims are less vulnerable (that is, well protected); market capitalizations of shareholders' funds are maximized and agency costs are reduced; fair macroeconomics conditions and volatility. The findings of this study deemed to benefit the external investors and share/stakeholders in guiding their proper decision making; professional managers would be better informed to understand the factors empirically driving the level of performance; the present and future government also be guided on how to strengthen the enterprises by providing enabling environment and explore their financing options to achieve better performance for a sustainable development and academicians who will see new empirical evidence in the accounting literature emanating from an emerging economy like Ukraine.

Keywords: analysis, capital structure, enterprises' performance, basic statistics and stylized facts, competitiveness, parametric indexes, integral index.

JEL classification: M210

UD classification: 338.487:339.137.2(477)

Date of acceptance: 18.08.2014.

THEORETICAL REVIEW OF ANALYSIS OF CAPITAL STRUCTURE AND FIRMS PERFORMANCES

Babalola Yisau Abiodun*

1. Introduction

Analyses of financing decisions are one of the most critical areas for accountants and finance managers. It has direct impact on capital structure and financial performance of the companies Gupta, Srivastata and Sharma (2007). For examining the analyses of capital structure practices, capital structure ratios have been used. It is useful for the creditors to know the liquidity position of the firm. Ratio like proprietary ratio, fixed assets turnover ratio etc., are likely to manifest all the major dimensions of the capital structure practices of the company as against only the debt-equity ratio.

Given the nature and purpose which it pursues, financial analysis develops the steps of collecting, shaping and treatment of a range of management information which may clarify the wanted diagnosis and prognosis. Information handled by the financial analysis is given traditionally, by general accounting, which led to the misnomer of "accounting analysis". However, recent evolution led to considerable expansion of information sources handled by the financial analysis, which is profoundly renewed Ungureanu, (2013).

Capital structure is the mix of the long-term sources of funds used by the enterprises. It involves how an enterprise finances its operations in terms of debt and Equity combination with four basic elements namely; ordinary shares, preference shares, debenture and retained earnings. Generally, an enterprise can go for different levels/mixes of debts, equity or other financial arrangement. It can combine bonds, lease financing, bank loans or many other options with equity in an overall attempt to boost the market value of an enterprise. Both theoretical and empirical capital structure studies have generated many results that attempt to explain the analysis of financial structure.

2. Conceptual Measurement and Methodological Framework

Accounting analysis is premised on the attainment of accounting information for decision making. Financial accounting information can be defined as 'the product of corporate accounting and external reporting systems that measure and publicly disclose audited, quantitative data concerning the financial position and performance of publicly held firms' Bushman and Smith (2001).

Thus, financial accounting is the fundamental source of independently certified information about the performance of the executives. Indeed, financial accounting systems provide valuable information to corporate control mechanisms that help to alleviate the agency problem which results from the separation of managers and financiers as well as the shareholders.

Financial accounting information can be defined as 'the product of corporate accounting and external reporting systems that measure and publicly disclose audited, quantitative data concerning the financial position and performance of publicly held firms'. Thus, financial accounting is the fundamental source of independently certified information about the performance of executives. Indeed, financial accounting systems provide valuable information to corporate control mechanisms

* © Babalola Yisau Abiodun; PhD student; Accounting and Auditing Department; Odessa National Economics University; Odessa; Ukraine.

that help to alleviate the agency problem which results from the separation of managers and financiers as well as the shareholders. The use of accounting information in corporate governance mechanisms can be explicit (direct) or implicit (indirect). Financial accounting information is explicitly used in managerial incentive contracts or debt contracts (direct use), but also contributes to the information contained in stock prices (indirect use). Furthermore, financial accounting information is both an output of the governance process, since it is produced by managers, and also an input since it is used in corporate control mechanisms. This is shown explicitly on Fig. 1 below.

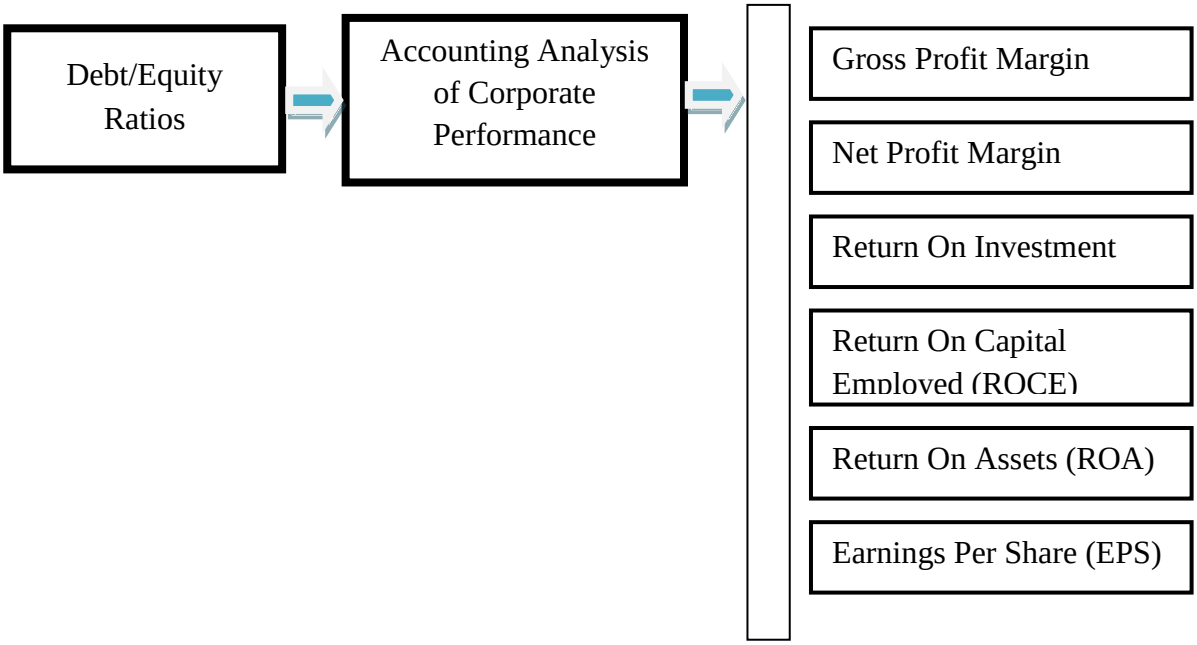

Fig. 1. Conceptual Framework of Accounting Analyses of Capital Structure and Corporate Performance of Firms

As demonstrated in figure 1 above, performance measurement systems were developed as a means of monitoring and maintaining organizational control, which is the process of ensuring that an organization aims at strategies that lead to the achievement of its overall goals and objectives.

Accounting cum financial measures, the key tools for performance measurement systems, play a vital role in every organization as they are often viewed as forward-looking indicators that assist management to predict a company's economic performance and many times reveal the need for possible changes in operations.

However, the choice of performance measures is one of the most critical challenges facing organizations. Poorly chosen performance measures routinely create the wrong signals for managers, leading to poor decisions and undesirable results. There are enormous hidden costs in misused performance measures. Shareholders pay the bill each day in the form of overinvestment and acquisitions that do not pay off, etc. It is not that management is poor. Simply, it is the wrongly chosen performance measures, which in turn push management to take improper decisions.

An exploration of empirical literature reveals that the direct role of accounting information in debt contracts has not received much attention from accounting researchers, although it has developed significantly, particularly in private placements of debt and private lending agreements Sloan (2001).

Performance pricing, which involves linking the interest rate that is charged on debt to accounting-based measures of financial health, is a frequent practice in financial contracting.

However, there has been limited research on this explicit governance role of financial accounting information. Essentially, the diagrams below illustrate the steps to be taken for the analysis of financial accounting information such as capital structure ratios and financial performance indicators.

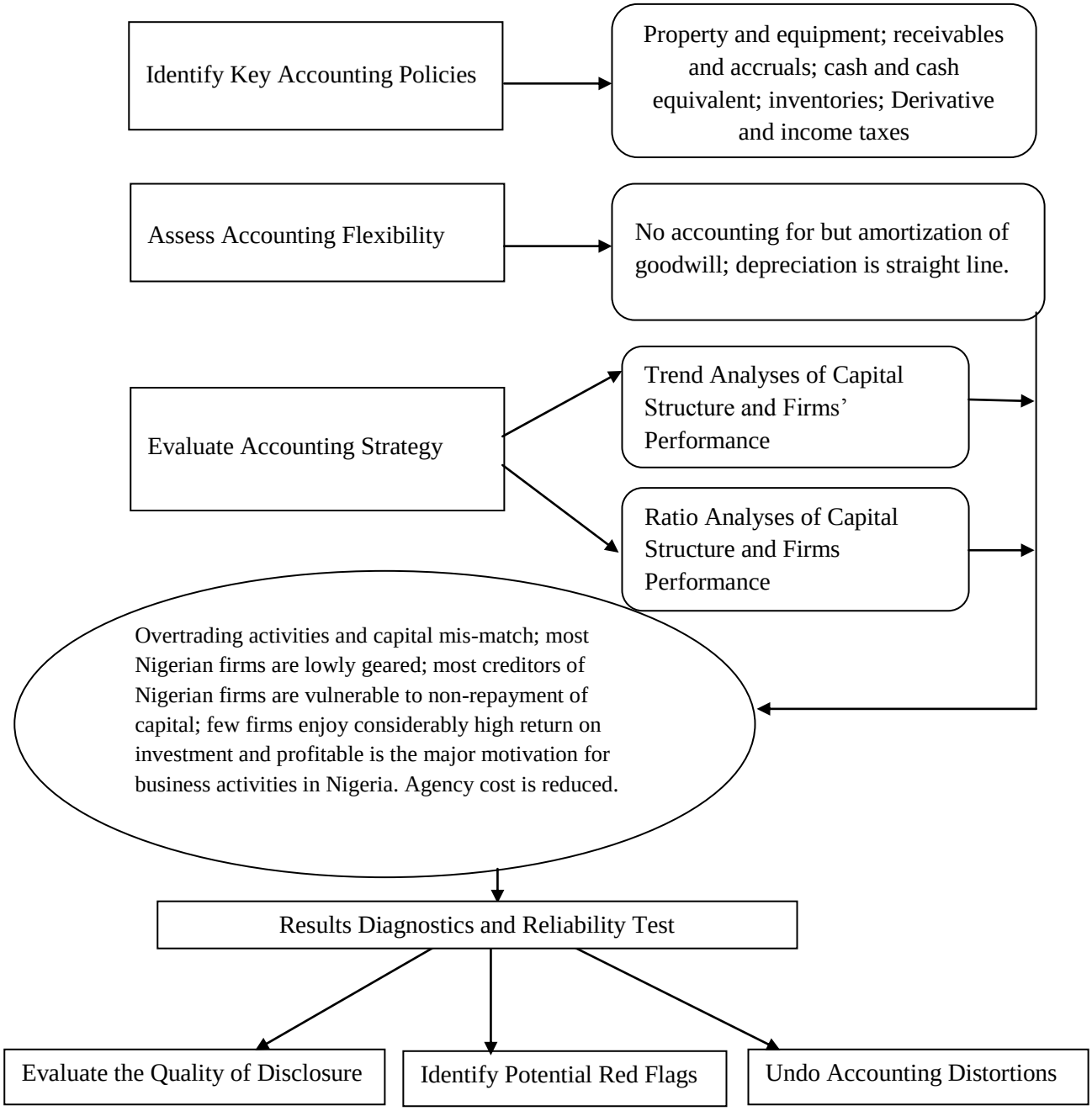

Fig. 1. Steps for Analyses of Capital Structure and Firms Performance

3. Discussion of Steps

Identify Key Accounting Policies. There are several different accounting policies to combine or shorten the accounting information; the first one is "Principal of Consolidation" which basically says that all intercompany balances and transactions have been eliminated. Some enterprises use what is called the "Use of Estimates" which could distort the numbers going on the financial statements. To derive the quantitative measures which consist of screening ratios which are to be used to assess the reliability of financial disclosures; as stipulated by the Generally Accepted Accounting Principles (GAAP); the Standard of Accounting Statements (SAS) and the International Financial Reporting Standards (IFRS).

Qualitative measures must be taken into account to fully evaluate the past accounting performances and successes of the Ukrainian enterprises sectors.

Key Accounting Policies. In order to measure the key success factors and risks pertained to enterprises sectors, it is necessary to evaluate the policies and estimates the enterprises use. Critical accounting policies are those that are most important to the portrayal of the enterprise's financial condition and the results of operations and require management's most difficult, subjective and complex judgments. The enterprise most critical accounting policies are: Revenue Recognition; Income Taxes; Net Accounts Receivable; Net Inventories; Cash and Cash Equivalents; Net Property and Equipment; Cost of Goods Sold; Shipping and Handling Costs; Net Goodwill and other Intangibles; Accrued Expenses; Derivatives; Stock Options, etc. Revenue Recognition is an important factor, along with Inventory accounts. Most firms are more focused on Inventory management as they are a retail company, whereas; goodwill and intangibles are not large factors in their financial statements.

Degree of Potential Accounting Flexibility. There are ways for enterprises to be Flexible in the Accounting Methods. But, by using the FIFO method to account for Inventory, it is hard to manipulate. Net Property and Equipment is made to be flexible because they use straight line depreciation, as opposed to the Double Declining method. Net Goodwill and intangibles is an area that is very flexible. There is no way to account for this asset, and they are not amortized, but only tested for impairment maybe annually.

4. Reliability Test of Accounting Analyses

Quality of Disclosure. Anchoring on the theory of Positive Accounting Theory; the following are relevant accounting standards – local and international – as observed by these firms that seek to guarantee the quality of financial disclosure of these firms and thus lend credence to the conclusion reached in our estimates.

Identify Potential Red Flags. In the financial records; there is a section categorized "Changes in and Disagreements with Accountants on Accounting and Financial Disclosure". The explanation in this section by the enterprises was "Not applicable". So therefore there were no changes. Considering the fact that all the enterprises are well established company and they pride their selves with their critical accounting principles. There have not been any recent changes or cause for concern or Red Flags. There have been increases in accounts payable that is due to the payoff of short and long term debt. The other increases are all minimal increases and follow the growth of the company.

Undo Accounting Distortions. After reviewing all pertinent financial data of the firms, one can conclude that the financial reports display transparency in the quality of disclosure. The company does a very good job as the extensive explanation of the increases and decreases that offset each other. There was no indication of misleading activity within the financial reports. The statement of cash flows was concurrent with the disclosures in the footnotes. The Critical accounting policies were apparent in the financial statements of the enterprises, and there was no distortion to enhance the true performance of the enterprises. All methods of accounting were clearly explained in the footnotes to the financial statements. Considering no accounting distortions were revealed, there is no need for any adjustments or corrections to the financial statements.

5. Conclusion

If the goal of company sustainability is to establish local economies that are economically viable, environmentally sound and socially responsible then it requires full participation from all stakeholders to determine needs and to identify and implement innovative and appropriate solutions. The quality of our examination was undertaken under three headings of quality of

disclosure, identification of potential red flags and undoing accounting distortions. Virtually all firms must observe the Generally Accepted Accounting Principles (GAAP) and also prepare their financial reports in accordance with the local and international accounting standards and the statement of accounting policies.

The present and future government as well as policy makers need to strengthen the enterprises by providing enabling environment for them as the role of government in the Ukrainian economy is still very huge and the effect of government policy on enterprise's performance and financing choices cannot be overlooked. The government would be able to re examine the challenges that are impeding the enterprises to explore fully their financing options to achieve better performance for a sustainable development. The findings of our study will guide the government in the formulation and implementation of relevant policies that can ease these constraints especially the poor institutional quality and unfavourable macroeconomic environment.

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Summary

This paper examines the theoretical review of analysis of capital structure decisions of enterprises in an emerging economy of Ukraine. The capital structure of a firm consists of a particular combination of debt and equity issues to relieve potential pressures on its long-term financing.

This paper examined the steps undertaken for the analysis of financial accounting information such as capital structure ratios and financial performance indicators from financial report of an enterprise with the aim of discovering major determinants of its financial structure and also highlighted issues such as financial distress, bankruptcy threats, solvency problem, risk of default due to unstable economic and political situations as possible dangers that may plague the enterprises, whose capital structure may lean towards debt financing.

Keywords: Accounting, Ratio Analysis, Capital Structure and Firms' Performance.

JEL classification: M210

UD classification: 336.71:658.8

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MODELS OF INNOVATION PROCESS IN KNOWLEDGE ECONOMY: IMPLICATIONS FOR INNOVATION POLICY IN UKRAINE

Olena Bilous*

1. Introduction

Ukraine announced transition to innovative model of economic development on the basis of creation of knowledge economy. This model provides for the implementation of national economic development strategy aimed at significant improvement of economic performance, GDP growth through wide focus on the creation, development in production, market promotion of technological as well as organizational and management innovation. However, the lack of a clear strategy, blurring objectives and priorities of the state innovation policy and the main factor, in our opinion – the lack of serious methodological framework that would meet the latest modern understanding of the innovative process, resulted in low rates of innovation development of Ukrainian economy.

The task is to study the modern approaches to innovation process, which will meet the requirements of knowledge economy formation, and to outline main implications of these methodological issues to the innovation policy in Ukraine.

2. Theoretical background

The problems of innovative development of national economy attract attention of many native and foreign researchers. Significant contribution to the study of these processes was made by such Ukrainian scientists as V. Heyets, V. Semynozhenko, Yu. Bazhal, B. Malitskiy, L. Fedulova, H. Androshchuk and others. Mainly Ukrainian authors associate low level of innovation development with the low level of S&T spending, or consider innovation success of the country to be dependent on the degree of activity in the commercialization of results of scientific research.

We can agree with the P. Bubenko and V. Gusev, who state that one of the distinguishing features of Ukraine's scientific discussion on innovation and innovation policy is false identification of innovation and Science and Technology (S&T) activities [1, p.30] and statements on their tough cause-and-effect connection. In one form or another, Ukrainian authors underline that effectiveness of innovation processes in economy depends on the state of science, and that the support and development of the last is the prerequisite of the intensification of innovation processes.

The mentioned identification of innovation and S&T activities is largely connected with the domination of engineering approach to the processes of development which states that "science can do everything" if it is well-financed [1, p.31]. The engineering approach is based on the so-called "linear" model of innovation activities, according to which "innovation is a process of discovery which proceeds via a fixed and linear sequence of phases. In this view, innovation begins with new scientific research, progresses sequentially through stages of product development, production and marketing, and terminates with the successful sale of new products, processes and services" [2, p.14]. This approach to innovation was dominating in the domestic scientific thought and underlied massive investments in science, which had place after World War II. The same conclusion is made by T. Gareev, who points that in domestic literature still prevails linear model of innovation, which, in his opinion, is wrong in the economy, in which knowledge is considered to be the main resource. Innovation process is presented mainly in the narrow sense, through the provision of its separate stages, as the linear model, while in the foreign literature this model of the

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innovation process refers to the 1950–1960-th years [3].

The vice chairman of Federation Council of Ukrainian Employers, A. Grishfeld, considers that Ukraine has a "linear model" of innovative policy, which is supported by obsolete approaches to scientific and technical development. These approaches require large-scale government programs of budgetary funds involvement [4].

Bellow we will analyze the main characteristics and distinguishing features of innovation and models of innovation process in knowledge economy and their implications to innovation policy.

3. Results

a) Evolution of knowledge economy concept

The concept of a knowledge economy comes from Fritz Machlup [5, p.3]. In 1962, he published an influential study that measured the production and distribution of all kinds of knowledge in the United States [6]. The author estimated that, in 1958, the knowledge economy accounted for $136,4 million or 29% of GNP. Machlup was the first to measure knowledge as a broad concept, while other measurements were concerned with the production of scientific knowledge, namely research and development (R&D), not its distribution.

Machlup's calculations gave rise to a whole literature on the knowledge economy, its policies and its measurement. The first wave, starting in the 1970s, was concerned with the so-called information economy. Using Machlup's insights and the System of National Accounts as source for data, M. U. Porat calculated that the information economy amounted to 46% of GNP and 53% of labour income in the United States in 1967 [7].

The second wave of studies on the knowledge economy started in the 1990s arising from limitations in National Systems of Innovation, the then-current conceptual framework guiding science and technology policies [8, p.5]. For several decades, economists have been criticized for their failure to integrate institutions into theories and economic models. Partly as a response to this situation, scholars in the field of science and technology studies invented the concept of national systems of innovation (NIS). According to R. R. Nelson, NIS "is a set of institutions whose interactions determine the innovative performance of national firms" [9, p.4]. For B.-A. Lundvall, it "is constituted by elements and relationships which interact in the production, diffusion and use of new and economically useful knowledge" [10, p.2]. These elements of institutions are firms, public laboratories and universities, but also financial institutions, the educational system, government regulatory bodies and others that interact with the former.

There are two families of authors in the NIS literature [8, p.6] – centering on the analysis of institutions and describing the ways countries have organized their NIS; and focusing on knowledge and the process of learning. From the latter group, the concept of the knowledge economy reemerged.

Lundvall launched the concept of a learning society or a learning economy in his book on NIS. According to him, "the most fundamental resource in the modern economy is knowledge and, accordingly, the most important process is learning" [10, p.1]. For Lundvall, however, learning is not located in R&D departments only, as suggested until recently, but comes also from what he calls routine activities in production, distribution and consumption. And "the most important forms of learning may fundamentally be regarded as interactive learning" [10, p.2], that is learning from interactions between the different institutions of NIS [11, p.26].

The learning economy involves the capability to learn and to expand the knowledge base. It refers not only to the importance of the science and technology systems – universities, research organizations, in-house R&D departments and so on – but also to the learning implications of the economic structure, the organizational forms and the institutional set-up.

D. Foray, who is the one behind the current concept of the knowledge-based economy, in his article written with P. David, criticized the concept of NIS for placing too much emphasis on national

institutions and economic growth, and not enough on the distribution of knowledge itself [12, p.4]. However, Foray and David concluded similarly to Lundvall on a number of points, among them: "an efficient system of distribution and asses to knowledge is a sine qua non condition for increasing the amount of innovative opportunities. Knowledge distribution is a crucial issue" [12, p.40].

Thus, a central characteristic of a NIS is the way the knowledge is distributed and used. As K. Smith, author of the OECD (Oslo) methodological manual on measuring innovation put it: "The overall innovation performance of an economy depends not so much on how specific formal institutions (firms, research institutes, universities, etc.) perform, but on how they interact with each other" [13, p.72]. Indeed, "knowledge is abundant but the ability to use it is scarce" [11, p.31].

b) Models of innovation in knowledge economy

Analyzing innovative process, B.-A. Lundvall distinguishes two approaches to innovations [14, p.8]:

- linear model (supply approach), starting within basic research and ending in economic growth. The results from basic research are regarded as inputs to applied research. Inventions taking place within science are supposed to give rise to innovations. As innovations become diffused they affect productivity and growth in the sphere of production. Such a perspective corresponds to a technology policy supporting science and R&D activities;
- demand approach, which emphasizes the importance of demand as a factor stimulating and directing innovations. When demand grows, it will pull R&D inventions and innovations forward, and result in productivity growth. Innovative activities are assumed to adjust automatically to the market forces.

Both approaches can be accused of regarding the system of production as a black box. The supply school concentrates upon the bottom of the black box where R&D is introduced and expects beneficial effects to come out at the top of the box. The demand school assumes that changes at the top of the box – changes in demand – will have beneficial effects at the bottom. A user-producer approach might be regarded as one revealing the content of the black box. The network of user-producer relationships transmits signals from the top to the bottom and vice versa.

Lundvall also criticizes traditional definition of innovations by Schumpeter, who saw them as "new combinations", which can be separated from invention that becomes an innovation only when the entrepreneur brings it to the market. He follow Schumpeter in these respects, but adds to the event of the first market introduction of new combination the process of its diffusion and use [15, p.10].

The British sociologist, Roy Rothwell distinguishes 5 generations of innovation process models [16]:

1. "Technology push" model (from 1950 to the mid-1960's).
2. "Market pull" model (from the mid 1960's to early 1970).
3. "Coupling of R&D and marketing" model (from the mid 1970's to the mid-1980's).
4. "Integrated business processes" model (from the early 1980's to the mid-90's).
5. "System integration & networking" model (from the 1990's).

T. Gareev adds to this classification the 6th model of innovation process "based on knowledge and training", which is grounded by a "Knowledge-based theory of the firm" by R. Grant. The main asset of a company is considered to be tacit knowledge. Innovative process continues to be an integrated network process, bus start to focus more on mechanisms of creation, distribution and use of all types of knowledge. The faster the company is able to learn, the more innovative it is, and the faster it is able to respond to market changes with innovative products and services [3].

OECD, defining models of innovation process in knowledge-based economy, points at the processes of knowledge distribution and at the network characteristic of the modern economy, and considers that "in knowledge-based economy ideas for innovation can stem from many sources,

innovation can assume many forms, including incremental improvements to existing products, applications of technology to new markets and uses of new technology to serve an existing market. And the process is not completely linear" [2, p.15]. This is systemic or interactive model of innovation.

The authors [17] argue that definition of innovation models is based on changes in the process of knowledge creation itself, i.e. at difference between tacit and codified knowledge. Codification of knowledge implies that knowledge is transformed into "information" which can be easily transmitted through information infrastructures. It is a process of reduction and conversion which renders the transmission, verification, storage and reproduction of knowledge especially easy. In contrast to codified knowledge, tacit knowledge is the knowledge which cannot be easily transferred because it has not been stated in an explicit form. The fast development of ICT gives a strong impetus to the process of codification by increasing the economic value of codified knowledge. Most knowledge, which can be codified and reduced to information, now can be transmitted over long distances at very limited cost. Codification is important for economic activity for four main reasons:

– codification reduces costs of the process of knowledge acquisition and technology dissemination;

– through codification, knowledge is acquiring more and more the properties of a commodity;

– codification facilitates knowledge externalization and allows firms to acquire more knowledge than previously at a given (but not necessarily lower) cost;

– codification helps directly to speed up knowledge creation, innovation and economic change.

But there are two important limits to the codification process:

– the fact that codified and tacit knowledge are complementary and co-existing means that there are natural limits to codified knowledge. The main point here is that codification is never complete, and some forms of tacit knowledge will always continue to play an important role;

– increased codification does not necessarily reduce the relative importance of tacit knowledge. Actually, easier and less expensive access to information makes skills and capabilities relating to the selection and efficient use of information even more crucial than before.

This means that tacit knowledge is still a key element in the appropriation and effective use of knowledge, especially when the whole innovation process is accelerating.

The significance of tacit knowledge highlights the role of learning, which has become the key to successful economic and market operations. This means that the most important factor for individual firms is no longer having a given set of skills, but rather being able to acquire new ones effectively. A firm's capacity to learn and transform in this new context is a crucial competitiveness factor. There is a definite need to constantly rebuild the skills of the individual and the technological and organizational competencies of the firm.

Based on two types of knowledge in the knowledge economy M.B. Jensen, B. Johnson, E. Lorens and B.-A. Lundvall distinguish two modes of innovation [18]:

– the Science, Technology and Innovation (STI) mode – based on the production and use of codified scientific and technical knowledge;

– Doing, Using and Interacting (DUI) mode – an experienced-based mode of learning based on tacit knowledge.

c) Implications to innovation policy

The terms "national system of innovation" and "knowledge-based economy" have been around for more than 20 years and today they have become widely spread among policy makers as well as among scholars all over the world [19].

The wider implications of an innovation and learning perspective on general economic policy have not been seriously considered and worked out. Innovation policy has been added to an economic policy based upon static economic theory. Policy implications have been worked out on the basis of a narrow definition of innovation system where the focus is on science based innovation.

Despite the broad acceptance of the literature on knowledge economy, on national innovation systems, on the interactive nature of innovation process, there remains a bias among scholars and policy makers to consider innovation processes largely as aspects connected to formal processes of R&D, especially in the science-based industries [18].

B.-A. Lundvall, one of the authors of NIS concept, argues that during the process of diffusion there has been a distortion of the concept as compared to the original versions. Often policy makers and scholars have applied a narrow understanding of the concept and this has gives rise to so-called "innovation paradoxes" which leave significant elements of innovation-based economic performance unexplained. Such a bias is reflected in studies of innovation that focus on science-based innovation and on the formal technological infrastructure and in policies aiming almost exclusively at stimulating R&D efforts in high-technology sectors [19].

At the policy level this can be seen in the emphasis on benchmarking variables related to STI and in their focus on such instruments as tax subsidies to R&D, the training of scientists in high-tech fields such as ICT, bio-, nano-technology and strengthening the linkages between firms and universities.

As it was shown models of innovation in knowledge economy emphasize that innovation is a systemic and interactive process in which firms interact both with customers and suppliers and with knowledge institutions. Innovations can't be reduced to scientific innovations. Yet, when one turns to policy analysis and prescription, as well as to the quantitative survey-based studies, there is a clear bias to consider innovation processes largely as aspects connected to formal scientific and technical knowledge and to formal processes of R&D. At the European level, this kind of bias can be seen by examining the empirical measures used and the supporting research undertaken for EU bench-marking exercises, such as Trendchart's [20] annual ranking of the innovative performance of EU member nations, which is based largely on conventional S&T measures such as R&D expenditures, patenting, the share of the population with tertiary education, the weight of S&E graduates in the workforce, ICT expenditures and the importance of venture capital. None of the 22 individual measures which are used to construct the 'summary innovation index' for EU member countries are designed to capture organizational aspects linked to informal processes of learning.

The basic provisions of Ukraine's legislation on innovation policy and National Innovation System show that Ukrainian policymakers use narrow understanding of the concepts of "innovation", "innovation policy" and "NIS". Such an approach focuses on science-based innovation and on the formal technological infrastructure and on policies aiming at stimulating R&D efforts in high-technology sectors. Thus, according to the article 1 of Law of Ukraine "On innovation activity" of 4 June, 2002, "innovation activity" is set up as the activity directed to use and commercialization of results of scientific research and elaborations and stipulates the issue to the market new competitive goods and services [22]. And the main "purpose of the state innovation policy" is to create socio-economic, organizational and legal conditions for the effective reproduction, development and use of scientific and technical potential, to ensure implementation of modern environmentally friendly, safe, energy – saving technologies, production and implementation of new competitive products.

In accordance with the Concept of the development of the national innovation system, approved by the Cabinet of Ministers of Ukraine [23], the "national innovation system" is defined as a complex of legislative, structural and functional components (institutions) that participate in the process of creating and using of scientific knowledge and technology and determine legislative, economical, organizational and social conditions to secure the innovation process.

However, along with the other main components of the NIS (state controlling, knowledge genera-

tion, innovation infrastructure, and production), [23] identifies the subsystem of education, which consists of the institutes of higher education, research and methodological institutes, scientific production enterprises, state and local boards of education, as well as educational organizations that provide training, retraining and advanced training.

Ukraine has to move away from a model of increasing budget spending on science regardless of the results. It is necessary to encourage interaction between knowledge sector and sector, where knowledge is transformed into concrete economic results. Special attention should be given to measures aimed at development of Doing, Using and Interacting – experienced-based skills, which are based on tacit knowledge. It is necessary to implement following measures:

- create effective national and regional innovation systems with an accent on innovation culture, stimulation of interactions of key innovation actors and institutions;
- develop communication and operative interaction of academia and business environment;
- improve academia's understanding of innovation and entrepreneurship including business skills;
- create innovative environment in research and scientific institutions and universities;
- implement entrepreneurship education of researchers.

4. Conclusions

Ukraine announced transition to innovative model of economic development on the basis of creation of knowledge economy. Unsuccessfulness of its innovation policy is conditioned, in our opinion, with the lack of serious methodological framework that meets the latest modern understanding of the innovative process, which results in low rates of innovation development of Ukrainian economy.

One of the distinguishing features of Ukraine's scientific discussion on innovation and innovation policy is false identification of innovation and S&T activities and statements on their tough cause-and-effect connection. Looking into the nature of innovation and innovation process, the authors of knowledge economy and NIS concepts highlight the importance of distribution of knowledge, while previous studies were concerned with the production of scientific knowledge, namely research and development (R&D), not its distribution. Modern models of innovations and innovation process are based at user-producer approach, networking, organizational and management innovations, learning and training of organizations, importance of skills and codified knowledge.

The wider implications of an innovation and learning perspective on general economic policy have not been seriously considered and worked out. Innovation policy has been added to an economic policy based upon static economic theory. Policy implications have been worked out on the basis of a narrow definition of innovation system where the focus is on science based innovation. The basic provisions of Ukraine's legislation on innovation policy and NIS show that Ukrainian policymakers use narrow understanding of the concepts of "innovation", "innovation policy" and "NIS". They focus on science-based innovations and on the formal technological infrastructure and on policies aiming at stimulating R&D efforts in high-technology sectors. Ukraine has to move away from a model of increasing budget spending on science regardless of the results. It is necessary to encourage interaction between knowledge sector and sector, where knowledge is transformed into economic results. Special attention should be given to measures aimed at development of DUI – experienced-based skills, which are based on tacit knowledge.

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Summary

The article analyses modern Ukrainian discussion on innovation and innovation policy and proves that that in domestic literature still prevails linear model of innovation, which is wrong in the knowledge-based economy. Evolution of knowledge economy and National Innovation System concepts are considered. The models of innovation process in knowledge economy are presented. The author argues that modern innovation policy is worked out on the basis of a narrow definition of innovation system and is focused is on science based innovation. Basic Ukrainian legislation on innovation policy and NIS is analyzed, necessary measures to build effective innovation environment are proposed.

Keywords: the knowledge economy, tacit and codified knowledge, innovation, innovation process, "linear" and "interactive" models of innovation, learning economy, national systems of innovation.

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UD classification: 330.34

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INTERNAL AUDIT WITHIN THE SYSTEM OF FINANCIAL CONTROL

Ruslana Dimitrova*

1. Introduction

Internal audit is constantly evolving and improving taking into account the needs of businesses and stakeholders. For practice, it is important the internal audit to be studied in terms of the theory of financial control in order to differentiate its functions within the system of the financial control and governance processes.

Object of study: internal audit and its functions.

The objective of this article is: by theoretical justification of the nature of internal audit functions and empirical study of the practice to formulate conclusions and recommendations for its improvement within the system of financial control.

1. To achieve the objective, the following tasks should be implemented:
2. To study the role and function of internal audit within the system of financial control.
3. To determine the nature and functions of internal audit.
4. To examine how the functions of internal audit are implemented in practice in Bulgarian enterprises and the opportunities for its improvement.

2. Place and role of internal audit within the system of financial control

Historically, concepts of financial control have occurred at different times and each of them has influenced the development of internal audit by determining its role, functions and responsibilities. Review of scientific literature [1–10] allowed them to be systematized in two directions: the first concept considered the financial control as an organized activity, and the second concept defines it as function of management. For this end, theory of control uses different approaches to study the nature of financial control.

One group of authors [4] used the legal approach to clarify the nature of financial control as an organized activity. Originally, financial control has been associated with verification of documents, and according to current understanding, it is perceived as an activity where different methods for qualitative and quantitative evaluation of the objects of financial control are applied to confirm the compliance with existing regulations and laws.

Second group of authors [11] used the governance approach and present financial control as a stage or function of management, which purpose is to assess the implementation of management decisions and goals using the tools of analysis and accounting.

Third group of authors [3] used cybernetic approach to present the financial control as a way of receiving feedback through procedures, testing and integration of control systems in business processes for the purpose of efficient implementation.

Another group of authors [12; 13; 15;] explored financial control as an activity for minimization of risk arising in the management of its objects from the perspective of risk management theories. They also used a system approach, but the control system is viewed not in terms of "management – obedience" principle, but contrary to the necessary for the control – control environment, risk assessment; information and communication; control procedures and monitoring.

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Approaches applied to study the financial approach, history and development of internal audit [16] allow the role, functions and responsibilities of the internal audit within the system of financial control to be summarized as follows (Tab. 1).

Tab. 1. Role, functions and responsibilities of internal audit in the system of financial control

Period	Approaches to study the financial control	Role if internal audit	Functions of internal audit	Responsibility of internal auditor
In the early 20th century	Legal approach	Confirmation of reporting records and the status of assets and liabilities	Control. Information. Regulatory (influential).	Not specially defined
20th century 20's/40's	Governance approach	Testing and evaluation of control systems	Information. Control. Evaluation Regulatory (influential).	To Operations manager
20th century 40's/50's	Cybernetic approach	Testing, evaluation and analysis of accounting information and information systems	Information. Control. Evaluation Analytical.	Administrative to management
20th century 90's	Risk-oriented approach	Identifying. Testing. Assessment and advice on financial risk	Information. Control. Evaluation Analytical. Advisory.	Administrative functional

Professional audit and accounting associations when developing various control frameworks of systems of internal, including financial control (1, 2, 3) use risk-oriented approach that allows the internal audit to be positioned within the organizational structure in a way that establishes itself as an independent evaluation and consulting activity.

In practice, this is achieved by its functions, as revealing of their composition and content is a prerequisite for:

- Efficient organization of work of the internal audit department;
- Use of available resources in the execution of audit engagements and consultations;
- Determining the role and place of internal audit within the system of financial control.

3. Function of internal audit – theory and practice

Scientific literature presents different understandings of the nature and functions of internal audit.

Some authors [17], analyzing the definition of internal audit of The IIA [15], assume that it fulfils two main functions: control and information and advisory.

Other authors [8] considering the content of the problems solved by internal audit in practice, assume that it fulfils coordination, advisory, control, evaluation, analytical, preventive and information functions.

The third group of authors [18] assume that the internal audit fulfills the following functions: confirming, information, analytical, project-methodological, direct and indirect feedback, protective.

To define the function of internal audit and to differentiate the responsibility of internal auditors in terms of theory and practice, its relationship with and difference from internal control is of importance.

Unlike internal control which is a governance function, internal audit is an evaluation activity. It also, like the internal control, can be viewed as a process that is organized differently. Internal control can be organized both in the enterprise and outside it, because it is relatively independent from the governance process.

In terms of methodology, these features are important and should be taken into account when differentiating the functions of the internal audit from those of the internal control.

In their essence, the functions of internal audit can be defined as: activities specific in their content and purpose, which are directly related to the competence of internal auditors and allow the mission and strategy of development of the internal audit to be adapted and coordinated with the priorities of risk management, financial control and business development strategies.

It is methodologically more sustained to be assumed that practically the internal audit performs the following functions:

– Information – evaluation – internal auditors not only use, but also create a qualitatively new information about the state of the internal control and risk management systems, audits and business processes and risks associated with them. Internal auditors report collected, processed, analyzed and evaluated information in an appropriate form to parties concerned. For this purpose, they perform actions and procedures to identify and evaluate risks, associated with internal control systems, ongoing business processes and changes in internal and external environment; internal control and risk management system assessment; assessment of controls for the protection of assets and effective use of resources; evaluation of IT and information flows; evaluation of the state of audits, business processes and risks associated with them; assessment of controls for protection of assets and their effective use; analysis and processing of collected data in a form appropriate for the purposes of governance, risk management and control; effective efficient and reliable information feedback through established communication channels and reporting to management, Board of Directors and Audit Committee.

– Control function – it includes activities and procedures for monitoring of internal control systems and risks associated with them; compliance with applicable law and the internal rules and regulations and codes of conduct; monitoring the implementation of recommendations, measures undertaken to update the risk control and management systems; interaction with the external auditors and regulators; fraud prevention and detection of fraud and corrupt practices.

– Methodological function – includes activities related to staff training to implement specific control activities and risk assessment; assistance in the development of procedures and methods for risk assessment; assistance for updating the internal regulations and standards; establishing a suitable internal environment for the operation of an internal audit department; qualification courses, programs and training for continuing professional development.

– Advisory function – includes advising operational management on issues to improve control systems and risk management system and risk assessment; senior management on specific issues within the competence of internal auditors related to strategy assessment and corporate management; Audit Committee on specific projects and programs.

Successful development of internal audit in Bulgarian enterprises is determined by its functions.

For this purpose, an empirical study in the form of a survey has been made to determine the state of the activities, performed by the internal audit.

The survey involved 53 enterprises. A sample of seven enterprises in the category of public interest companies (large companies) has been made of those that have given a positive answer. The major criterion was reliability of the source of information. The activities performed by the internal audit in three banks have been compared. In this way, the actually functioning internal audit in Bulgarian enterprises and banks has been analyzed and compared, which is important for our practice and theory.

To distinguish the functions of internal audit, the survey included questions to assess the type of activities it performs. Responses were evaluated in three grades, insignificantly advanced activities, moderately advanced activities, priority advanced activities. The comparison is between enterprises (large companies) and banks. The results are summarized by the author in bar charts (Fig. 1; Fig. 2).

The analysis of the responses of the questions concerning the activities performed by the internal audit has led to the following conclusions:

1. The functions developed in the surveyed enterprises and banks are as follows: information-evaluation function; control function; advisory function and methodological function.
2. Information-evaluation function is the best developed one. Priority advanced activities are: assessment and monitoring of internal control and risk management systems; assessment of controls for the protection of assets; assessment of effectiveness of the use of resources and business processes; evaluation of management decisions, implementation of recommendations, strategies and effectiveness of corporate governance.
3. Activities which are not sufficiently advanced, especially in enterprises are: assessment of IT and security of information systems and evaluation of internal regulations.
4. The analysis of internal audit methodological and control functions demonstrated that there are activities related to these functions, which are developed: participation in training, methodological assistance, coordination and interaction with external auditors and regulators and fraud investigation.
5. In the surveyed enterprises and banks positive assessment can be given to the state of advisory function.
6. Comparative analysis shows that internal audit functions in the surveyed banks are one level more advanced that in the surveyed enterprises.

In practice, the importance of internal audit is defined by the activities it performs related to risk assessment in financial sector and by the confidence the management has in it.

To this end, the survey included questions to assess the importance of internal audit according to types of activities in five degrees, where 1 and 2 is minor, 3 moderate, 4 and 5 significant. Results are summarized by the author in bar charts (Fig. 3; Fig. 4).

The analysis of the responses of the importance of the internal audit in risk assessment showed the following (Fig. 3):

In banks, when assessing the risk, internal auditors focus on financial activity, frauds, IT, operations, human resources management, and in enterprises – internal auditors focus on IT, fraud, operations and financial activity.

The analysis of the responses for the confidence put in internal auditors by the management showed the following (Fig. 4):

1. The degree of confidence in internal auditors varies in enterprises and banks. In banks confidence in internal auditors is definitely bigger.
2. The management prefers the internal audit to be carried out by the Internal Audit Department, but still in the financial sector, the internal auditor lies in the shadow of external auditors and management.

The conclusion is as follows: It is recommended that in order to be credible and to be useful in the studied areas, internal auditors should:

– Offer the parties concerned services which external auditors cannot provide, do not want to provide or provide at a very high price;

– Use all available opportunities for communication and interaction with the management to coordinate their actions, plans and programs in the field of risk management, financial control, quality of accounting information and fraud;

– Develop meaningful activities such as information-evaluation and also control, methodological and advisory function.

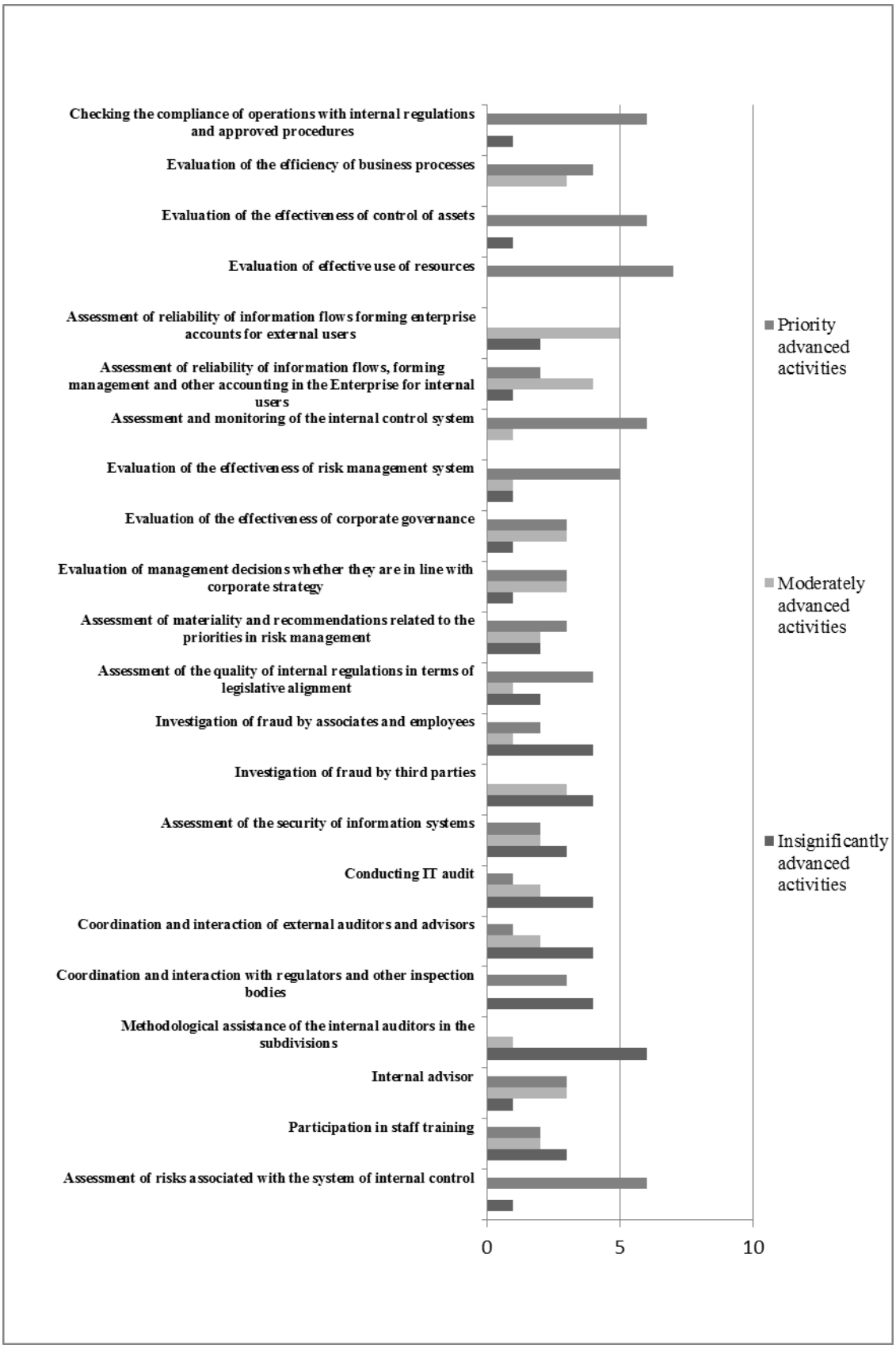

Fig. 1. Summarized bar chart of internal audit activities performed in enterprises

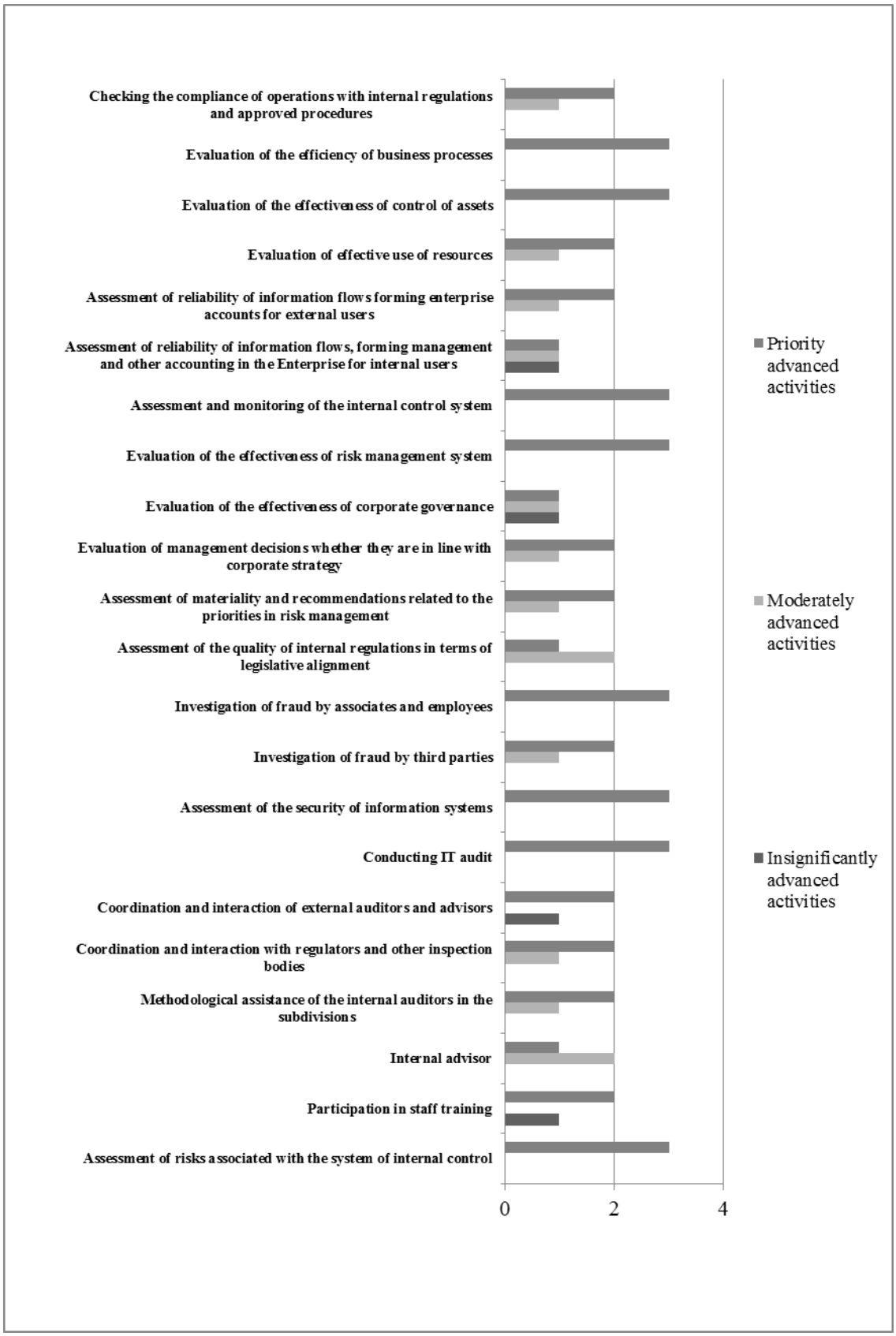

Fig. 2. Summarized bar chart of internal audit activities performed in banks

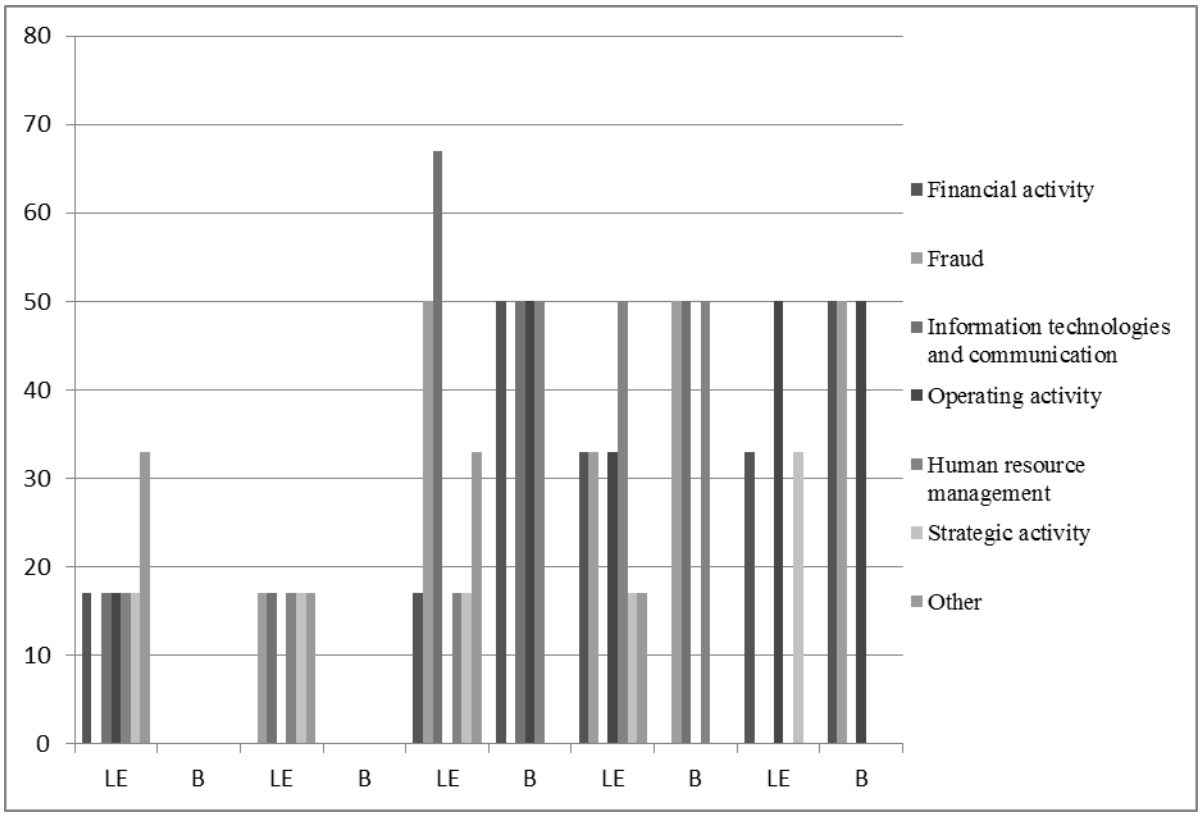

Fig. 3. Role of internal audit in risk assessment

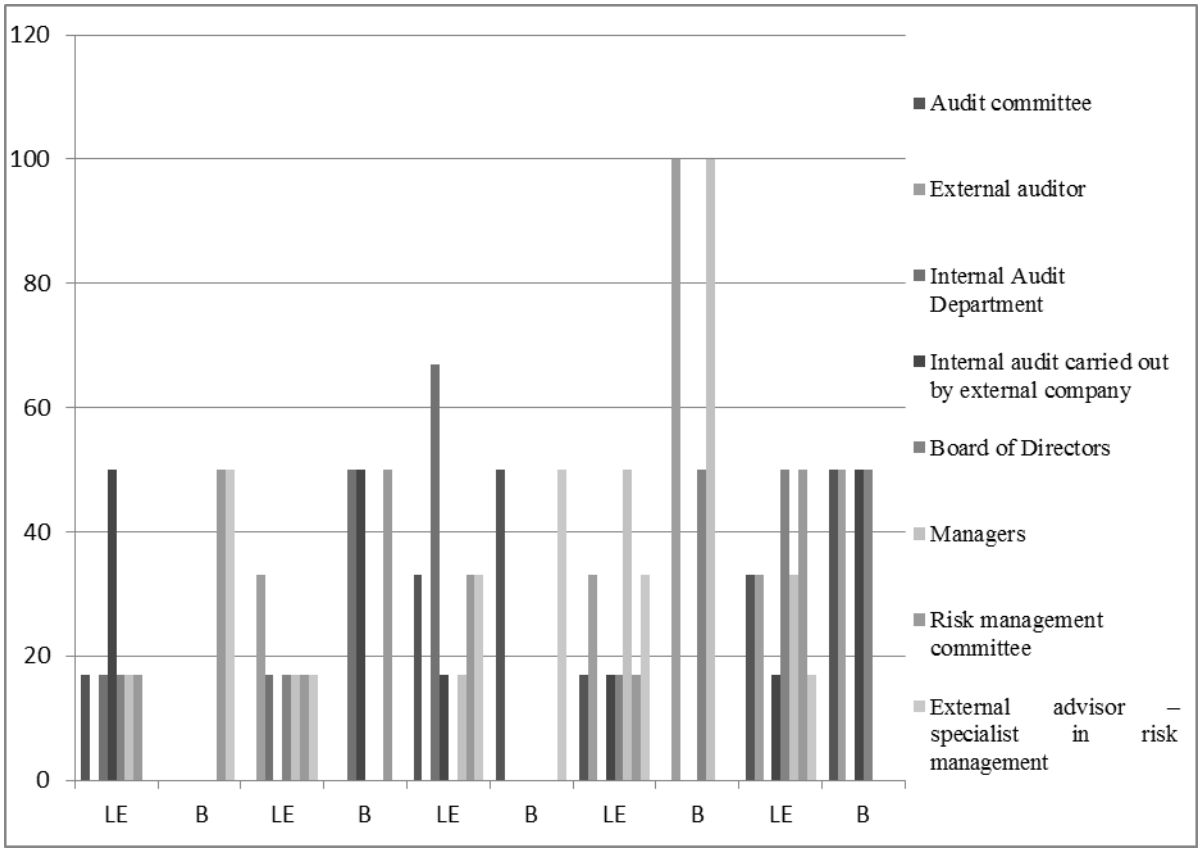

Fig. 4. Degree of importance of structures, which the management has confidence in when assessing the risk

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Summary

The results of the empirical study of internal audit function in Bulgarian enterprises allow the following conclusions and recommendations to be made: 1) In the surveyed enterprises and banks, information – evaluation function of internal audit is best developed; 2) Not sufficiently developed are activities to ensure quality and richness in content of internal audit control and methodological functions; 3) Advisory function is moderately advanced and depends on internal auditors and management's professional skills; 4) To differentiate and define the role and place of internal audit within the system of financial control it needs to be improved in several direction:

- Organizational and legal status – to this end it is advisable the mission and strategy of development of internal audit to be defined ensuring its independence with appropriate channels of reporting and interaction with the Audit Committee;
- Scope and content of audit engagements – it is recommended they to be focused on main risks in the systems of financial control, risk management and business development strategies;
- Improving internal audit methodology and technology – this can be achieved by adapting and coordinating the audit plan with changes in the organization, financial risks, methods of external independent audit, use of software and self-assessment of risk and control in the audit activities of internal auditors.

Keywords: internal audit; function of internal audit; financial control.

JEL classification: F30

UD classification: 658:68.231

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PREREQUISITES FOR AGRO-INDUSTRIAL INTEGRATION DEVELOPMENT

Tetyana M. Gamma*

1. Introduction

Despite the attention of the authorities to the problems of agricultural sector, it is still premature to talk about overcoming the crisis in agriculture. Adverse weather conditions, the presence of intermediary chains supporting the mechanism of funds withdrawals from agriculture do not allow a lot of farms providing extended reproduction in the long run.

The development of advanced technologies encouraging productivity could improve the situation. However, this requires significant investment, which the agricultural enterprises lack, and the abilities to attract third party investors in agricultural production are limited owing to the high risk, long operating cycle and low speculative capacity. In addition, the amount of the state support is much lower than in the developed countries.

Therefore, under current conditions, one of the main directions of agriculture development, along with the strengthening of state support, should be considered the stimulation of integration process of agro-industrial manufacturers with agricultural processors.

However, despite the proven benefits of such integration, a lot of participants feel reserved to this form. The majority of the farmers are not involved in the integration process, preferring market mechanisms of interaction. For example, in Odessa region, only about 100 companies, among almost 6 thousand agricultural enterprises and farms, belonging to the 40 integrated entities are involved into the integration processes. This is a consequence of objective reasons to be explained.

2. The main material research

The publications note the following reasons for the dip in popularity of agro-industrial integration:

1) the reluctance of financially sound enterprises to integrate with "weak" companies for fear to reduce their cost-effectiveness;

2) low investment potential, i.e. level of return on investment;

3) fear to lose tax benefits in the case of integration of agricultural producers with processing companies [1].

Obviously, the list of reasons given above is not complete, and we will try to substantiate and expand it in this paper.

From the methodology position, we believe that considering the benefits of integration and restraining factors, we should combine economic approach comparing the costs and the benefits, and the institutional approach investigating the "rules of the game" and the conditions how to coordinate the interests of business processes participants. Their combination will allow investigating the problem and suggesting the ways to solve it from the point of view of the system approach. In this regard, one can identify the following research areas:

1) analysis of the institutional environment and transaction costs;

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2) search for efficient forms and interaction mechanisms between the participants;

3) state support measures.

The problems related to the institutional environment are directly related to the issues of confidence. In the business environment, where the confidence level is high, less guarantees are required and management structure to prevent opportunism (manifestation of perfidy for selfish purposes) is less complex [2]. Low level of confidence narrows the field of joint activities.

In the Ukrainian business environment, level of confidence is extremely low. And the problem does not come down to the features of national mentality. Opportunistic behavior is a consequence of natural human desire to maximize the function of his own utility [3]. The institutions of different nature are called to resist it starting from the judicial system, the mechanisms of company-specific management and ending with the national-cultural traditions. Their underdevelopment is the cause of aggressive opportunism. In particular, the Ukrainian judicial system, due to various factors, is often not able to provide a remedy: such phenomena as the delayed terms of proceedings, judges soliciting, non-enforcement of court sentences. And this leads to an increase in transaction costs.

The desire to preserve the goodwill in the conditions when the state creates knowingly loss-making management mechanisms (especially in agriculture) does not meet the support of the businessmen. The farmers are in the situation where it is difficult to predict financial performance in the short term, not to mention in the long run. Their main focus is on maximizing current profits at the cost of violation of contract terms.

Therefore, renewal and increase of mutual confidence level must be considered as the institutional prerequisite for the development of national entrepreneurial activity. Otherwise, the predictable behavior of participants can be achieved only in the conditions of integration, when it becomes possible to use the administrative arrangements within rigid structures. And the practice has demonstrated the correctness of such path.

This raises the question of the effectiveness of various organizational forms, bringing together the participants' activities. Various forms of agricultural enterprises interaction organization are well-known. Some of them operate in a closed cycle "production – processing – sales", the others combine only production and processing, and the others realize together the same operations. The following can be generalized:

1) joining several businesses in order to create a closed cycle in the hands of single owner;

2) interaction of several independent legal entities on a contractual basis;

3) creation of simple partnership based on joint activity agreement;

4) formation of various associations, such as farmers associations.

When choosing a particular organizational form, a key role is played by the factors associated with the property relations, as they often determine the efficiency of the central body in integrated associations and its ability to reach compromises. In case if the property relations between the participants of integrated formation do not exist, then the problems of integration organization is particularly acute due to the significant reduction in central leverage on the members of the integrated structure.

At the same time, one should remember that the majority of enterprise managers prefer if not large-scale, but independent activities. The inclusion of an enterprise to the integrated association limits access to financial flows and increases the level of personal control and responsibility. Therefore, the issues of ownership themselves cannot be an obstacle to integration.

Currently, in Ukrainian food industry, there are three types of integration mechanisms. The first type implements control possibilities associated with the possession of property titles of the integrated companies. The second type involves coordination leverage of joint activities based on access to the joint resources. Finally, the third type of mechanism is based on a voluntary centralization of a group member and the transfer of certain powers.

It should be noted that in the present circumstances, vertically integrated food industry structures are the most competitive, the purpose of which is, first of all, to ensure their own reliable source of raw materials, as well as stable income, the formation of permanent markets for product sales and the expansion of activity spheres. Due to their own system of elevators, agricultural enterprises and trading houses reach closed production cycle, costs savings and efficient management of financial flows.

Another point that determines the appeal of integration is seasonality and asset specificity. Everyone knows that agricultural production is seasonal and main crops can be harvested only once a year. Accordingly, in a specific regional market, there are objective limits of grain volume to be processed. During the years of poor harvest, the processing companies face the challenge of unutilized capacity.

To solve the issue, the delivery of grain from other regions can be considered but it is related to high transport costs. The processing companies can partly solve the problem of capacity utilization and guaranteed supply by vertical integration "back" to the raw materials producers.

Seasonal factor is also essential for the agricultural producers. Since agronomic activities are carried out within a short period, field works must be timely organized and financed. In terms of vertical integration with the processors, the agricultural producers are able to get quick and secure credit facilities to complete the operational cycle, and for the implementation of the investment programs.

The factors associated with the specificity of assets were determined by O. Williamson. He attributed to them:

1) the specificity of the location – it occurs due to the proximity of the supplier and the consumer. The reorientation to other partners is associated with additional costs, so the parties will endeavor to maintain the relationships;

2) the specificity of physical assets – is a consequence of their special features (e.g. durum wheat). The desire to have guaranteed supply may be a reason for integration;

3) the specificity of human resources – any conditions leading to the improvement of company specific relationships and productivity upgrade. The inability to ensure them at the appropriate level (or loss of them) is threatened by additional costs, which is a factor for fuller control through joint ownership;

4) target assets – the investment of the partners in the development of the production basis of each other. This leads to a symmetric distribution of the risks and increases confidence level [3].

The fertility of the land and climatic conditions should be added to the listed assets that are not essential to the industry, but are crucial for agriculture:

a) the land with various fertility and climatic conditions gives rise to different attitudes towards integration. For example, the climatic conditions in Vinnitsa region contribute to grain yield of 30–40 q/ha. Therefore, a farmer in Vinnitsa region feels more financially independent than a farmer in Lviv region, where the average grain yield is 10-15 q/ha, and, accordingly, has a different point of view on integration appeal. And any technological improvements are not able to eliminate such difference;

6) the fertility of the land plot has a similar effect on the assessment of the integration benefits on the part of the agricultural producers, but within a single region and determines the amount of the so-called differential rent.

All of these factors, in one way or another, affect technological and transaction costs, and determine the degree of integration appeal for potential and actual participants.

Furthermore, when forming integrated associations, the ways and the principles of partner economic relationship implementations should be considered. One of the most common mechanisms ensuring to some extent the partners' decency in respect to each other is a transfer pricing.

"Transfer price (internal price) is a price of a product or services that one unit (section, department, division etc.) delivers to another unit of the same entity" [4]. In classical interpretation, internal prices by their nature are far from the market, as the products and services are not sold and not purchased. Transfer prices contribute to objective evaluation of the participants activity and their contribution to the joint result of integration.

The world practice has developed several methods for establishing the level of transfer prices: based on the market price, costs based and contract based.

Transfer prices are generally determined by the following objectives:

1. Regulation of the profit rate. Transfer prices allow to set the required rate of return for various units. The solution to this problem is closely related to the financial structure design, which resulted in the allocation of profit centers and cost centers. For cost centers, a price level is established that allows only offsetting the costs, thereby redirecting the flow of operational profit to the headquarters. This pattern allows concentrating financial resources in one place and facilitates the subsequent investment process, depending on the priorities of the corporation development.

2. Increase both the efficiency of the integrated association as a whole (due to the synergistic effect) and its individual units (first of all, through the reduction in transaction costs at various stages of the business process).

3. Create economic incentives for the units. One of the objectives of transfer pricing is to encourage internal company competition by the organization of the internal market and fair distribution mechanism of the system result.

4. Create clear guidelines for the motivation of department managers. This task is related to the organization of personal motivation of department managers of the corporation. Transfer prices allow establishing clear reference points for fair evaluation of their activities.

5. Minimization of customs and tax payments. Corporate structures often operate simultaneously in several public and tax jurisdictions. Therefore, they have to record all transactions for which customs and tax payments are accrued. It is natural to assume that the corporation will seek to reduce the overall amount of payments. Transfer prices, in this case, are a convenient tool to reduce their accrual basis. Well-designed mechanism of interaction between the integration participants with the use of transfer pricing can generate additional revenue by itself.

However, all these recommendations are not sufficient if the appropriate level of state support for the integration process is not provided.

3. Conclusion

Firstly, it is necessary to adjust the legislation on holding entities, in accordance with which the relationship between the units will not be seen as the results of independent companies activity

subject to taxation, but as the operations of a single economic mechanism with respective exemption from taxation (especially from VAT).

Secondly, the issue of maintenance of preferential taxation of agricultural production within the frameworks of integrated association should be solved.

Thirdly, one should not forget about direct state support, which is significantly lower than in the developed countries. For example, the EEC countries annually subsidize in agriculture about 3 billion euros per year.

It is necessary to continue the development of national projects and regional target programs related to the support of agricultural complex.

In our view, the proposed integrated approach allows you to make a sound estimate of the integration benefits. Finding a balance between the obvious economic interests and implicit constraints will actively involve farmers in the integration processes and, therefore, assist bringing agricultural sector through the crisis.

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Summary

In this article, the author attempts to identify and analyze the main prerequisites of agro-industrial integration in Ukraine at the institutional level: the institutional environment and transaction costs; forms and mechanisms of interaction between the participants, the measures of state support. The implicit constraints of integration processes in the investigated area were examined.

A combined approach to a reasonable assessment of the benefits of integration was proposed. Finding a balance between the obvious economic interests and implicit constraints will actively involve farmers in the integration processes and thus contribute to the removal of the domestic agricultural sector out of the crisis.

Keywords: integration, the agro-industrial complex, the institutional environment, taxation.

JEL classification: Q13

UD classification: 338.432:334.012.82(477)

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TOURISM COMPETITIVENESS EVALUATION OF THE UKRAINE'S REGIONS

Victor Gerasimenko, Vladimir Pavlotskiy*

1. Introduction

Analyzing recent year's situation of domestic travel market, it's hard not to notice the close relationship between its trends and the general economic condition of the country. The recent spread of the global financial and economic crisis has reduced global demand for travel services. And, if the statistical surveys of the UN World Tourism Organization [1] and the World Travel and Tourism Council for 2013 indicate overcoming the negative tendency on a global scale, the Ukrainian tourism market is far from recovery. Unfortunately, tourism in Ukraine is not widespread, and not one of social priorities, as reflected in the relatively low and very elastic, in terms of income, demand for travel services. In recent months, the situation is exacerbated by political instability and the fall in the exchange rate of the national currency. At the same time, the number of registered tourism enterprises tends to sustainable growth nationally, as well as in the Odessa region. The combination of these circumstances leads to a significantly increased competition and makes tourism enterprises consider both internal and external factors of their competitiveness to respond adequately to changes.

Tourism business, as recent experience shows, is sensitive to changes in the economic situation in the country and in the world. The consequence of the global financial and economic crisis has caused a significant reduction in demand for travel services. And if the latest statistical reviews show improvement on a global scale, the Ukrainian tourism market has not recovered. At the same time, the number of domestic tourism enterprises is growing every year, which greatly exacerbates the competition. These circumstances make tourism enterprises to give priority to the level of their competitiveness and trends to change it.

2. Theoretical framework

Recently, methodology of comparative evaluation of tourist regions competitiveness has systematically been investigated by the authors from different countries. However, the conceptual approaches and even specific techniques that have been applied in this case are significantly different. The main differences are in determining the most significant external (exogenous) factors of the competitive environment and techniques of normalization and processing of statistical information. It should also be said that the existing diversity of viewpoints is a consequence of ambiguities in the interpretation of complex, multi-level category "competitiveness".

Tourism destination's potential begins studied systematically in the scientific literature since the eighties of the last century. Works of Haahti and Yavas [2], Smith [3], Lovingwood and Mitchell [4] developed the concept of spatial planning, which was based on the analysis of the impact of tourism infrastructure on major economic indicators of regions. Under this approach, elements of competitive analysis were used. Despite the fact that the volume of research information was limited, and the opinions of tourists were not always objective, considered work became the basis for subsequent studies in nineties.

Another conceptual direction in evaluating the competitiveness of tourist regions is their life cycle

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analysis. Research in this field has quite a long history and is based on the marketing theory of the product life cycle. The idea to apply this theory to tourist regions belongs to R. Butler, who distinguished four phases in the tourism area life cycle (TALC), in accordance with the number of visitors and the level of development of tourist infrastructure [4, pp.8–9; 5, p.471].

Soon, G. Hovinen applied Butler's TALC model to study the Lancaster County in Pennsylvania. Hovinen's study suggested, that the actual state of a tourist destination can be described by features that belong to the neighboring TALC phase. On this basis, Hovinen combines Butler's consolidation and stagnation stages in to "maturity" stage [6, p.284]. Other scientists used interpretations of TALC model for the assessment of tourist regions conditions [7, p.49–50; 8, p.112].

The approach, which is based on the systematic monitoring of the main parameters of tourist regions, is interesting for regional or municipal authorities. It gives the opportunity to objectively compare the state of the same destination in the dynamics. However, comparing the competitiveness of different tourist regions, based only on determining phases of their life cycle, leads to very approximate results.

In the nineties of the last century the so-called cluster approach for evaluating the competitiveness of tourist regions was developed. The concept of clusters was used by M. Porter as an important element of the doctrine of the competitive advantages of industrial enterprises (Diamond of competitive advantage), that he developed. In accordance with this theory, companies consolidate in to the industry cluster on the basis of competitive advantage of development and placement [9, p.64].

Porter's approach has been adapted to the tourism sector and has acquired spatial-geographical content in the works of G. I. Crouch and J. R. B Ritchie. Since 1993, they have developed a conceptual model of evaluating the tourism regions competitiveness. In their early studies, they investigated the winter resorts of the Canadian province of Alberta. It determined the name of the proposed evaluation model of destinations competitiveness – "Calgary model". The authors proposed a hierarchy of components in accordance with the degree of their influence on the competitiveness of tourism regions. Each of the components included homogeneous group of factors, contain destination attractors and deterrents. The model's concept reflects the researchers vision of the competitiveness of tourism regions as an indicator of citizen's quality of life and sustainable destination development due to tourism activities in them [10, p.83]

Over the subsequent years, the authors upgraded their model by studying different opinions, based on the series of interviews with CEOs of the Convention and Visitor Bureaus of leading North American urban tourism regions [11; 12]. The model included five major determinants of competitiveness of regions with a complex system of relationships between them. In total, the model identifies 36 destination competitiveness attributes and more than 250 individual factors of destination competitiveness. [13, p.425–427; 14, p.65–66].

The improvement of Ritchie and Crouch approach was the Integrated model of destination competitiveness. This model was used to analyze the tourism regions of South Korea [15], Australia [16], and later on of Slovenia [17] and some other Balkan states. The Integrated model of destination competitiveness was similar to Ritchie and Crouch model, but contained a number of significant differences. In this model a substantial role is played by the tourist demand. The level of demand is considered as one of eight model's major determinants [15, p.389–390].

Unlike of Ritchie and Crouch models, the Integrated model of destination competitiveness is linear – all 83 individual indicators affect the competitiveness of regions in one direction. The authors proposed a set of specific indicators, used to measure the competitiveness of tourism regions, which simplifies the application of the model [15, p.393–396].

However, both models contain a number of shortcomings. A large number of individual indicators make the process of data collection extremely time consuming, and present analysis subjective. Scientists have developed a model that does not offer criteria for prioritization of competitiveness indicators or a clear algorithm to generalize the results [18; 19, p.433]. The authors emphasize that

the importance of the attributes of competitiveness cannot be the same for different regions [20, p.31]. "There is no single or unique set of competitiveness indicators that are applied to all the regions at all times" [15, p.375]. This approach greatly complicates comparative competitive analysis of the regions.

An attempt to overcome the limitations of the techniques discussed, related to the lack of systematization and hierarchization of the competitiveness factors, is undertaken in the "Pyramid model" of region competitiveness [21, p.1049; 22, p.324]. The basis of this approach is in the separation of concepts "competitive potential" of the region and "competitive position" of the region, placed at different hierarchical levels of the model.

Z. Papp and A. Raffay adapted this model for the purposes of assessing the competitiveness of tourist regions. They used factors, that synthesized attributes of the competitiveness from Ritchie and Crouch model, the Integrated model of destination competitiveness and Lengyel model of regional competitiveness [23, p.24]. The proposed technique also allows to take into account features of competitiveness of tourism regions in countries with transformation economy. However, this model, as well as previously discussed models, does not provide a clear algorithm to quantify the regions competitiveness, which limits its applicability.

Other than discussed, it is also necessary to note the composite tourism competitiveness index models. They were developed by a number of international organizations for the comparative analysis of the travel and tourism sector in different countries. The most known among them became Travel and Tourism Competitive Index (TTCI), compiled by the experts from World Economic Forum in collaboration with the International Union for Conservation of Nature, International Air Transport Association, World Tourism Organization (UNWTO), World Travel and Tourism Council and well-known consulting companies Booz & Company and Deloitte. TTCI is calculated on the basis of 3 sub-indexes: policy rules and regulation, business environment and infrastructure and human, cultural and natural resources in the field of tourism. Each of sub-indexes includes 4–5 corresponding group indicators that, together, summarize the effect of 73 individual factors of competitiveness. Experts of World Economic Forum provide a scoring evaluation of each of these factors (both quantitative and qualitative) for all of the countries. Based on generalized and processed by special technique expert's assessments, tourism competitiveness rating for each country is determined.

Ratings of countries, determined by these method, are widely used for public policies analysis in the tourism field. However, to apply this approach to determine the competitiveness of individual tourist regions is almost impossible.

In order to minimize the negative side of the techniques discussed, in this paper we offer an approach to use a variation of parametric method for assessing the competitiveness of the tourist regions.

3. Methodology

The main idea of the method is that the tourism market of the regions is evaluated using the appropriate quantitative indicators. Many of them are present in administrative and statistical reporting forms. One of the possible options to calculate the integral indicator of region's tourism competitiveness can be represented as follows:

$$C_з = m_1 \times I_r + m_2 \times I_{nt} + m_3 \times I_{rcc} + m_4 \times I_{ac} + m_5 \times I_{anr} + m_6 \times I_{cha}, \quad (1)$$

where $C_з$ = the integral index of region's tourism competitiveness,

I_r = parametric index of revenue from tourist activities,

I_{nt} = parametric index of the number of tourists and excursionists which is served for tourism enterprises,

I_{rcc} = parametric index of recreational centers capacity,

I_{ac} = parametric index of accommodation capacity,

I_{anr} = parametric index of the area of natural resources,

I_{cha} = parametric index of the number of cultural and historical attractions,

m_1; m_2; m_3; m_4; m_5; m_6 = weight indexes of each of the parameters.

It is recommended to calculate parametric indexes, by comparing the value of certain parameter for each of the regions with the average value for the studied regions or with the region's best value.

As mentioned earlier, a significant drawback of using many integral indicators is subjectivity in determining the weight of parameters (m_i). Almost all existing methods engage experts to establish weight indexes. However, their number and the required level of qualification are controversial, and the problem of experts selection and summarizing their views are seriously obstructing the construction of an integrated model.

The use of elements of Fuzzy Set Theory, and in particular, the method of analysis of hierarchies, designed by the famous American mathematician T. L. Saaty, contributes to the solution of these problems. Uniqueness of this method is in setting hierarchy of the selected indicators, done by a relatively small number of experts. This method makes it possible to check the consistency of expert's evaluation by using the harmonization of these estimates. Further, indicators undergo mathematical analysis, based on the principle of hierarchical composition. According to the method of analysis of hierarchies, the problem elements (the discussed above parametric indexes) are compared in pairs by their impact on the resulting index (level of tourism competitiveness of regions). The system of paired comparisons leads to a result which can be represented as a matrix of paired comparisons – the so-called symmetric invertible matrix or Saaty's matrix.

Element of the matrix *a* (*i*, *j*) is the intensity of property of the element of hierarchy *i* relative to the element of hierarchy *j*. Such intensity should be determined on a scale from one to nine, proposed by the method's author [24, p.32–33].

Next step is to multiply the score for each indicator and take n^{th} root, (where n – the number of analyzed parameters, in our case – the sixth root). Then the sum of all roots is calculated as well as the proportion of each root in this sum. The resulting vector composes the relative importance (weight) of specific indicator in the overall assessment.

To coordinate expert's opinions, we used Kemeny's median algorithm, developed by the eminent American mathematician J. G. Kemeny. The majority of authors believe this method is the most proper way of averaging expert's opinions represented by binary relations.

Procedure for assessing the regional tourist competitiveness, using the proposed by us method includes the following steps:

1. Selection of destinations-competitors for comparison;

2. Gathering information about the indicators that have been selected for evaluation;

3. Calculation of parametric indexes, by comparing indicators for destinations with the average for all regions of Ukraine;

4. Determination of integral indexes of tourism competitiveness of the analyzed destinations.

4. Empirical results

After defining weights, we can rewrite formula (1) as follows:

$$C_з = 0.28I_r + 0.16I_{nt} + 0.09I_{rcc} + 0.11I_{ac} + 0.19I_{anr} + 0.17I_{cha} \quad (2)$$

Values of equation's elements represent the conformed view of the experts, who are professors of the Department of Economics and Management of Tourism of Odessa National Economic University. When selecting experts, preference is given to those, who had scientific publications on the tourism competitiveness problems. According to this criteria 8 experts were selected. Each of

them was asked to fill in the pairwise comparisons matrix template.

Using formula (2), lets analyze the tourism competitiveness of some regions of Ukraine and focus on the most successful, in terms of tourism activities, regions. Let's display values of all parametric indexes in Fig. 1.

Note that, the average values indexes, that are average for all 27 administrative-territorial units of Ukraine, and not only for the above 5 destinations, were used.

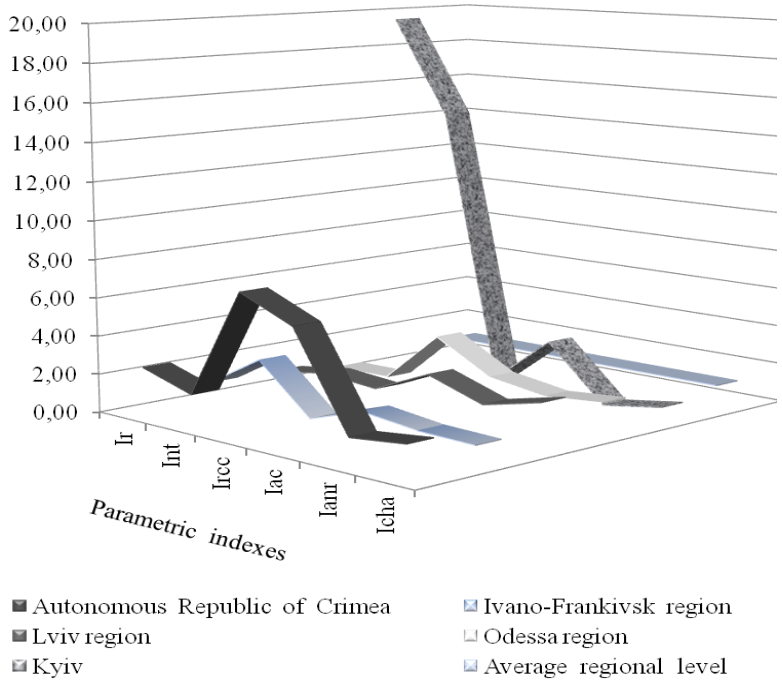

Fig. 1. Parametric indexes of the tourism regions competitiveness

Sources: Calculated according to the yearly report by Ukraine's National Statistics Service, "Tourism activities in Ukraine in 2013" [25]

Calculation of integral competitiveness indicators for selected destinations of Ukraine is shown in Tab. 1.

Tab. 1. Calculation of integral competitiveness indicators for selected regions of Ukraine

Estimation parameters of the 2013 tourism regions competitiveness and due parametric indexes	Regions					
	Kyiv	ARK	Ivano-Frankivsk region	Odessa region	Lviv region	Average level for all 27 regions
Revenue from tourist activities, million UAH	4698,4	584,1	243,9	126,8	228,7	240,6
Ir	19,53	2,43	1,01	0,53	0,95	1,00
Number of tourists and excursionists, served for tourism enterprises, thousands	2214,0	241,9	415,1	83,0	210,7	152,3
Int	14,54	1,59	2,73	0,54	1,38	1,00
Recreational centers capacity, thousand beds	6,6	120,2	3,8	53,5	18,5	16,4
Ircc	0,40	7,31	0,23	3,26	1,13	1,00
Accommodation capacity, thousand beds	19,2	40,5	8,1	10,9	16,2	6,6

Continued the Tab. 1

Iac	2,89	6,10	1,22	1,64	2,44	1,00
Area of preserved territories, thousands of square kilometers	0,5	12,0	8,2	11,3	13,8	9,4
Ianr	0,05	1,27	0,87	1,20	1,46	1,00
Number of cultural and historical attractions	941	2911	1419	2663	3934	1820
Icha	0,52	1,60	0,78	1,46	2,16	1,00
Integral index of tourism region competitiveness (Ci)	8,25	2,78	1,17	1,18	1,50	1,00

As evidenced by the table's data, the most competitive of the reviewed destinations is the city of Kyiv (8,25). This is due primarily to the highest income of the tourism enterprises resulting from their activities. The next place is taken by the Autonomous Republic of Crimea (2,78), followed by Lviv region (1,5), Ivano-Frankivsk region (1,18) and Odessa region (1,17).

5. Conclusions

Methodology to evaluate the competitiveness of the tourism destinations, in our opinion, is fairly objective and has a number of advantages over the methods considered earlier:

– it takes into account all major sources of tourism competitiveness of the region (natural and anthropogenic tourism resources, key performance indicators of tourism enterprises and tourism sector infrastructure);
– it formed a more objective assessment of the competitive position of destinations, by limiting the subjective opinion of experts who only determine the significance of performance indicators;
– it uses real quantitative indicators, present in administrative and statistical reporting.

In general, complex assessment of tourism competitiveness of destination should be based on a model that would represent a region as an integrated system of tourism resources, subjects of tourism activities and services for recreants and tourists.

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Summary

The theoretical approaches to the assessment of the competitiveness of tourism regions are analyzed. The method of calculating the integral indicator of the competitiveness of tourist destinations is offered. The tourism competitiveness level of some regions of Ukraine is calculated.

Keywords: tourism region's competitiveness, parametric method for assessing the competitiveness, parametric indexes, integral index.

JEL classification: R11

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TIME MANAGEMENT TOOLS AND TECHNIQUES FOR PROJECT MANAGEMENT

Hazar Hamad Hussain*

1. Introduction

The definition of Project as a "temporary endeavor..." refers that project has to be done within a limited time. Furthermore, when it comes to the main constrains of the project we find time along with cost and scope which required careful attention throughout the whole project life cycle, during planning phase, executing and monitoring and control before closing the project.

Time management process happens mainly in the planning phase, although the project duration and the milestones are already decided in the initiation phase, but it is still the project manager's responsibility to plan the project activities and to meet the set project duration within the planned budget.

2. Time Management

The Processes involved in project time management include (PMP, 2012):

- Define Activities.
- Sequence Activities.
- Estimate Activity Resources.
- Estimate Activity Durations.
- Develop Schedule.

We are going to present the main tools and techniques that are used in implementing these processes, as follows:

3. Define Activities

This process includes defining the activities need to be implemented to achieve the project deliverables.

The main Tools and Techniques used in Defining Activities process are (PMP, 2012):

- Decomposition.
- Rolling wave planning.
- Templates.
- Expert judgment.

4. Decomposition

Decomposition in project management means to divide the project into smaller pieces that can be easily managed and controlled. It is a technique used in Work Breakdown structure WBS creation and to define the required activities.

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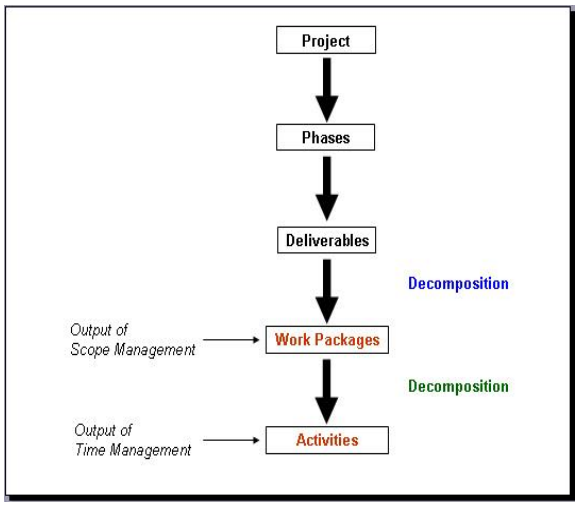


Fig. 1. Dividing project into smaller activities

Source: B. Srinivasan, 2008

Decomposition of project scope generally involves the following activities (B. Srinivasan, 2008):

- Gather information on major project deliverables and analyze related tasks.
- Start development of work breakdown structure (WBS) at the highest level.
- Decompose the upper WBS levels into lower level detailed components.
- Identify each work package & WBS components with unique code, and Verify if the degree of decomposition of the work is necessary and sufficient.
- Any of Levels of WBS need not be the same for all deliverables.

5. Work breakdown structure

The work breakdown structure (WBS) is a checklist of every activity that must be performed to create the endproduct. This checklist becomes the foundation for the schedule, resource allocation, and budget plans (Joan Knudson &Bitz, 1991).

Create a WBS using one or more of the following methods: questionnaire, one-to-one personal interviews, or group sessions. We recommend the group sessions as the vehicle for developing the most comprehensive work breakdown structure (ibid).

Fig. 2 shows the basic framework for a WBS. Begin its construction by isolating the major work assignments for your project.

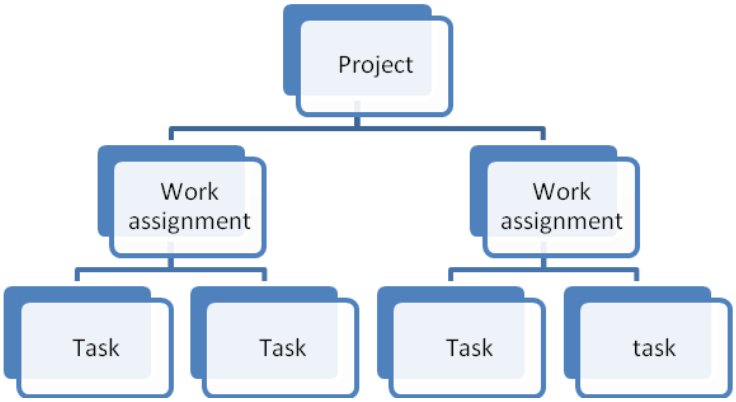


Fig. 2. The basic framework for a WBS (Ibid)

Rolling Wave Planning is a technique that enables you to plan a project as it unfolds. This technique, then, requires you to plan iteratively. Essentially, when you use Rolling Wave Planning, plan until you have visibility, implement, and then re-plan. It is usually be used when you have clarity for the activities of the first months of the project. However, this method does not exempt you from organizing a milestones list and assumptions for the project as a whole (R. Sharma 1, 2013).

The WBS defines the tasks logically; then the network organizes them sequentially. Every work task in the WBS must also appear in the network. The network analyzes the sequence of task execution and portrays it in a diagram to ensure that the team is in agreement about the sequence. The objective of the network is to portray visually the relationships of work activities to each other. A network demonstrates these relationships and communicates them more clearly to project team members and to managers than any other technique (Knudson & Bitz, 1991).

Tools and Techniques used for the Sequence Activity process are (PMP, 2012):

1. Precedence diagramming method (PDM): Precedence diagramming method (PDM) is used in the Critical Path Methodology (CPM) for constructing the project schedule network diagram. The Critical Path Method (CPM) is one of several related techniques for doing project planning. CPM is for projects that are made up of a number of individual "activities". If some of the activities require other activities to be finished before they can start, then the project becomes a complex web of activities (Samuel L. Baker, 2004).
2. Dependency determination: Dependencies of the activities on each other determine the route that the implementation can track during the project execution phase, it includes four types of dependencies or logical relationships:

– Finish-to-start (FS).

– Finish-to-finish (FF).

– Start-to-start (SS).

– Start-to-finish (SF).

3. Applying leads and lags: Lead refers to a relationship whereby the successor activity begins before the predecessor activity has completed. While lag refers to a relationship whereby the successor activity cannot start right after the end of its predecessor's (R. Sharma 2, 2013).
4. Schedule network templates: it can be used to expedite preparation of networks of project activities. It includes the entire project or only a portion of it; portions of a project schedule network diagram are referred to as a sub-network or a fragment network.

Estimate Activity Resources is the process of estimating the type and quantities of material, people, equipment, or supplies required to perform each activity. The Estimate Activity Resource process is closely coordinated with the Estimate Costs process (PMP, 2012).

The tools and techniques used in estimating activity resources are

1. Expert judgment.
2. Alternatives analysis.
3. Published estimating data.
4. Bottom-up estimating.
5. Project management software.

6. Estimate Activity Durations

Process that requires the estimate of the amount of work effort required and the amount of resources to be applied for approximating the work periods needed to complete the activity (PMP, 2012).

Tools and Techniques used are (Line Management Institute of Training, 2012):

1. Expert judgment: Expert judgment, guided by historical information, can be used whenever possible. The individual project team members may also provide duration estimate information or recommended maximum activity durations from prior similar projects.
2. Analogous estimating: Analogous duration estimating means using the actual duration of a previous, similar schedule activity as the basis for estimating the duration of a future schedule activity.
3. Parametric estimating: Estimating the basis for activity durations can be quantitatively determined by multiplying the quantity of work to be performed by the productivity rate.
4. Three-Points estimating: The accuracy of the activity duration estimate can be improved by considering the amount of risk in the original estimate. An activity duration estimate can be constructed by using an average of the three estimated durations. Project Evaluation and Review Technique (PERT) is used to estimate the activity duration by applying a weighted average of optimistic (to), pessimistic (tp), and most likely (tm) estimates, when there is uncertainty with the individual activity estimates (PMP, 2012).
5. Reserve analysis: Project teams can choose to incorporate additional time referred to as contingency reserves, time reserves or buffers, into the overall project schedule as recognition of schedule risk. The contingency reserve can be a percentage of the estimated activity duration, a fixed number of work periods, or developed by quantitative schedule risk analysis (Line Management Institute of Training, 2012).

7. Develop Schedule

Analyzes activity sequences, durations, resource requirements, and schedule constraints to create the project schedule. Tools and Techniques used are (MindTools, 2013):

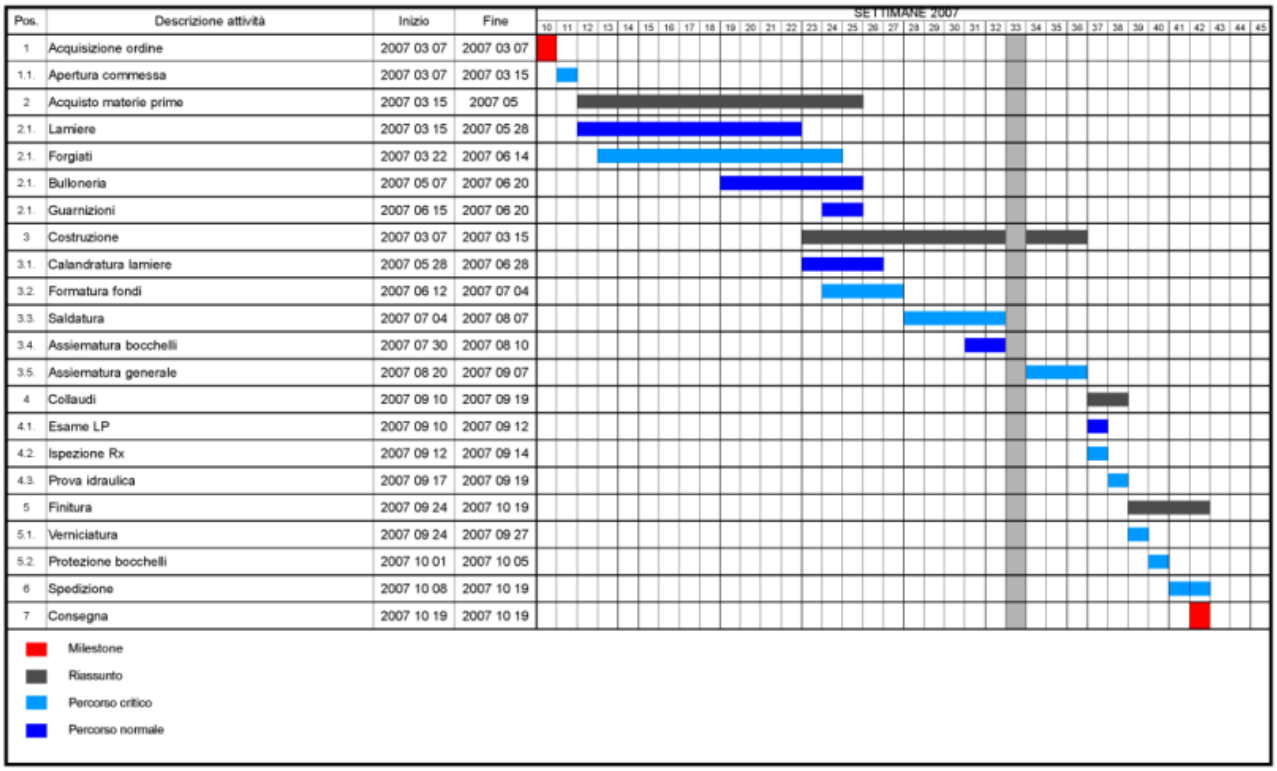
- Schedule network analysis.
- Critical path method.
- Critical chain method.
- Resource leveling.
- What-if scenario analysis.
- Applying leads and lags.
- Schedule compression.
- Scheduling tool.

No matter the size or scope of your project, the schedule is a key part of project management. The schedule tells you when each activity should be done, what has already been completed, and the sequence in which things need to be finished (Ibid).

Because of the uncertainty involved, the schedule is reviewed regularly, and it is often revised while the project is in progress. It continues to develop as the project moves forward, changes arise, risks come and go, and new risks are identified. The schedule essentially transforms the project from a vision to a time-based plan (Ibid).

Here are some tools and techniques to develop the schedule (ibid):

1. Schedule Network Analysis: This is a graphic representation of the project's activities, the time it takes to complete them, and the sequence in which they must be done. Project management software is typically used to create these analyses – Gantt charts and PERT Charts are common formats.



Pos.	Descrizione attività	Inizio	Fine
1	Acquisizione ordine	2007 03 07	2007 03 07
1.1.	Apertura commessa	2007 03 07	2007 03 15
2	Acquisto materie prime	2007 03 15	2007 05
2.1.	Lamiere	2007 03 15	2007 05 28
2.1.	Forgiati	2007 03 22	2007 06 14
2.1.	Bulloneria	2007 05 07	2007 06 20
2.1.	Guarnizioni	2007 06 15	2007 06 20
3	Costruzione	2007 03 07	2007 03 15
3.1.	Calandratura lamiere	2007 05 28	2007 06 28
3.2.	Formatura fondi	2007 06 12	2007 07 04
3.3.	Saldatura	2007 07 04	2007 08 07
3.4.	Assiematura bocchelli	2007 07 30	2007 08 10
3.5.	Assiematura generale	2007 08 20	2007 09 07
4	Collaudi	2007 09 10	2007 09 19
4.1.	Esame LP	2007 09 10	2007 09 12
4.2.	Ispezione Rx	2007 09 12	2007 09 14
4.3.	Prova idraulica	2007 09 17	2007 09 19
5	Finitura	2007 09 24	2007 10 19
5.1.	Verniciatura	2007 09 24	2007 09 27
5.2.	Protezione bocchelli	2007 10 01	2007 10 05
6	Spedizione	2007 10 08	2007 10 19
7	Consegna	2007 10 19	2007 10 19

Fig. 4. Gantt chart (Wikimedia)

2. Critical Path Analysis: This is the process of looking at all of the activities that must be completed, and calculating the "best line" – or critical path – to take so that you will complete the project in the minimum amount of time.
3. Schedule Compression: This tool helps shorten the total duration of a project by decreasing the time allocated for certain activities.

8. Project Review

Once you have outlined the basic schedule, you need to review it to make sure that the timing for each activity is aligned with the necessary resources. Here are the tools commonly used to do this (mind Tools, 2013):

1. "What if" scenario analysis: This method compares and measures the effects of different scenarios on a project.
2. Resource leveling: Here, you rearrange the sequence of activities to address the possibility of unavailable resources, and to make sure that excessive demand is not put on resources at any point in time.
3. Critical chain method: This also addresses resource availability. You plan activities using their latest possible start and finish dates. This adds extra time between activities, which you can then use to manage work disruptions.
4. Risk multipliers: Risk is inevitable, so you need to prepare for its impact. Adding extra time to high-risk activities is one strategy. Another is to add a time multiplier to certain tasks or certain resources to offset overly optimistic time estimation.
5. After the initial schedule has been reviewed, and adjustments made, it's a good idea to have other members of the team review it as well. Include people who will be doing the work – their insights and assumptions are likely to be particularly accurate and relevant.

9. Conclusion

Project manager is concerned from the beginning of the project to deals with many calendars, deadlines, durations, and delay. At the end he/she has to find a baseline used as alarm that always

gives a clear indication whether the project's objectives still can be met or cannot. Time management starts with the constraints of the product schedule, the project duration and calendar, the resource calendars, as well as the activities and their estimated duration. Historical information regarding time management plans is a valuable asset for the organization that executes its objectives by projects. Processes, policies, templates, WBS, lesson learned, estimates and contracts play an important role in developing the maturity of such organizations. For this reason, project manager has to take into consideration the organizational historical information in developing new plan of time management. Another important factor in developing time management plan is to make a buy-in with all the stakeholders, especially those who participate in implementing the project's activities, by doing so you can guarantee the schedule to be realistic as much as possible, and to gain the project's team satisfaction regarding the set schedule. Finally, some project managers consider the schedule as a table consisting of activities, duration, relationships, and resource allocation to be added all together using a software and result with a schedule can be followed in implementing the project activities until finishing the project. Doing so will end in a disaster, especially with large project, because that will not insure all the required activities to be identified during developing such schedule. Developing WBS, and network diagram is the best approach to identify all the required activities and their sequences without skipping some activities that may cause delay or failure in delivering some required deliverables in time.

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Summary

Project is mainly about achieving certain objectives within limited time, cost, and scope. For this reason these factors should be well planned and controlled to guarantee the project's outcomes. Time management starts at the very beginning of initiating the project by identifying the project duration and its milestones, before getting a detailed schedule during the planning phase. This schedule would be a subject for frequent amendments and development during the project progression. There are many tools and techniques used to develop the time schedule. This article is a summary of literature review that highlights their typical tools and techniques used in the process of the project time management, elaborating techniques like: work breakdown structure, project network, estimating, critical path analysis, and scheduling.

Keywords: project management, time management, scheduling, work breakdown structure.

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THE ROLE OF NETWORK CLUSTERS IN THE DEVELOPMENT OF INNOVATIVE ECONOMICS OF THE EUROPEAN REGIONS

Sergei I. Kovalenko*

1. Introduction

Cross-border cooperation becomes the key factor of European integration enhancement under those circumstances when in political and scientific discourse the concept "boundary" is perceived not as "boundary line", but is transformed into "relationship factor" being understood "not as a line, but a functional space", where "various communities and groups" interact.

Active formation of network forms of cross-border economic area self-organization corresponds to the impulse of establishing of the new economic reality of postmodernity that denies "total ideology", but accepts the variety and freedom of economic choice. Network clusters become a new source of competitive advantages of the European regions involving Ukraine and change not only the local factors system, but also the structure of economic area itself. In large measure the implementation of cluster form of business organization in cross-border dimension makes it possible to develop the network structure of economic area, to enhance its unity and entity [1, p.4].

Nowadays the most efficient direction of innovative policy is the formation and development of cross-border clusters which become more popular in the world society on the international, national and regional levels.

Usage of cluster approach is an effective way of competitive recovery and of the small and medium business in regional economy. In this respect the task of formation of united innovative infrastructure, providing effective use of scientific and technological potential of cross-border regions, creating the conditions for modernization of the industry and the acceleration of development of its most successful and competitive segment, becomes the most significant one.

The necessity of development and realization of scientifically grounded regional economic policy concerning border regions and territories of Ukraine is evident within the framework of the processes of international economic integrity. As the experience of the countries involved in the processes of international integrity shows, under such conditions the status and role of the border regions in the development of national economy are sufficiently changed. The latter lose their "periphery" status and their "barrier" functions, being not only the transit corridor for innovations, goods and services, but also as regional "poles" of integrity and interplay of global and national economic areas.

The relevance of our investigation on one hand is determined by the important role of cross-border cooperation to enhance the competitiveness of periphery border regions, to decrease spatial differentiation between border and internal sub-regions and on the other, buy not adequate investigation of theoretical and methodological aspects of the study of the mechanisms of cross-border cooperation. To make the cooperation more effective, to cancel the negative influence of the borders and to achieve full scale integral area, the modern regional policy of European Union motivated the search of new forms of cross-border cooperation [2, p.10].

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2. Analysis of research and publications of recent years

An important contribution to the development of economic area theory was made by the representatives of institutional economics (O. Williamson [3], R. Coase [4], W. Nordhaus, F. Hayek). In their research work they paid attention to the lack of information being the hindrance to mutually agreed conditions, to the differences between evident and tacit knowledge focused on the study of the transaction expenses influence on the advantages of different organization forms.

In their works the existence and the importance of network clusters phenomenon was recognized and the growth pole and structures with direct and indirect links were investigated. Besides, there was considered agglomeration economy, economic geography, urban and regional economy, industrial regions and social structures.

Fundamentals of clusters theory of competitive advantages formation were formulated by A. Marshall [5, p.118] at the end of the XIX century, and the term "cluster" was offered by M. Porter in the 1980s. The term "innovation cluster" was widely used after the project of regional clusters development in the USA under the name "Clusters of Innovation" appeared [6, p.51]. It reflects the fact that the companies all over the world more often have to compete not only and not so much for the productivity, but for the innovation ability. The works of Ukrainian economists V. Heyets, N. Mikula, S. Sokolenko, M. Voinarenko, etc. are devoted to the investigation of clusters concept and the argumentation of organizational and economic mechanism of their formation. In the scientific works of the above-mentioned authors the theoretical and methodological aspects of competitive clusters development are stated.

The topical issue of clusters strategy implementation was investigated in the works of such Ukrainian scientists as B. Burkinski, V. Zakharchenko, V. Osipov, O. Krainik, M. Mikheyev, etc. But the advantages and possibilities of cluster approach usage to enhance the competitiveness of cross-border regions of Ukraine are still insufficiently covered.

3. Previously unsolved aspects of the problem

Nowadays global order is outlined around large power poles. European Union with its growing economic significance becomes a pole that requires the development and realization of the interrelation model of periphery regions of different countries which would correspond to the principles of regional policy of European Union, which would support the formation of new forms of cooperation in the format "region – region".

The formation of network economy generates the need for the European regions development together with such new forms of cross-border cooperation as "cross-border clusters", "cross-border industrial areas", "cross-border partnership", "cross-border innovative projects", etc. As prospective ways of increasing competitiveness of the border regions of Ukraine, the creation of innovative cross-border clusters and industrial areas, trade and logistics canters should be considered. For this purpose there must be the practice of the realization of projects (together with foreign partners) concerning the formation of industrial territorial-sectoral production systems to enhance the competitiveness of the enterprises, effective local production and investment and financial attraction to develop the infrastructure of the region, to enhance the energy efficiency of the economy and to improve quality of the environment.

Using the cluster policy as the strategic instrument requires appropriate clarification. In spite of high popularity of cluster approach, there has not been found optimum way to define a cluster what makes it difficult to define the cluster policy. That is why cluster policy is used as generalizing name to define different ways of support and development of network union enterprises [7, p.74].

4. Statement of the problem

The aim of the article is to investigate the economic priorities of the European regions development involving Ukraine in conditions of European Union enlargement by means of creating cross-border cluster systems – institutions of network production integrity which become the poles of economic growth and competitiveness of the depressive periphery territories at the European market.

5. The main material research

Like cross-border region, cross-border market is viewed upon as single, whole, poly-structural formation. Its main specific nature is the border and the necessity to coordinate the activity of certain border territories. It is realized by means of cross-border cooperation in different organization forms.

The institutions of cross-border market combine the system of formalized rules and non-formalized relations of the participants with the external environment. Synergetic effect which appears as a result of cooperation of cross-border market subjects is explained by cost saving, property right specification, transaction cost saving (according to R. Coase) [4, p.78].

Cross-border industrial cooperation is viewed upon as the instrument of competitive recovery of periphery territories in terms of progressive technological development and the emergence of dominant technology of a new technological mode. The competitiveness of regions is the necessary condition of joining the global market and global exchange system, and cross-border regions are intensively developed in terms of globalization. Characterizing modern tendencies of production process change, M. Castells underlined that networks present the fundamental material out of which new organizations would be built. One of possible forms of network organization structures, which firmly occupied the place in modern economic theory and practice, are the clusters. According to M. Porter, "cluster is a network form which occurs in the range of geographical location where closeness of firms and institutions guarantees some forms of community and increases frequency and influence of cooperation" [6, p.117].

The main task of cross-border clusterization is to enhance the competitiveness of cross-border region economy. It will not only give odds to the participants of business in terms of productiveness growth, transaction cost saving, wide access to market outlets, technologies, economy of scale and getting a synergetic effect, but it also contributes to the strengthening of competitive status of the European region, promotion of business activity, enhancing of investment prospects, facilitating of the most rational use of the resources, improvement of innovation environment, growth of export potential and providing steady development of social processes.

According to M. Porter, geographical clusterization is one of the most dynamic and quickly spread processes of modern economic development [7]. The experts of Economic Cooperation and Development Organization state that innovation clusters are "engines of economic growth of national economies and the realization of clusters initiatives is the key instrument of making countries competitive". The given thesis is confirmed by statistics which shows the role of clusters in economic development of some countries. At the beginning of 1980-s cluster concept became of practical importance – it transformed into the key element of economic and innovation policy of the leading countries of the world and cluster initiatives got the status of effective instruments of competitive growth of single regions and national economies as well.

In spite of the popularity of cluster subject, two key aspects still remain controversial – what cross-border cluster is and how to develop it.

The problem becomes complicated because independent subjects of economic activity of postmodernity resist directed centralized management and the clusters can be formed only from

below. Incredible as it may seem, but network clusters cannot be formed in the truest sense of the word. In all importance of external stimulation of cauterization process, for example, in the form of national policy, the key place in each cluster taken by its history, by the trajectory of the previous development, is inseparable from the local institutional environment of the region and the special aspects of the certain object. Investigation of the cluster as an object showed that together with the clusters there exist a great majority of similar theories, in relation to which clusters, as usual, serve as unifying theory. It is our understanding that cross-border network cluster is a dynamic self-organized system generating innovations in the form of knowledge, new technologies and products under sufficient effectiveness of its participants at the expense of their synergy and group action [8, p.29].

It can be said that cross-border network clusters are geographic concentrations of inter-related enterprises (suppliers) of one or more innovation branches (including venture companies, universities, research and commissioning organizations, marketing and information agencies) and cooperating institutions that function on both sides of the border of the counties which compete, but at the same time cooperate with each other, gaining the benefit from specific local assets, joint cross-border location and embeddedness into economic and social area of the European region.

From the network theory point of view, clusters can be characterized as network of inter-related companies (including specialized suppliers) connected with each other into the chain of added value creation and the spread of new knowledge, products and technologies on the territory of the European region, which mutually contribute to the growth of innovation competitiveness of periphery regions by means of greater transparency of new technologies, risks distribution and transport cost saving.

Network cluster is a self-organizing system in economics one of the main important order parameter of which is the structure being inter-related with the institutional environment. Cross-border clusters were created in Europe together with the European regions formation. Many of them work without coordination structures or use the services of regional development agencies being at the same time participants of the European regions. The European regions can be used as coordination structures of those cross-border clusters the participants of which are the economic management subjects of Ukrainian border regions. At the same time the cooperation in the sphere of culture is spread on the education and science, tourist and recreation activity which resulted in the increase of border habitants activity, their participation in social organizations, etc. The activation of cooperation and its promotion on the part of European Union resulted in theories of mutual development of the European regions which in their turn helped to work out the strategies of mutual development of cross-border regions and the mechanisms of their realization.

Detailed analysis of social and economic development of cross-border region which was herein made, allowed to work out more significant cross-border projects, for example, creation of joint production areas or formation of cross-border clusters. Thus, the necessity of creating of competitive economic system in cross-border region stimulated the search of decision from the perspective of possibilities of mutual usage of existing and creation of new capacities and also the development of production and technical cooperation (agricultural, industrial enterprises, service organizations, innovation and investment activity) [9, p.12].

Cross-border cluster systems embrace adjoining border territories of neighboring countries which include groups of independent companies and associated institutions, geographically located in cross-border region. The peculiarity of cross-border clusters is the necessity of taking into account by the participants of cross-border institutions different tax, customs and legislative environment of neighboring countries in their activity. Clusters, using local natural and resource, social and economic, infrastructural potential, geographical and economic location of the territories of cross-border countries enhance the competitiveness of the regions, provide adequate standard of living of the inhabitants. Within them there are created the conditions to form and develop technical

parks, logistic canters, techno-policies and other innovation forms of economic activity organization.

The main tasks of formation and support of the cross-border development are:

1) competitive recovery of cross-border regions, enhancing of human life index;

2) promotion of new and development of existing European regions as institutional platform to reveal cross-border cluster initiatives and development of cross-border clusters;

3) providing of innovation and investment model of development of enterprises and other subjects of economic activity located in cross-border regions, implementation of new technologies in the production of goods and services.

Cluster advantages are fully realized only due to such modem managing technologies as subcontracting and outsourcing – "falling externally", based on the emphasizing of key cooperation positions and focusing all economic ties on them. The process of subcontracting provides the existence of the main enterprise – "contractor" and a great majority of small and middle enterprises – "subcontracting". Contractor or subcontractor makes an agreement according to which the contractor entrusts one or more enterprises (subcontractors) to produce details, components or key parts necessary to produce the final product. Outsourcing provides the cooperation under which "external" company which sells its goods and services to the customer is included into "managing outlines" of the customer as functional element in which case being legally and managerial independent.

Cluster approach naturally combines interests of business and territory as under this form of economy organization it is possible to mutually intensify their competitiveness. Cluster approach is directly connected with competitiveness recovery of the territory not only because it simultaneously influences the competitiveness basis (efficiency and employment), but also because it removes the contradiction between them. The level of labour productiveness in a cluster grows due to the specialization and outsourcing of incidental activities, the level of employment – due to the participation and formation of new subjects of economic activity in related and supporting branches.

Network clusters formation results in efficient competitive recovery of the European regions' economy due to several factors. Firstly, it is the reducing of transaction expenses at the expense of more efficient realization of long-term contract between industrial organizations, financial credit institutions, trade organizations, scientific and innovation organizations; fulfillment centralization of a range of general functions of companies-participants of a cluster; implementation of general cluster of informational and analytical system that promotes information exchange between the participants either vertically or horizontally. Secondly, it is the possibility to provide competitive advantages at the expense of better quality and price of the goods selling; innovation potential, sufficiency of production and merchandising power; existence of long-term strategy of activity; optimization of external and internal cluster connections. Thirdly, it is the possibility to use the potential of mutually beneficial long-term business relations; to develop the system of mutual deliveries within a cluster, built on the principles of trust; to form general sales network; to carry out intensive exchange of information, financial, human, innovation resources; to reduce the functioning risks at the expense of level of profitability reducing of the enterprises participating in a cluster; to follow the priorities of external cluster planning and the aims and tasks being set; to develop the system of cross-shareholdings within a cluster. Fourthly, it is a profit based upon the theory of production and financial management which includes:

- Economy at the expense of economy of scale;
- Efficient use of natural resources potential of the region;
- Diversification that provides the risks cushioning;
- Synergetic effect.

Therefore, it is possible to give the following definitions of the economic area which in general present dialectical unity:

1) the territory of siting and interaction of business entities, relations between which are formed in a certain social and economic environment;

2) social and economic environment of business entities cooperation formed by the mechanisms of economy control applied on the territory.

In the process of transaction to post-industrial development the function of cross-border area as the development environment will be enhanced so much that it could become a new important siting of productive forces.

Autonomy of cross-border economic environment as siting and production factor proves the possibility of synergetic effect formation, added value formation at the expenses of business entity interaction which is an essential element of economic area.

In the process of European integrity the border regions reconstruct their economic area: from semicircular determined by precedence of barrier function of the border up to circular determined by weakening or disappearing of this function. Respectively, during the European integrity processes the border regions cease to bear the name "periphery" on the national level, becoming full players (agents) of the united European economic area.

6. Conclusions and recommendations for further development

In the economic area of postmodernity the main objects of efficient economic board become industrial business networks which under the influence of globalization and internationalization processes obtain the form of "hybrid" institutions of horizontal integration – network clusters – which are the agents of technological changes as they unite the scientific research organizations and their commercialization and manufacturing application.

On its way to join European Union, Ukraine has to sum up the experience of cross-border cooperation being a preliminary and supplying stage of integration in the regions:

1) to form integral and efficient policy of cross-border cooperation development in Ukraine it is necessary to work out the theory and methods of cooperation basis and to justify new forms and mechanisms of its extension in the light of cross-border network clusters concept;

2) nowadays it is of immediate interest to work out and implement cross-border strategy of European regions development taking into account European experience of cross-regional strategies, the object of which is the steady social and economic development of European regional system as read in conjunction with its human, natural, resource and industrial potential and institution environment;

3) in our opinion, it is useful to use European experience concerning competitive recovery of border regions by means of cross-border clusters creation. It will allow strengthening of institutional ability of European regions, will help to organize the education and train highly qualified personnel in the sphere of cross-border cooperation and as the final result it will bring the opportunity to get network and synergetic effects in economic environment involving cross-border regions of Ukraine.

Thus, investigation and analysis of worldwide progressive experience in formation and development of cross-border clusters will make it possible to successfully realize the tasks of Strategy for Innovation Development of Ukraine for 2010-2020 under the conditions of grand challenges, secure funds in the modernization of industry, to develop the national innovation system. The creation of cross-border innovation clusters system which provides for intensive exchange of resources, technologies and know-how is achieved by strengthening of competitive

positions of home companies at European market and by the growth of innovation potential of Ukrainian economy in the process of European Union extension.

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Summary

Intensification of the problems of global unsteadiness at the beginning of the XXI century calls for the development of innovative forms of cross-border cooperation in the framework of the European regions. In the article it is stated that cross-border cluster unities in accordance with the worldwide experience become new forms of innovative development of the European regions with the involvement of Ukraine.

The essence and inner interrelations of cross-border network cluster is investigated as the growth factor of the European region competitiveness under the conditions of intensifying the integration processes and the necessity of enhancement of the role of periphery regions' economy in the framework of cross-border cooperation. The theory and methodology of the cross-border network clusters formation are systematized in the article. Within the context of European Union regional politics the strategic priorities of the spatial development of the European regions are stated on the basis of self-organization of "hybrid" network quasi integration institutions. Their role in the competitive recovery of the European regions in the light of Ukrainian perspectives of joining European Union is investigated.

Keywords: cross-border cooperation, network cluster, innovations, European region, integration, synergetic effect, cross-border expenses, outsourcing.

JEL classification: C12, C14, C18

UD classification: 339.92:332.1

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MECHANISMS TO ENCOURAGE REGULATION AND ECONOMIC INCENTIVES FOR BUSINESSES TO ENERGY SAVINGS

Oleksandr Kovalko, Leonora Chuprina, Violetta Boublik*

1. Introduction

Ukraine occupies one of the first places in the world according to the indicators of inefficient use of natural and energy resources (NER), which is reflected in the decline of the quality and competitiveness of products manufactured in the country. Due to high technological (technical and commercial) losses of these resources, limited working capital of enterprises and high bank interest rates on loans in Ukraine, which are several times higher than in developed countries, there will remain no resources for the state and commercial enterprises to finance energy efficiency projects.

As a result, part of losses of NER in the structure of total material costs of enterprises in Ukraine has been growing rapidly (almost three times over the period since 1991) and the rates of return to economic levels of the past decade have led to the fact that the country is significantly lagging behind not only developed countries but also behind most of developing countries.

Indecisive government's attempts to fix the extremely negative for industrial countries tendency with the help of resolutions by indirect action and government programs which are not adequately funded, have led to the fact that a huge energy saving potential in Ukraine has remained largely unused, and the problem has reached the level of threat to the energy safety of the State.

2. Analysis of the latest research

Basic scientific works of many Ukrainian and foreign researchers, especially such as by V. M. Heyets, S. P. Denysyuk, A. A. Dolinsky, V. A. Zhovtyansky, M. P. Kovalko, M. N. Kulik, G. G. Pivnyak, A. V. Prakhovnik, B. S. Stogniy, A. K. Shidlovskii, P. Bertoldi, S. Carne, S. J. Hansen, P. Langlois, M.-K. Lee, D. Newbery, J. Noh, J. P. Painuly, H. Park, M. Siner, are devoted to solving the current economic problem of increasing energy efficiency and saving. Much has been done, while in reality – low efficiency offered at the state level that does not allow Ukraine to leave the first position on the list of leaders in the world of energy waste, still remains.

Detailed analysis of the studies and publications shows that the works dedicated to market method of economic regulation and promotion of energy conservation and the development of economic mechanisms on this basis in specific conditions of transition economy, are not enough, though conceptually this approach has repeatedly been formulated by both Ukrainian and foreign researchers [1, p.41, p.43; 2, p.61; p.115; 3, p.16; 4, p.660; 5, p.31; 6, p.9; 7, p.63; 8, p.107].

Solving the problem of increasing energy efficiency and saving at the level of the economy is not a simple task and scientifically requires a complex of research focused on the development of

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methodological principles and market mechanisms of economic regulation and incentives for businesses to save energy, it is necessary to adjust the legal framework and implement special business economic order for energy saving projects, which provide favorable conditions for the use of the achieved savings of NER as the exchange of goods for investment attraction.

The article aims to systematize market methods and mechanisms of economic regulation and incentives for enterprises to save energy, to identify factors facilitating their adaptation and improvement and development of the basic requirements for their implementation in terms of transition economy in Ukraine.

3. The main body of the study

The approach to solving the problem of efficient use of energy resources in the former Soviet countries, and especially in Ukraine, with its energy-intensive production structure should be largely specific and aimed at transition to market methods of economic regulation and promotion of energy efficiency through the gradual refusal from the existing administrative-command centralized power management techniques based on a distorted system of prices, tariffs and wages, cross-subsidizing consumers and imperfect recording of the use of energy. The pace of resolving the abovementioned issues in Ukraine in comparison with EU countries can be seen from Fig. 1, where the curves are changing from year to year in energy intensity of gross domestic product (GDP) of Ukraine and the EU.

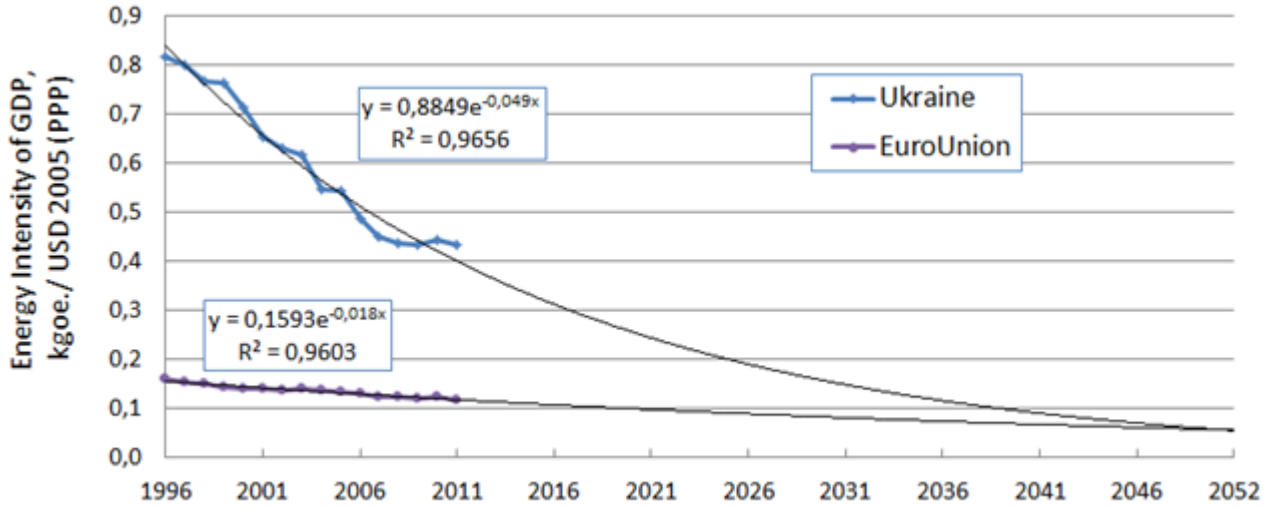

Fig. 1. Trends in energy intensity of GDP by year for Ukraine and the European Union

Source: www.yearbook.enerdata.net, authorial calculations

Results of exponential approximation of these curves with the help of predictive function Microsoft Excel spreadsheet, are shown in Figure 1, show that the average value of the specific rate of energy intensity of GDP will amount for each year of the forecast 50-year period, respectively, 0,049 and 0,018 for Ukraine and EU with the value of the reliability of the approximation, determined by the square of Pearson's correlation coefficient R^2, more than 0,96. That is, even under the optimistic scenario conservation of existing annual rate of relative decline in energy intensity of GDP, which is equal to 2,72 according to the ratio of specific indicators, Ukraine is able to catch up with the EU in terms of GDP energy intensity somewhere in the early 50s.

Mechanisms of economic regulation and promotion of energy efficiency in terms of theory are complex systems with the hierarchical structure that includes organizational, methodological, regulatory, financial, technical and economic information and relationships between all participants of economic regulation and incentives for energy efficiency to implement economically viable energy saving measures. Their main feature should be the focus on a systematic

approach and integrated energy-financial-economic indicators related to the productivity of enterprises, and their subsequent use in the formation of price incentives to increase enterprise efficiency and reduce costs. Thus the mechanisms of economic regulation and energy savings promotion are called up to provide guaranteed profit growth of companies without reducing the basic level of taxation, which is important in terms of their attractiveness to the State.

The analysis shows that the main reasons of the imperfection of available functions and mechanisms for managing energy efficiency in Ukraine are:

– In the area of pricing and tax policy it is the practice of compensation of losses for NER suppliers and utilities due to cross-subsidize consumers and budgetary subsidy rates, which gives a distorted signal to the effectiveness of different types of NER and energy-saving equipment, affects negatively the balance of payments in the country's economy and virtually eliminates the interest of suppliers and consumers of energy services in improving energy efficiency;

– In the area of regulation and standardization it is the lack of clear criteria, procedure and terms of use, which transforms the system of regulation and standardization mechanism based on achieving specific goals with progressive improvements in energy efficiency, into the mechanism of "legitimizing" the costs of NER, which are subsequently included in the expenses of companies and energy service rates for services;

– In the area of certification and marking, which is developed in the world, but not in Ukraine it is the lack of market mechanisms influencing the manufacturers and suppliers of equipment, materials and services in order to improve their energy efficiency through informing and promotion of consumers, even financially, to procurement and use of more energy efficient equipment, materials and services;

– In the area of expertise, control and certification it is the need to introduce energy management systems, energy audits providing of companies and organizations of all patterns of ownership, developing schemes and projects for attracting investments to energy efficiency, which in Ukraine are in their infancy;

– In the field of vocational education and training it is a radical change in the composition and content of training and retraining programs to careful attitude to NER and energy services that must be provided by telling about the economic, environmental and social benefits of energy efficiency and saving and monitoring and testing the level and efficiency of knowledge application.

Thus, in a market economy the primary goal of public administration in the field of energy efficiency is to ensure energy safety by creating economic mechanisms of energy markets, reduce the impact on the environment, creating conditions for attracting private investment to the development and maintenance of power supply upgrades and others.

Improvement is also required in the existing system of state management and regulation of resource issues, organizational and information supporting activities in the field of public-private partnerships, especially those related to the interaction between the state and business (symbiosis between state and market options [6, p.59, p.62]), namely:

- energy saving funds (state and municipal), environmental funds and funds for energy efficiency of enterprises;
- targeted funding mechanisms for energy efficiency projects with budgets of different levels based on revolving mechanism of preferential state loans implementation of investment projects;
- energy-transfer mechanisms in the long-term lease (leasing);
- mechanism of target-oriented loans and attraction of foreign technical assistance, including in the framework of the joint project under the green investment scheme;

- mechanisms for financing by commercial banks, credit facilities and agreements, venture capital funds.

The implementation of the abovementioned mechanisms can be done through the establishment at the local level strategic alliances, coalitions and clusters as a form of integration (cooperation, competition, etc.) acting as a single entity, legally independent entities (members) of the market-businesses, companies and organizations, including participation in affiliate interaction (financial, coordinating, regulatory, etc.) of state and municipal government. The main result of the partnership should be in obtaining and implementing synergistic effect increasing the efficiency of targeted (coordinated) activities combined in the integration of complementary assets of all market participants, which outperforms the result of individual subjects.

It should be understood that the competitive activity of entities should contribute to the improvement of production, technical, technological and economic development, rationalization of production; otherwise it will be classified as anti-competitive concerted action, which is prohibited by law.

First of all, you need to create conditions for effective use of funds released in enterprises and institutions from implementation of effective use of NER and reduction of process losses, for the return on investment and loans, implementation of new energy-saving measures and financial incentives for teams and individuals. Achieving this goal requires the execution of the basic requirements for the implementation of mechanisms of economic regulation algorithm that provides:

- pricing and potential output "product" (i.e., the volume of NER savings achieved and funds for their consumption) offered to investors as a source of repayment;
- account of goods produced as a result of implementing energy efficiency measures in the accounting system and financial reporting;
- release of the sales, storage and transfer of funds calculated in the accounting system and financial statements as a result of the decrease in fuel and energy consumption, from the current account to a special account for the target use as a return to investors, in the budgets of the city and state and the implementation of new energy saving measures;
- account of additional volume of work associated with the installation, repair and maintenance of energy saving equipment, implementation of the system for financial stimulation of employees teams and individuals who will provide savings of NER for the period of implementation of energy saving measures.

Among the most common economic mechanisms for attracting investments to energy saving as a part of international technical assistance which have already been pilot tested in Ukraine, it is worth noting the following:

- energy performance contracting mechanism;
- leasing mechanisms of supply and use of energy efficient equipment;
- incentive regulation mechanism from suppliers of NER (mechanism of demand side management);
- revolving mechanisms of multiple use of the saved funds for the implementation of new energy efficiency projects;
- mechanism for energy saving projects financing from the state and local budgets on the return basis.

Among the new market approaches to solving problems in the field of energy saving, which are being introduced in Ukraine, the mechanism of regulatory asset base (regulatory

asset base, RAB) should be mentioned, the principles of which are determined by the total value of loans and own assets of natural monopolies subject to regulation [9, p.29; 10, p.22; 11, p.3; 12, p.21].

In the case of incentive regulation under this mechanism the groups of assets included in the regulatory framework are allocated, the term of their useful life and depreciation method of assets and on the regulatory framework for the long term (at least 3–5 years) within the threshold levels are established by regulatory standards return (yield), which generates and ensures the implementation of the policy regulator.

The use of this method in developed countries has confirmed its effectiveness and significant advantages (compared with the current system in Ukraine "cost plus") with complex issues of attracting investments, reducing prices for goods and services and creating incentives to reduce operating costs of the regulated companies.

4. Conclusions

The current system of economic regulation and promotion of enterprises in the field of energy efficiency in Ukraine is unable to perform its tasks in full. Removal of existing deficiencies has already led to the fact that the problem reached the level of national importance, which solution now from a scientific point of view requires a systematic approach that is based on the methodology of public-private partnerships.

Great importance in the process of improvement of business regulation system should be given to considered implementing forms of market management mechanisms and regulation of energy saving. Thus, the main result of public-private partnerships should be to obtain and implement synergistic effect of a coordinated increase of efficiency (focused) activities combined with the integration of complementary assets of all market participants, which should exceed the total result of separate entities.

The method of regulatory asset base, the principles of which are determined by the total value of loans and own assets of companies to be regulated is currently the most common in developed countries in the tariff regulation of natural monopolies with branched network infrastructure, has been proved in practice, and in considering how to improve the existing regulatory framework, can be also recommended for the use in Ukraine.

The prospects of further developments in the field of mechanisms of economic regulation and promotion of enterprises to energy saving is determined by the necessity of the state for diversification of supply and reduction of dependence on imports of energy resources, which will raise the level of competitiveness of national goods and products on international markets.

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Summary

In this article the arguments for practical use of market mechanisms to encourage regulation and economic incentives for businesses to save energy and improve energy efficiency are presented, methods and mechanisms of regulation focused on the development of public-private partnerships are systematized.

Keywords: energy saving, economic incentives, regulation mechanisms.

JEL classification: Q400

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THE PARADIGMS OF THE PROCESS APPROACH IN MANAGEMENT

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1. Introduction

Dynamism of the environment and the desire to grow force modern organizations to become more and more complex systems. The premise of their adaptive diffusion into a competitive environment is not only competition of goods and services but also the competition of innovation management techniques. The creation of modern management technology requires the research of the above mentioned technology as a complex process, the outlining of its operations and the establishment of formal methods for their implementation.

Theoretical and methodological aspects of business management are covered in many fundamental works of scientists, in particular, much attention is paid to the development of the process approach in the works of M. Green, P. Drucker, V.G. Yeliferova, A.E. Kuzmin, IM.S. Pushkar, V.V. Repin, D. Hahn and others. Despite the significant achievements of the predecessors, the question of forming a rational management technology based on improving its structure has not received the sufficient development yet. We propose to consider management as a process that can be constructed. It is logical to assume that the structure of the management process can be controlled by the process approach that determines the necessity to investigate its development in modern concepts of management.

2. The main section

A review of the scientific literature on management allows us to suggest that nowadays there are two paradigms of the process approach.

The basic premise of the first paradigm is the following message: management is "a process which consists of series of ongoing, interrelated activities or functions within the organization" [1, p.71–72]. The above described paradigm has dominated in management for a long time and today it is also quite common. However, we believe that it contains a number of contradictory principles.

First of all, its basic principle is essentially corresponds to the notion of process as a follow-up set of operations to transform inputs into the required outputs. If we believe that in management the head has a number of separate functions there must be specified their elements and sequence. But no one of these issues has found a clear and convincing solution in the scientific studies.

At present, there is little agreement of researchers on general management functions. In numerous scientific papers on the problems of management authors tend to list their own management functions that differ from others' in quantity and content. If the nature of the management process really consisted of the implementation of common functions, such difference of opinions makes it impossible to outline the specific sequence of operations and as S. Yanh noted "introduced the work of the head as something chaotic" [2, p.67].

Moreover, the list of functions is expected to combine in a single process different activities: on the one hand planning, control (management impact on the organization), from the other hand – the motivation, encouragement and managerial influence on the activities of employees.

As for the sequence of functions, which according to the nature of the process should be defined

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and repeated for each cycle of control, the issue was not considered and some authors just list simple management functions, or as in the matter of the composition of management functions they just offer their different sequence. So, M. H. Meskon, M. Albert, A. Hedouri [1, p.72] start the process from planning and finish with control, A. V. Vasilenko believes that it starts with analysis and finishes with accounting [3, p.255], others [4, p.37] believe that it begins with forecasting and finishes with analysis.

Therefore, the considered paradigm of the process approach contains a number of contradictions. On one hand the nature of the process approach requires its operations to take place logically one after another, in other words it requires the establishment of a specific structure and sequence of similar operations. From the other side, the use of functions as components of the management process gives a false picture of its effectiveness.

The above mentioned issues identified and systematized by us, as for experience of using the process approach, such as the lack of a single common control functions; absence of a single sequence of control functions; combination of different components in the list of functions, give reason to decide that to structure the process of management there is no sense to use the traditional paradigm of the process approach. Moreover, following its essence (in fact management is characterized as a chain of related functions) it should be considered as the one that implements a functional rather than a process approach.

Let's analyze the modern concept of the process approach that actually makes it a new paradigm. In recent years, mainly due to consulting firms in the sphere of management, there is a concept of "process management" or "process-oriented management" which is getting more and more popular, it is based on the allocation of business processes in the organization and in there management [5, p.33; 6, p.16]. According to this approach, the scientists determine its two types [5, p.56–57; 6, p.116–117; 338]:

- combination of business processes with the existing functional and hierarchical structure. When using it in a company there is a net release of business processes, which cover all activities of the company or do it partially. In this case, the network of business processes is tied to the functional units, so they coincide;
- selection of cross-organization processes which are not tied to the functional units. While implementing it there are business processes created that are fully or partially include the activities of various functional structural units of an organization. The processes are structures in accordance with the chain of values.

Based on the management theory, this approach affects only organizational management structure. In the first case the linear functional structure is used, in the second one the matrix one is used. In the final case, the concept of "process management" aimed at designing and redesigning the business processes [5, p.241–270; 6 p.42–80; 7, p.144–147; 8, p.173–174] to detect excessive or too costly business processes and to increase efficiency. Thus, the "process management" is essentially the concept of business process reorganizing and or has a similar drawback: although it uses the engineering paradigm, however, modeling the management process itself did not get any development in them.

We believe that more constructive in terms of solving the existing problems are the following concepts: management by objectives, controlling and total quality management, which also have been developed within the new paradigm of the process approach. Let's consider them.

The concept of management by objectives (Management by Objectives) was developed by P. Drucker and recearched by J. Morryseya, J. Odiorne and A. Raya. For example A. Ray justifies the necessity for managers to focus on achieving the goals and the best results by using available resources. It comes from the unity of objectives and results and suggests that on the basis set general objectives of the enterprise managers determine specific goals for the activities of each business unit to ensure their achievement in the

management of production. That is the whole management process focused on achieving outcomes through evaluation managers for a number of indicators that measure the results obtained.

The management of this concept itself is usually represented as a series of stages [9, p.15–17]: the formation of clear, concise goals; development of realistic plans to achieve them; systematic measurement and evaluation of results and outcomes and corrective actions to achieve planned results. Since the formation of the purposes referred to the planning, and evaluation of results and actions correction are referred to control, this process is often presented as planning, plans implementation and control [10, p.65].

The idea of focusing on achieving goals through decomposition of results of development is found in many modern concepts of management: Balanced Scorecard (BSC) R. Kaplan and D. Norton, pyramid of performance of McNair and efficiency prism of E. Neely.

In general, the concept of management by objectives: emphasis on performance management and provides guidance in this process: the goals of the organization, which are defined in terms of "results"; concentrating efforts and motivate managers and employees to achieve organizational goals; uses a set of indicators to monitor the results. Although staff action management process is developed in the concept, there is no theoretical justification for their sequence that makes us hesitate about the proposed action and to consider them as transaction management process. Moreover, there is no formal description of the proposed process: inputs and outputs, components and methods for their implementation. The concept of controlling unlike the concept of management by objectives, where the emphasis are made on establishing goals and objectives at all levels of management, in controlling more attention is paid to the objectives and first of all economic ones, by comparing results obtained with the results planned. To solve this problem the special mechanism of "adjustment disorders" is introduced [11, p.75; 12, p.175–190].

Analysis of modern scientific achievements [12, p.16–19; 13] suggests that scientists are trying to determine functions of controlling and thus, to make it closer to the concept of management, which would have had an integrated value. In this area the most advanced are development of German scientists, who do not focus on the functions of controlling and view management as a set of phases (or components): planning and control [14, p.20; 15, p.55]. So, Peter Horvath process management represents a typical vicious circle of action: the establishment of performance indicators, comparing actual data with target (planned), the analysis of deviations and corrective measures [14, p.21].

The most reasonable, in our view, is the position of D. Hahn and H. Hungenberg. They consider the governance in the broad and narrow sense. In the narrow meaning the scholars understand it as "the process and implementation of the will making and will realization, which are made in relation to other subordinates aimed at achieving one or more goals and the one that requires taking the related liability" [15, p.48], in the wide sense it is considered as "the process of solving problems in achieving the goals set" [15, p.46]. The final meaning of management allowed the authors to identify the six phases of the process [15, p.46–56]: problem; search of alternative solutions; evaluation; decision-making; implementation and monitoring. The abovementioned phases of control are further combined into three parts: planning, management and control.

First of all, the proposed structure of the management process may counter fight with the theory of management, which, as you know, in addition to the functions of planning and control is seen as at least as another function of organization and motivation. However, it should be emphasized that in this case the authors consider the planning, management and control is a management function, and as "the process of obtaining, processing and transmission of information" [15, p.58]. This view, in our opinion, is appropriate. Separation of the two dimensions of governance (in the narrow and broad sense) allowed the authors to consider the structure of the management process, highlighting certain elements and their sequence. However, it should be noted that the use of terminology of functional approach is inappropriate because it generates a doubt as for the completeness of features and hides the essence of "phases" and "blocks" the management process that causes a criticism [16, p.13].

A major shortcoming of controlling is that although the authors use elements of the modern paradigm of the process approach on practice (management in controlling is presented as a combination of two phases – planning and control, clearly defined the basic information and targets planning), but it is not fundamental to this concept: there is no clear separation of operations of the management process; the main achievement of the process approach is not fully used – the ability to create rational management technology is targeted.

The concept of total quality management (TQM) considers how to ensure the product quality through the prism of the quality assurance process. In this connection, the attention is focused on the selection of individual processes in production and establishment of certain requirements for their implementation.

It should be noted that although TQM and used elements of the process approach, as in previous concepts he has not received the theoretical development. The model of quality management in ISO 9001: 2000 is being discussed. The process in this case is represented only schematically by input, production and output. As for the cycle which includes: management responsibility; resource management; measurement, analysis and improvement, the logic structure of such controls based on the process approach, and their sequence is unclear.

An attempt to structure the quality control process seems to be interesting. This time we are talking about the PDCA cycle of E. Deming. If it is considered carefully, the circle mentioned above is nothing but a model of discussed above management of goals (goal setting – planning–review and rating – corrective action), provided that in this case the goal of customer satisfaction is considered with high quality products using the full volume regulation mechanism for deviations.

Thus, the process approach to quality management system is implemented through the development of internal standards, which are fixed requirements processes. A clear definition of their inputs and outputs provide traceability deviations and timely adjustments. However, all the attention is focused only on internal information and internal deviations of actual results from the planned once. In fact, the implementation of the process approach to TQM did not go further than allocation of a number of manufacturing processes and installation requirements for their inputs and outputs. An attempt to structure the process of management, in fact, corresponds to phases of planning and control, which are used in above considered concept of management by objectives and control.

Our analysis of modern management concepts, which in fact constitute a new paradigm of the process approach, suggests that the last one, unlike the traditional paradigm more fully realizes the idea of building inter-related processes in the organization. However, an attempt to distinguish stages of management planning and control in these concepts has no convincing justification. In addition, it is inappropriate to transfer terminology of function approach to the process – that cannot clearly identify the structural components of management.

All of the abovementioned leads to the following conclusions:

- there are two paradigms of the process approach in modern management;
- the contradiction of the traditional paradigm of the process approach is defined, its essence is that the requirement of a rational structure management process cannot be completed due to lack of a single warehouse management functionality, a single sequence of their execution and combination of features in the list of different nature elements. The contradiction defined gives reason to believe that to solve the problem structuring process management does not make sense to use the traditional paradigm. As far as it represents management as a chain of interrelated functions, it should be considered as functional approach;
- to modern concepts, which in fact create a new paradigm of the process approach should be included: reengineering of business processes, process management or process-oriented management, management by objectives and its modern modifications (BSC, performance pyramid, prism efficiency, etc.), controlling , total quality management. The current paradigm of the process approach, as opposed to traditional, represents the organization as a set of processes

which can build a structure that will meet the requirements;

- we identified several shortcomings of modern concepts, among which the main ones are no theoretical justification attempts to distinguish the phases (phase) control (typically, planning and control); absence of formal description of the management process (inputs and outputs, components and methods of their implementation); inappropriateness of applying functional approach in terms of syllable management process. Because of the shortcomings identified a new paradigm of the process approach needs to be developed.

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Summary

Two paradigms of the process approach to management are outlined. The basics of the traditional paradigm and their pros and cons are considered. The modern concepts of management are characterized. The components of the new paradigm of the process approach are outlined and their pluses and minuses are overviewed.

Keywords: the process approach, the structure of the management process, the concept of management.

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INNOVATION STRATEGIES OF SMALL INDUSTRIAL ENTERPRISES

Vitaliy Lutsyak*

1. Introduction

Freedom of small manufacturing enterprises in business promotes innovation processes. Small businesses form and implement the marketing mix on their own: manufacture valuable goods, set their prices, establish business contacts and form the sales system, define measures and means of promoting their products.

Marketing strategic management ensures effective coordination of a company's market policy with factors of external market environment. Neglect of marketing or bad marketing strategies inevitably lead to bankruptcy, so the formation of an effective strategy is one of the most important tasks of the management of any enterprise [1, p.7].

2. Analysis of researches and publications in recent years

Strategies development of small manufacturing enterprises, which ensures the functioning of the enterprise at the market is a relevant theoretical and practical task, to the solution of which the works of many domestic scholars and scholars of near abroad such as M. Bech, S. Varnali, A. Woychak, A. Kostusev, A. Fisher, L. Fedulova and others are devoted.

3. Highlighting unresolved issues

The rationale of the process of development and selection of innovation strategies of small manufacturing enterprises are highlighted.

4. Statement of the problem

The aim of this work is to identify the major innovative strategies for ensuring the competitiveness of small manufacturing enterprises in the current economic circumstances.

5. The main materials of the study

The strategy of small manufacturing enterprises can be defined as a comprehensive plan for the conduct of the enterprise in conditions of uncertainty and changes in market conditions, including the formation of the mission, goals, ways, principles and rules of decision making for the effective use of the potential and protection from the external environment threats in order to ensure competitive advantages and future profitability of the company.

Innovations in economic activity suggest the creation of new types of economic activity on the basis of existing patterns. This strategy requires a thorough research in the development or transfer of new equipment, development of new products and ensuring their variety, enhancement of existing or creation of new markets. The use of this strategy should be based on the study of the potential of the region and the activity of the enterprise for the presence of opportunities for the development of raw material base. It is necessary to follow such conditions because the production of new products within a new economic activity requires a stable supply of raw materials.

The place of innovative strategies in the strategic planning system for small manufacturing enterprises is determined by the fact that innovation strategy, first of all, should raise and/or maintain the competitive status of the products and the whole enterprise. Innovations aimed at

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changes in the manufacturing process, which is closely linked with all other processes in the company, may cause changes in the production process and marketing organization, as well as in staff training and the management system.

Innovation strategy of a company should reflect the content of the basic processes occurring in it, thereby ensuring innovative development and enhancing the competitiveness of the enterprise as a whole.

Innovations are developed and introduced in the market in accordance with the terms of the marketing environment. Thus, it can be argued that the theory of the product life cycle, competitiveness and competitive advantages of the enterprise, as well as scientific-technical policy of small manufacturing enterprise constitute the basis for innovative strategies development [2, p.308].

The process of developing an innovative strategy assumes equivalent interaction between intuition and rationality. The entrepreneurial vision of the future is the motive force of the development of small manufacturing enterprises. However, if the entrepreneur's ideas are applied without proper feasibility study and rational analysis, negative consequences are quite possible.

Selecting specific innovation strategies at the enterprise level or at the micro level depends on innovative strategies at a higher level. Through a system of its own factors the macro-environment creates the conditions for functioning of the enterprises in scientific and technical areas, which correspond to world trends. Innovative activities of the company are directly (through the influence of the macro-and microenvironment factors) and indirectly (through the influence of contact audiences) coordinated in accordance with these trends.

There are many classifications of innovative strategies depending on the level of planning and implementation; managerial behavior, etc.

Analysis of the current innovation perspective allows us to distinguish the following main types of innovation [3–7]:

– innovation of products (services);

– innovation of technological processes or technological innovation;

– innovation of the equipment;

– organizational innovation;

– social innovation.

Innovation of products (services) is the process of updating the sales potential of the company, which ensures the sustainability of the enterprise to changing factors of economic environment, the expansion of its market share, customer retention, strengthening the independent position of the company and others.

Innovation of technological processes or technological innovation is the process of updating the industrial potential of the enterprise, which aims to increase productivity and save resources. This, in turn, provides an opportunity to increase profits, improve safety, conduct environmental activities, implement new information technologies, etc.

The innovation of the equipment is the process of development, implementation and use of new equipment resulting from scientific research on the company or acquired from outside sources.

Organizational innovation is the process of improving the organization of production and management at the pre-acceptance stage.

Social innovation is the process of improving enterprises' social sector, which mobilizes staff for the implementation of the company strategy; extends the capabilities of the enterprise on the labor

market. It is also the process of strengthening the credibility of the social obligations of the company to employees and society in general.

In her works L. Fedulova provides the following classification of innovative strategies according to the company's position relative to its competitors:

– offensive strategy;

– defense strategy;

– simulation strategy;

– dependent strategy;

– traditional strategy;

– situational reaction strategy (niche marketing strategy) [8].

Offensive strategy is typical for companies that base their activities on the principles of business competition. It is connected with the desire of enterprises to achieve technical and market leadership by creating and introducing new products. This strategy assumes a constant orientation of the enterprise on global scientific and technological achievements, which are funded and implemented by the enterprise, rapid response and adaptation to new technological opportunities. Its characteristic feature is the active involvement of employees in the creation and implementation of innovations. Offensive strategy can be used either by small manufacturing enterprises with innovation orientation (venture capital) or large enterprises, that are actively exploring the market to extend their influence on other attractive spheres of action.

Defense strategy aims at maintaining the competitive position of the enterprise on the already occupied markets. This strategy adheres to most businesses that avoid excessive risk. They tend to move a step behind the leaders on the market and adopt the innovation only after verifying its availability. However, such enterprises do not fully imitate new products. Products undergo significant changes, which increases their competitiveness and adapts them to new market segments and niches, and it contributes to the implementation of innovations in other areas or their transfer to other markets.

Simulation strategy is used by companies that are not pioneers in the introduction of certain innovations on the market, but they have purchased the license at the pioneer company and adapted their technologies for the production of these innovation. Sometimes imitation can take place without the permission of the owner of technologies or technological developments. In doing it, the enterprise simulator does not merely copy the main consumer properties of innovations, but also gets certain benefits in manufacture.

Dependent strategy – the nature of technological change in the application of this strategy depends on the policy of enterprises, which act as founders for small manufacturing enterprises that do not attempt to change their products, because they are closely linked with the requirements of their parent company. Small businesses of this type are common in capital-intensive industries, their market success depends on the demand for the main product of a parent company. Such firms do not carry out innovative search independently, but provide the highest criteria of quality and flexibility of adaptation to the requirements of new technologies and markets. Most of them operate in the service sector and promote products to new markets.

Traditional strategy. This type of strategy does not provide any significant technological changes, so it only nominally belongs to the innovation group. Very often it happens that manufacture is fastened to a certain innovative form for a long time period. This strategy improves maintenance of traditional products, and it has inherent traits of other innovative strategies. Despite the traditional meet of demand, the shape and quality of the enterprise that operates on the traditional strategy basis is constantly evolving.

Situational reaction strategy (niche marketing strategy) is a response of management to the external market signals and changing environment. Here the innovative activity of an enterprise lies in searching information regarding opportunities that companies may have in new circumstances or finding a special niche in the existing markets of goods and services with the consumer that has an unusual but significant variety of needs. This type of strategy is often used by companies that are starting out and trying to quickly enter markets using their traditional capacity.

Each of strategies listed can be used as an independent course of action, or in combination with others. However, their use requires a thorough analysis of the situation on the market, real forecasts and feasibility calculations of efficiency according to different variants of development of events.

In accordance with the level of marketing management at the enterprise and the degree of generalization of the main objectives and plans of the company it is possible to distinguish three types of strategies: conceptual, managerial, and operational.

Conceptual marketing strategies are formed on the basis of functional dependencies of production on the volume and structure of demand. The concept of enterprise is formed at the highest management with regard to the general laws of the market, global trends in demand, fluctuations in market conditions, economic cycles, and so on. The general concept of strategy can be the mission of the company.

Managerial marketing strategy is justifying the choice of the best ways of production and sales. The marketing mix is formed and directed at formation of a particular product supply and its reinforcement, creating distribution channels and sales forms. The form of such strategies is a detailed marketing plan.

Operational marketing strategy is a system of means and methods of market research and learning the factors that shape the external environment of the enterprise. These strategies deal with specific tasks. Strategies can take different forms depending on the task peculiarities. As an example it may be given a questionnaire, which is built in such a way that it enables us to collect information about specific phenomena and trends on the market or help us plan certain activities aimed at the establishment of marketing relations.

A theory of the product life cycle, competitiveness and competitive advantages of the enterprise, as well as the scientific-technical policy of small manufacturing companies constitute the basis for developing innovative strategies.

Tab. 1. Conceptual approach to the creation of a portfolio of innovative strategies

Phase of an enterprise life cycle	Marketing objectives an the enterprise	Innovative company goals	The composition of the portfolio strategies
Entrance to the market – stage of entrepreneurship	The gradual growth, economies of scale, a significant share of production is in the process of entering the market	The introduction of new equipment, the introduction of strategic innovation.	R & D: leadership research, Marketing: radical advance
			R & D: licensing Marketing: product and process simulation, vertical borrowing
Intensive development - the stage of commercial links	The rapid growth: the development of production, a significant share of production is in the growth stage	Increasing number of produced equipment, intensive development of new products and processes.	R & D, knowledge intensity of anticipating Marketing: technological connectivity
			R & D: licensing Marketing: technology transfer
Stabilization – the stage of stabilization of business activity	Very high growth: increase in market share of the enterprise, the rapid introduction of	Growth of technical level of production, development of new products and	R & D: research leadership, advanced science Marketing: following the market
			R & D: following the life cycle

	new products on the market	competitive advantages of enterprise	Marketing: the strategy of the leader, saving technological positions
The collectivity stage	Very high growth: the growth of market share of the enterprise, improvement of basic products, bringing new products to market, on the basis of key products	Optimization of the technical level of production, increase of competitiveness, reduction of production costs	R & D: a parallel development, Marketing: technological connectivity
			R & d: licensing Marketing: following the market, product and technology simulation, technological connectivity
The formalization and control stage	High growth: stabilization of competition on the market, assortment optimization stage	Support of high technical level of products and technologies, ensuring accordance of the product life cycle stages and the R & d cycles	R & D: advanced technology capacity, following the life cycle Marketing: the strategy of the leader, following the market
			R & D: licensing Marketing: saving technological positions, following the market, technological connectivity, vertical drawing

The analysis of a company's potential from the standpoint of its strengths and weaknesses is considered to be one of the first steps in developing the principles of strategic planning. Usually the analysis is complemented with a plan of possible changes in firm's possibilities. This allows to dynamically adapt the strategy of the company to changes in both the external environment and its internal organizational capabilities.

In order to be successful, any business strategy should be based on company's achievements and its competitive advantage. A company has a competitive advantage when its competitive position is characterized by a more favorable position relative to rivals in the competition and it attracts more customers. Competitive advantages may be different: the advantage of higher quality goods, providing customers with a wider range of goods and services, sale of goods at relatively low prices, a more favorable geographic location, production of goods that do not have equivalent counterparts, production of more reliable and durable products, combination of high quality, good service and reasonable price.

Whatever the strategy the company has chosen, if it seeks to achieve a competitive advantage, it must attract the attention of consumers to their products, providing them greater "value" than the buyer expects. Additional value is created in one of two ways: either by providing customers with high-quality made products at lower prices or by providing products of "higher quality" than the ones the buyer expects even with the premium markup.

Small manufacturing enterprises, which are independent market subjects have to exert considerable efforts to create a positive market reaction to the innovation: the introduction of innovations on the market and their adaptation to market conditions [9, p.55].

6. Conclusions and prospects for further development

Globalization processes of economic development and the global financial crisis have significantly complicated the planning requirements and the implementation of innovative marketing strategies. In crisis conditions, when the resources of the majority of enterprises, especially small and medium businesses, are very limited, unreasonable costs on marketing innovations can lead to significant complication of their financial condition. Therefore the problem of strategic marketing innovation management is becoming increasingly urgent [10, p.35].

Under conditions of intense competition companies are forced to use all possible forms and methods of its conduct, sometimes doing things that go far beyond the level of traditional competition. One of such methods is using innovative marketing strategies.

Innovation strategy is one of the means to achieve the goals of an organization. It's different from other tools in its novelty. Examples of such strategies are: offensive strategy, defense strategy, simulation strategy, dependent strategy, traditional strategy, action by the situation (niche strategy of choice) and many others.

An example of such strategies is the offensive strategy, defense strategy, simulation strategy, dependent strategy, traditional strategy, situational reaction strategy (niche marketing strategy) and many others. The existence of a large number of innovative strategies is caused by a variety of possible activities, variability of environmental conditions, STP, increased competition in the market and so on. Small manufacturing enterprises in modern conditions must devote considerable attention to the development strategy that will be adapted to the environmental conditions and will give the opportunity to achieve the main goal of any enterprise – to obtain maximum profit at minimum cost.

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Summary

This paper examines the nature and significance of innovation strategies of small industrial enterprises. The main innovation strategies that provide competitive and innovative development of small industrial enterprises in the current economic circumstances. The process of developing and implementing evidence-based innovation strategy.

Keywords: innovation, strategy, enterprise, business, marketing, management, efficiency.

JEL classification: M200

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THE POTENTIAL USE OF INTANGIBLE RESOURCES OF BUSINESS ENTITIES IN ECONOMIC SECURITY ASSESSMENT

Melnychuk L.Y.*

1. Introduction

The problem of economic security entities characterized by high complexity and priority category, as also by large number of functional elements and factors that determine it. In this regard, study of theoretical principles the concept of "economic security entities" requires the consent of all system resources and the entity of their structural components, and determining the place and role of intangible resources in ensuring economic security of entities.

The problem of determining the nature and classification of intangible assets (IA) are engaged by many domestic and foreign researchers. The very first attempt at a full-scale study IA was the work by B. Lev [1]. Further development of this problem was found in the writings of L. Edwinson [2], T. Stewart [3], A. Brooking, T. Copeland [5] and others.

2. The main material research

- Economic security entities considers:
- Synergy effect (enterprise's economic security increases as a whole greater than the sum value of individual asset components);
- The cost of intangible resources that not is reflected in the balance sheet (reputation, goodwill, intellectual and human potential);
- Prospects for further development, including future revenues and earnings that may be obtained.

Accordingly, the most valuable and acceptable definition of the essence of economic security entity is as its state of operation in which the company and its products are competitive in the market and at the same time provided: the most efficient use of resources, intellectual and human potential; stability operation, stability and progressive development.

In terms of International and European standards assessment, measurement of IA is associated with valuation of the business [6 p. 769], and also of its separate parts [7]:

- Retained IA (goodwill);
- Identifiable intangible asset.

In accordance with the International Financial Reporting Standards IA are divided into the following groups:

- Related to customers: customer lists and customer contracts;
- Related technologies: technologies, patents, software, databases, know-how;
- Related to contracts, licenses, royalties, license agreements and franchising agreements, labor agreements;
- Associated with marketing: trademarks and service agreement rights;
- Associated with art: literary, artistic and musical works, video and audiovisual materials.

The obvious is the fact that in order to use intangible resources in Ukraine effectively it is necessary

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to put all the elements of IA on the balance. This task is complicated by the choice of identified and unidentified IA valuation technique.

IA evaluation is the least developed branch of professional assessment. By their nature, IA are a special kind of assets for which the assessment cannot be used by universal methods of assessment.

Of all the methods that are used in the income approach none of the methods other than the method of excess profits, does not assess the hidden intangible resources share. So we proposed a modification of the method of excessive profits, based on changes to the Calculated Intangible Value (CIV) method, proposed by T. Stewart [3, p. 82]. For practical application of the modified method of excessive profits we have made some suggestions, namely regarding to calculation of the hidden IA (i.e. intangible resources that the entity has, but are not shown in statements due to the imperfection of accounting).

In the article it was substantiated own vision of hidden intangible assets indicator as the sum of three components: human capital, customer capital and organizational capital company. This approach provides identification off-balance sheet intangible objects and the possibility of studying their contribution to determining a reasonable level of economic security entities.

To attempt to quantitatively display these hidden IA we have put forward a number of hypotheses:

1. Structure of tangible assets of entities of one industry rather similar and typical.

2. The difference between economic entities of one industry can be explained only by intangible resources.

From this it follows:

– Tangible assets are almost identical and match industry's average level;

– IA is the difference between individual assets of the entity and industry's average level assets.

Generally accepted that the total assets of an entity equal to the sum of its tangible and intangible assets:

$$A^{b} = A_{m}^{b} + A_{n}^{b}; \quad (1)$$

where, A^b – the book value of assets;

A_m^b – the book value of tangible assets;

A_n^b – the book value of intangible assets.

Taking into account that one industry entities characterized by similar structure of assets, and the share of IA that is recorded in the statement of financial status is extremely small, we consider the structure of assets can be add as follows

$$A^{b} \approx A_{m}^{b} \quad (2)$$

It follows that the hidden IA amount can be found by comparing the assets of the entity with industry's average assets:

$$A_{n}^{vb} = A_{m}^{b} - \overline{A}_{m}^{b} \quad (3)$$

where A_n^{vb} – hidden (off-balance sheet) value of intangible assets;

$\overline{A}_m^b$ – industry average book value of assets.

Provided the use of Calculated Intangible Value (CIV) method we estimate almost all quantity of intangible assets. However, the final value obtained does not contain intangible resources type's details. In the process of determining the optimal level of intangible resources in providing economic security entities we managed the following conclusions and also make some suggestions:

- The share of intangible assets in total assets of large enterprises should be the largest (approximately 40%) and gives the least impact on the return on equity;
- The share of intangible assets in medium-sized enterprises should be about 12% of total assets;
- The intangible assets proportion of small enterprises and their expenditures can be minimal, but even their low level gives the most significant impact on return on equity.

3. Conclusions and recommendations for further development

Modern research methodology economic security entities has several limitations that prevent the solution of urgent theoretical and methodological problems, such as:

- The categorical apparatus of the evaluation of intangible resources is not enough developed to improve economic security entities;
- There is no generalized method of the obtained results of different models approaches to assessing the economic security entities;
- The models of economic security entities do not reflect the processes of formation and use of intangible assets.

Summing up the value of IA in providing economic security entities can be argued that there are many interpretations of intangibles, which differ depending on who describe them: foreign author, domestic author, a lawyer, manager, company owner, estimator or an accountant. The main feature of intangible resources is their uniqueness. Accordingly, we can conclude that the concept of intellectual capital and intangible assets are used as synonyms depending on who examines their and what goals researcher puts. Perspective evaluation of the total value of intangible resources should be search for the most appropriate ways to identify and correct assessment of individual components of intellectual capital.

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Summary

The article deals with theoretical and methodological aspects of potential intangible resources to assess the level of economic security entities. The approach to measuring intangible resources of entities to identify their degree of influence on economic security was considered.

Keywords: intangible resources, intangible assets, economic security entity, return on equity.

JEL classification: O320

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SCIENTIFIC ASPECTS OF HUMAN RESOURCES MANAGEMENT OF THE ENTERPRISES OF SANATORIUM-RESORT COMPLEX TAKING INTO ACCOUNT ANTI-CRISIS MEASURES

Natalia Niecheva*

1. Introduction

At the modern stage of social and economic transformation in Ukraine, the role of the labor (human) resources of the enterprises and their efficient management, taking into account anti-crisis measures, is becoming more and more important. Special attention to human resources management is needed in the areas that have a social orientation, namely in recreation. That's because the health resort sector is one of the main branches of social policy of the Ukrainian government in treatment, improvement of the human resources and their reproduction.

In the "Strategy of tourism and resorts development" it is mentioned, that "The changes in the geopolitical environment, the socio-economic development, modernization of information technologies have significantly affected the dynamics of international tourism, have led to transformation of the tourism industry focused on meeting various needs of individuals who are traveling" (The order of the Cabinet of Ministers of Ukraine, 2003, 2008).

In modern period in the sphere of recreation the crisis consequences of market transformations are aggravating in the field of inefficient management of human resources and their development: general and seasonal reduction in the number of the employed without sufficient qualification; reduction of availability of the services of sanatorium-resort institutions for population, etc.

Therefore, we should say that the development and further improvement of the sanatorium-resorts activity largely depends on the effective human resources management; optimal organizational structure of personnel management; well-grounded tasks and objectives of the enterprise; and clear interaction of these components in the management of the company in general and human resources management in particular.

Scientific and theoretical, methodological and methodical basis at different levels in scientific researches and specialized economic literature is insufficiently developed and does not consider anti-crisis measures. This requires further development of the theory of human resources management of sanatorium-resort establishments of Ukraine. We must say that in the sphere of resorts, the term "sanatorium-resort establishment" they begin to replace by the term "enterprises of sanatorium-resort complex", which is defined as follows: "The enterprises of sanatorium-resort complex – are the enterprises that provide with sanatorium-resort services and that are located in the resorts or in the therapeutic areas".

While considering the question of human resources management of the enterprises of sanatorium-resort complex, its development and implementation within the framework of the effective mechanism, the scientific factor of validity is becoming more actual; thus it's the validity of the mechanism of the effective human resources management that should be emphasized, taking into account the anti-crisis measures according to the national policy of Ukraine.

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2. Description of data and methodology

In modern period, there is a lack of a complete study of the given problem on the basis of studying the opinions of both domestic and foreign scientists and bringing together the separate judgments on the subject matter. It requires a study of the organizational and methodical regulations on the increasing of the efficiency of human resources management, and presupposes the definition of a developed system of principles of human resources management, coherent actions of human resources management, taking into account the specifics of sanatorium-resort enterprises and anti-crisis measures. In our research we developed a system of effective anti-crisis management of human resources of sanatorium-resort enterprises (Fig. 1) and proposed anti-crisis measures.

3. Economic essence of human resources management of the enterprises of sanatorium-resort complex

The state policy of Ukraine in the sphere of resort business is determined by the Verkhovna Rada of Ukraine and is based on the following principles:

- legislative definition of terms and order of organizing the activity of sanatorium-resort enterprises;
- ensuring the availability of sanatorium-resort treatment for all the citizens, primarily for disabled people; veterans of war and labor; veterans of war; citizens, who suffered from the accident at the Chernobyl NPP; children; women of reproductive age suffering from gynecological diseases; tuberculosis patients and patients with injuries and diseases of the spinal cord and spine;
- consideration of the demand for specific types of sanatorium-resort services within the development and approval of national and local programs of the development of resorts;
- economical and rational use of natural medicinal resources and ensuring their proper protection;
- facilitation of the transformation of Ukrainian sanatorium-resort complex in a highly profitable and competitive branch of economy.

To implement this policy, we must define the rules for making decisions, taking into account the anti-crisis approaches, by which the enterprise will be guided in its activity in general and in human resources management in particular.

On the basis of the above-mentioned, an urgent need occurs for identifying the main positions, principles and objectives of human resources management of sanatorium-resort establishments taking into account the anti-crisis measures.

On the 1st of January, 2013 there were about 3012 enterprises of sanatorium-resort complex in Ukraine and the number of people employed there was 119396 persons; the activity of these enterprises is directed towards the satisfaction the needs in the health-resort treatment, rehabilitation and recreation of citizens.

One of the urgent problems related to reforming Ukraine's economy in the post-crisis period is the problem of effective management of human resources, especially at the enterprises of socially-oriented sectors, particularly in health-resort sphere. According to L. S. Doroshenko [1, p.18], the human resources management is an integral part of the regulation system of social and economic development of the society. It is directed at: satisfaction of need of the economy in qualified personnel; ensuring the effective employment and rational distribution of the employees among the spheres of labor and territories; efficient use of resources and labour. This definition of human resources management is given in general and, therefore, at the state level or at the regional level.

The definition of human resources management, corresponding to the level of the enterprise (organization, complex) will be given below on the basis of the further study.

For the definition of human resources management at the level of the enterprise it is necessary to take into account the following provisions:

– management must be understood as an interrelated process of planning, organizing, motivating and controlling that are necessary to achieve the goals of the enterprise. Management of human resources is a link management, which focuses on achieving the objectives of the organization;

– in modern conditions it is expedient to use the approach of strategic planning and strategic management. Therefore, the human resources management must also be strategic. An important task of the human resources management is the development of strategic goal and the plan for its achievement, that is needed in order to use the limited resources efficiently (including human resources) and to achieve the strategic goals under the circumstances of market competition;

– while developing the strategy, human resources management must take into account the overall strategy of the enterprise and other functional strategies (finance, production, marketing 1etc.). The goal of functional strategies should let the other strategies to achieve their goals, which allows to reach the general strategy of the enterprise;

– each company has certain human resources(human), material, financial and other resources that are limited. It is human resources with consideration of external factors that determine the strategic goal of the enterprise and alternative implementation plan.

Thus, we can define the human resources management at the level of the enterprise as follows – it is the process of creation of the strategy of formation, usage and development of labor (human) resources, as well as the process of implementation, motivation of the staff within the implementation of the strategy and the process of controlling its fulfillment. All these processes should be focused on the fulfillment of the company's strategy with regard to anti-crisis approaches in human resources management, especially in the socially-oriented industries, particularly in the health-resort sphere.

This definition suggests a systematic approach to the human resources management of the enterprises of sanatorium-resort complex, it takes into account all the components of the human resources management's system, which should be implemented and based on the social orientation of the enterprises of the recreational sphere taking into account the anti-crisis management approaches.

In any case, human work is an important component of the company's profitability. In the service sector (services), particularly in the health-resort sphere, human resources became the value that put the very existence of a single organizational-economic mechanism in direct dependence on the quantity and especially the quality of work itself, taking into account the anti-crisis component, i.e. it is meant the management of human resources and enterprises of the recreational sphere taking into account the anti-crisis approaches, because this field is socially oriented.

Stages of formation and development of the enterprises of sanatorium-resort sphere include the stages of decline, the stages of ascent, the crisis and the impact of the crisis on the post-crisis period.

Restructuring of organizational character, some structural transformations that are taking place in the economies of all countries and in human resources management of the enterprises of sanatorium-resort complex lead to disability methods of human resources management of sanatorium-resort institutions. Existing approaches do not provide an effective functioning of the

enterprises of sanatorium-resort complex and their workers, they do not ensure continuity of operations, do not create sustainable and efficient state management of labor (human) resources of the enterprises of sanatorium-resort complex.

The modern period of development of the enterprises of sanatorium-resort complex and human-resources management at them can be described as a quite complicated one, because the transition to market relations has deepened the disproportions between the following:

– solvent demand of the population and the price of the enterprises of sanatorium-resort complex;
– the level of financial support for the material and technical base of the enterprises of sanatorium-resort complex and infrastructural capacity of the resort;
– tendencies of supply and demand, and the mechanism of filling sanatoria and health resorts;
– the need to attract foreign investments in construction and reconstruction of recreational objects;
– imperfection of investment and tax legislation, concerning the wellness recreation.

The main problems of domestic enterprises of sanatorium-resort complex and human resources management are the following:

– reduction of the number of the enterprises;
– inflated cost of tickets for domestic resorts;
– insufficient level of qualification of the personnel;
– the lack of choice and poor quality of the services provided by domestic resorts;
– low adaptability of human resources in retraining and qualification improvement;
– incomparable with the foreign resorts infrastructure and material-technical base of domestic resorts;
– insufficient level of salaries;
– insufficient efforts to promote regional tourist product in the domestic market;
– the destruction of the regulation mechanism of social tourism that was organized at domestic resorts in previous decades [2, p.472].

Taking into account the above mentioned problems in the activity of the enterprises of sanatorium-resort complex and human resources management there, it must be said that sustainable development of the enterprises of sanatorium-resort complex in Ukraine requires the formation of a fundamentally new model of management of enterprises in general and of human resources management in particular, based on the analysis of international standards, trends and experience, as well as the constructive interaction of all the branches of economy of the country taking into account the anti-crisis approaches in human resource management of the enterprises of sanatorium-resort sphere.

Indeed, the aggravation of the crisis consequences of conducting market reforms led to leaving the job by many workers of the enterprises of sanatorium-resort complex, insufficient level of qualification of workers, seasonal closure of establishments of recreation sphere.

4. Anti-crisis measures

Within the formation of the mechanism of the human resources management of sanatorium-resort establishments it is necessary to distinguish such definitions as “risk” and “crisis”. The risk is any credible threat, for which you can prepare beforehand and systematically. The crisis is an extremely dangerous and unstable situation which has arisen or which is developing and requires an immediate response.

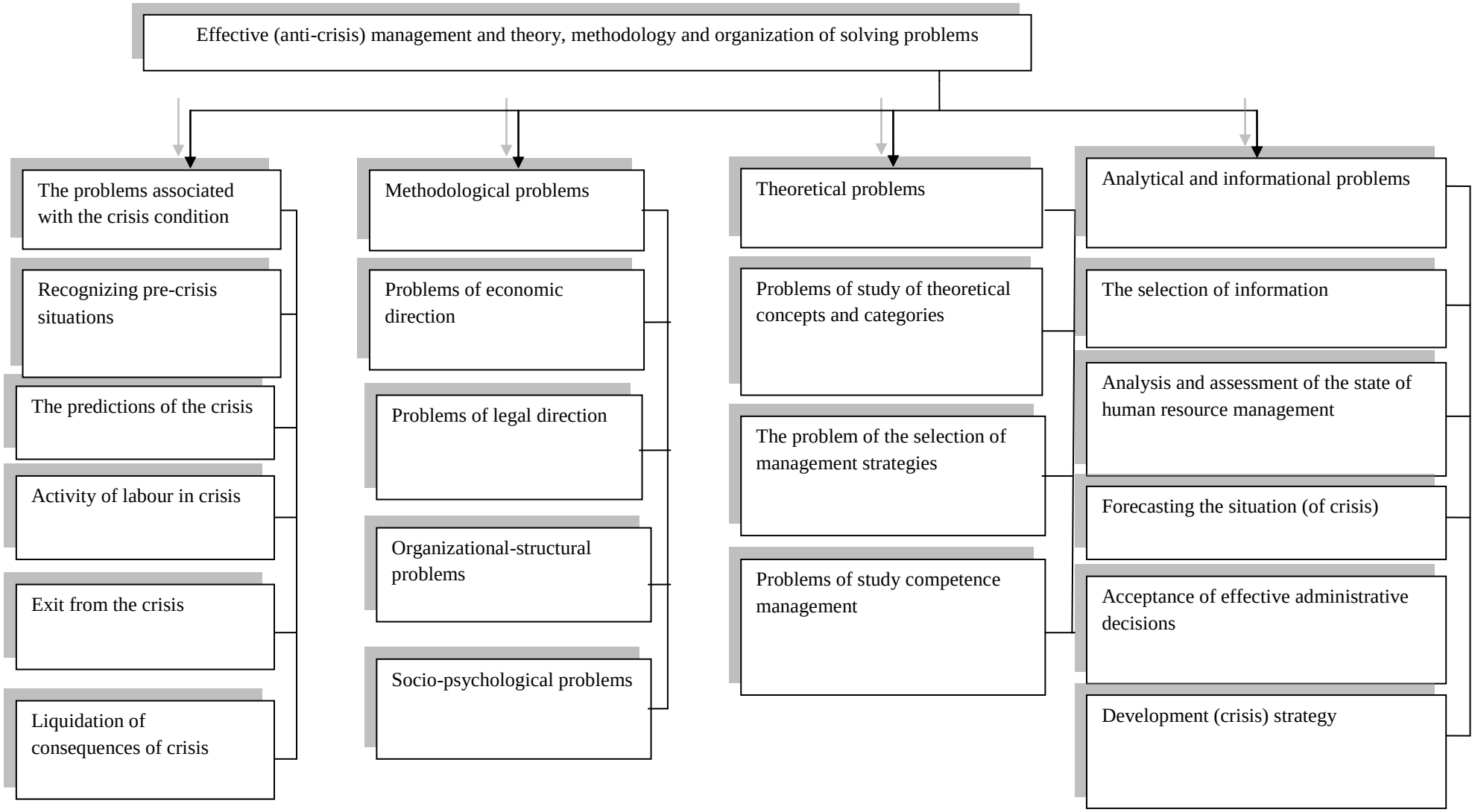

Fig. 1. The problems of effective human resource management of sanatorium-resort establishments

This approach allows us to distinguish "crisis management" and "risk management". Nevertheless, in recent years we can observe in foreign and domestic practice the combination of methods of crisis management and risk management [3, p.10].

The classic explanation of the systemic crisis and instability was given by the American scientist-monetarist I. Fisher in his "Theory of the great depression" in which he argues that financial instability is largely correlated with the macroeconomic processes, in particular with the dynamics of the total debt in the economy [4, p.223].

In general the crisis management should be considered as the control that will prevent or mitigate crisis situations. In regard to the interpretation of the essence of crisis management it is useful to identify the following approaches:

- the pre-crisis management, which is carried out for the timely identification and resolution of problems (decisions) to prevent the crisis;
- the management under crisis conditions, which determines the stabilization of unstable state and preservation of the managed system;
- the management of processes in the post-crisis period, which is carried out for minimization of losses and missed opportunities during the bailout.

Summing up the analysis of the different scientific opinions concerning the management with regard to anti-crisis approaches, we come to the conclusion that while considering the sustainable development of sanatorium-resort institutions and the effective management of human resources in particular, the mechanism of the management cannot be considered separately from organizational components of economic and social direction.

Taking into account the generalization of literary sources and the synthesis of the most characteristic features of the concept of human resources management of sanatorium-resort establishments, the anti-crisis approaches is treated as the implementation of strategies to address the threats of negative trends in the processes of human resources management.

From our point of view, the essence of effective human resources management of sanatorium-resort establishments with regard to anti-crisis measures is revealed through a systematic approach that allows us to consider the research object as a system consisting of a set of interacting subsystems.

The effectiveness of the process of human resources management of the enterprises of sanatorium complex is possible only when the managers are able to foresee and predict complex economic phenomenon. To achieve all the goals a flexible approach to human resources management of the sanatorium-resort complex is needed.

5. Conclusions

Taking the above-mentioned scientific and theoretical statements on human resources management in the sanatorium and resort sphere into consideration, we can outline the following scheme of fundamental issues of the effective human resources management at the enterprises of sanatorium-resort complex, which consists of four main components:

- problems connected with the crisis condition;
- methodological problems;
- theoretical problems;
- analytical and informational problems.

The resolving of these issues is the basis for building effective management of human resources of the enterprises of sanatorium-resort complex on the basis of consideration the anti-crisis management approaches and advanced system of principles for the management of these processes in the recreational sphere in general and in the sanatorium-resort sphere in particular.

Considerable attention should be paid to the identification and substantiation of the concepts and categories of human resources management as a theoretical basis of the mechanism of human resources management at the enterprises of sanatorium-resort complex.

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Summary

The article considers the problems of development of the enterprises of sanatorium-resort complex and human resource management at them, which gives the opportunity to see the stages, at which the crisis phenomena can be observed, and their impact in the post-crisis period on functioning of these enterprises.

The shortcomings of the formation of the effective mechanism of the human resource management of the enterprises of sanatorium-resort complex were analyzed taking into consideration the anti-crisis measures, and the system of effective management of human resources of the enterprises of sanatorium-resort complex was proposed.

Keywords: management, human resources, crisis, sanatorium-resort enterprises.

JEL classification: M120

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THE DEVELOPMENT OF CAPITAL MARKETS OF NEW EU COUNTRIES AFTER THE IFRS ADOPTION

David Procházka, Jiří Pelák*

1. Introduction

Increasing economic globalisation and integration of capital markets push for the introduction of a single set of internationally harmonised accounting standards (Ball, 2006). Accounting harmonisation is defined as a process, which aims at increasing the compatibility of accounting practices by setting bounds to their degree of variation (Nobes and Parker, 2012). International harmonisation of financial reporting is motivated by investors who seek the best opportunities to invest their scarce economic resources.

The investors look for the investments meeting their preferences on return, risk, and liquidity regardless the national boundaries. Financial statements of companies domiciled in a particular country are source of potentially useful information for all investors. However, home agents have better knowledge of local factors shaping the content of financial statements prepared in conformity with national GAAP, which may result in decision-making bias. Foreign investors, being exposed to an information risk, thus require risk premium for their investment (Gordon and Bovenberg, 1996), which increases the cost of capital of home investees. Both parties may profit from the harmonised accounting rules.

On the one hand, investors are able to better assess the profitability and threads of a wider range of investment opportunities. Facing the reduced estimation risk, they are willing to accept a lower rate of return. On the other hand, the adoption of internationally accepted financial standards transmits a significant signal about the investees' reporting incentives (Skinner, 1994; Burgstahler et al., 2006). By incurring bonding costs voluntarily, they commit to prepare financial statements, which are supposed to provide international investors with information useful for their decision-making (Dumontier and Raffournier, 1998). As remuneration, they obtain an access to cheaper capital.

The demand for internationally comparable financial statements is therefore of endogenous nature. At present, the international harmonisation of accounting is represented by worldwide adoption of the International Financial Reporting Standards (IFRS). According to the IASB's statistics, the IFRS were used in 114 jurisdictions as at the end of 2014. Regarding the EU, the process is driven by the Regulation (EC) 1606/2002 on International Accounting Standards. From 2005, companies publicly traded in the EU regulated capital markets are obliged to prepare their consolidated financial statements in conformity with IFRS.

The changeover is connected with material benefits and costs, which are unfolded equally neither across companies, nor countries. The shortcomings in institutional setting may close off all potential benefits from harmonised accounting, which is pertinent mainly for the transition countries. The aim of this paper is to identify absolute and relative winners and losers among new EU member states in terms of the development of their capital market. In particular, we will assess its size measured by a fundamental criterion "number of listed companies".

The paper is organised as follows: Chapter 2 develops the hypothesis, which is tested in Chapter 3 using both the literature review and the analysis of empirical data. Chapter 4 concludes, outlines the main limitation of study, and suggests future direction of research in the field.

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2. Literature background and hypothesis development

The assessment of outcomes of accounting harmonisation requires the identification of the goals, which impelled policy makers to endorse the adoption of IFRS. Hope et al. (2006) discover that countries with a relatively weak investor protection are more likely to adopt IFRS. Imposing bonding costs, stemming from the switch to high-quality standards, on domestic entities should make capital markets more attractive for foreign investors.

The study of Ramanna and Sletten (2009) evidences that strong economies are reluctant to hand the power over standard-setting to independent international authority. The authors also stress the importance of network effects, which are further elaborated in Ramanna and Sletten (2014). They found out the degree of IFRS harmonisation of a particular country increases in the perceived value of its IFRS network. High value of the network effects may result in adopting the accounting rules, which do not suit well to domestic institutions. In fact, some countries adopting IFRS may do it, even if it means the replacement of local standards of quality superior to IFRS. Political factors and dependence on imports of mineral and other resources could be another reason, why countries adopt IFRS (Alon and Dwyer, 2014).

Ramanna and Sletten (2014) explored that the European Union was the main driver of network benefits from international accounting harmonisation through IFRS. As the IFRS adoption has a wide range of economic consequences, their proper assessment requires a systematic approach. Brüggemann et al. (2013) propose the classification matrix with reference to the goals of the Regulation (EC). They distinguish intended and unexpected economic consequences based on whether they were assumed in the text of Regulation. According to the Regulation, the adoption of IFRS as an exclusive set of accounting standards for European listed companies is supposed to ensure a high degree of transparency and comparability of financial statements, and thus to enhance the functioning of capital markets. In the EU context, harmonised financial reporting is considered as a necessary condition for the completion of the internal market for financial services and free movement of capital. Broad, smooth-functioning and cost-efficient stock exchanges are expected to contribute to higher economic growth and employment. A possible link "(foreign) investments – employment – growth" is analysed by Procházka and Procházková Ilinitchi (2011).

Based on the classification of Brüggemann et al. (2013), capital market effects are the intended consequences. Those effects are quite extensively scrutinised. The research splits up into two main categories. Firstly, a direct impact on characteristics of capital markets is explored; namely liquidity, cost of capital, bid-ask spread, and development of foreign equity and debt investments are under scrutiny. Secondly, indirect effects include e.g. informativeness of earnings announcements, the analysts' forecast accuracy.

However, the influence of IFRS adoption on quantitative features of capital markets (e.g. the number of issuers; changes in composition of market segments; etc.) is rather undervalued. Furthermore, the research effort is concentrated mainly on former EU-15 countries. New member states are usually out of scope, despite IFRS adoption was expected to significantly enhance the quality of their financial reporting. There are two explanations for this inequality. Firstly, economic power of transition[†] countries is considerably lower in comparison with the old member states. According to the Eurostat, the old countries generate 91,8% of the EU gross domestic product, despite their population creates "only" 79,2%. Moreover, Germany, France, Great Britain, and Italy produce individually

[†] For the purpose of this paper, the transition countries encompass new members from CEE region accessing the EU in 2004 and later (i.e. without Cyprus and Malta). Although some of them are OECD members, their economic and institutional environment significantly differ from the original EU-15 countries' setting, which justifies the usage of "transition countries" further in the text.

more than all 13 new EU states combined. The second reason behind the ignorance of transition countries is insufficient information coverage in databases used for empirical research (see e.g. the comment in Footnote No. 3 by Procházka (2012)). This paper will focus on publicly available data on a fundamental characteristic of capital markets, namely the number of listed companies. The main aim is to evaluate the progression of stock exchanges in new EU states compared to the development in old member states. The results of empirical analysis will be confronted against the principal goal of the Resolution (EC), which strives for the improvement of capital markets in order to attract new investment opportunities. We hypothesise that insufficient researchers' attention to the new member states is a consequence of the relatively low importance of capital markets in these economies.

3. Review of relevant literature on capital markets effects of the IFRS

Economic consequences of the IFRS adoption are currently the top area in empirical accounting research. 0 summarises the cardinal recent studies focusing on the impact of IFRS adoption on characteristics of capital markets. The researchers investigate esp. how the harmonisation of financial reporting of listed companies has affected the cost of capital and liquidity of their equity instruments. Furthermore, the influence on analysts' forecast and their accuracy is assessed. The last major stream of research in this area deals with the changes in ownership composition, with emphasis on foreign investors.

Tab. 1. Capital market characteristics after IFRS adoption: evidence from research

Paper	Findings: Cost of capital and liquidity
Daske et al. (2008)	Increase in market liquidity; decrease in cost of capital; increase in equity valuation around the IFRS adoption Positive effects only for the companies with reporting incentives for transparency and in countries with strong legal enforcement Stronger effects identified for the voluntary adopters
Lee et al. (2008)	Significant reduction in the cost of equity capital in countries having high-quality institutions; mixed evidence for countries with low financial reporting incentives and insufficient enforcement
Li (2010)	Once again, the reduction in cost of capital only in strongly enforcing countries Increased disclosure and enhanced information comparability are the drivers for the decrease in cost of capital
Daske et al. (2013)	Increase in liquidity and decline in cost of capital is present only for the "serious" adopters, but not in case of "label" adoptions
Christensen et al. (2013)	Capital market liquidity improved in five countries, which made substantial changes in enforcement regime simultaneously with the IFRS adoption The change in accounting regime did not affect the liquidity of capital market even in countries, who have strong regulatory and enforcement environment
Paper	**Findings: Analysts' following and forecast accuracy**
Tan et al. (2011)	IFRS adoption attracts foreign analysts, particularly those from other countries simultaneously adopting the IFRS Mandatory IFRS adoption improves foreign analysts' forecast accuracy, but not domestic analysts' accuracy
Byard et al. (2011)	Analysts' absolute forecast errors and forecast dispersion decrease only for mandatory IFRS adopters domiciled in countries with both strong enforcement regimes and domestic accounting standards that differ significantly from IFRS
Horton et al. (2013)	Quality of the information environment (including forecast accuracy) increased more for mandatory adopters relative to non-adopters and voluntary adopters
Paper	**Findings: Influence of IFRS adoption on investment allocation**
DeFond et al. (2011)	Foreign mutual fund ownership grows provided that mandatory IFRS adoption resulted in improved cross-country comparability of financial statements

Brüggemann et al. (2012)	Stocks experience a significant increase in trading volume, as global mandatory IFRS adoption enhances cross-border equity investments by individual investors
Florou and Pope (2012)	Institutional holdings increased for mandatory IFRS adopters; changes occur especially around the first reporting period Institutional investments are concentrated in countries with strong enforcement/reporting incentives and with relatively high differences between local GAAP and IFRS
Beneish et al. (2012)	IFRS adoption has a significantly greater effect on foreign debt than on foreign equity investment flows Post-adoption increases in foreign equity investment are conditioned upon high governance quality; however, the growth in foreign bond investments has occurred regardless the quality of corporate governance

Source: Authors' review of the extant research

Empirical research provides some evidence that the IFRS adoption contributed positively to the progression of (EU) capital markets. However, the revealed benefits are limited to the occurrence of two concurrent conditions: (a) strong country's enforcement regime; and (b) credible adopters' incentives to report transparently.

Despite the great contribution to our knowledge, research designs of the above papers have some shortcomings, which restrict the feasibility of their generalisation. Firstly, a low number of transition countries are included in samples testing cross-country settings, e.g. three in Li (2010), Brüggemann et al. (2012), Florou and Pope (2012), Daske et al. (2013); two in Daske et al. (2008); and even not a single one in (Lee et al., 2008). Furthermore, the country-unique studies focusing on empirical exploration of capital market characteristics in transition countries are very rare. There is only limited evidence for Romania (Ionaşcu and Ionaşcu, 2012; Mihai et al., 2012). Secondly, the research deals with changes in economic effects on companies listed in the pre-adoption compared to post-adoption period. However, the studies ignore the possibility that the change in financial reporting regime that followed the announced/completed IFRS adoption:

- may have attracted IPO (i.e. new listings); or
- may have boosted exits from stock exchanges (i.e. delisting).

Therefore, we will investigate an aggregate development of regulated capital markets within the EU, with focus on transition countries. The countries from CEE region are viewed as having underdeveloped institutional framework, which influences the functioning of capital markets negatively. The switch to IFRS, which are generally considered as standards of significantly higher quality than local GAAP, may have contributed the improvement.

4. Empirical data on the EU regulated capital markets

Based on the argumentation above, we will assess whether the adoption of IFRS has had any impact on the size of regulated capital markets in the new EU countries. The size of capital market is approximated by the number of listed companies.

0 captures the development of equity instruments listed on regulated markets of stock exchanges in EU countries from 1995 till 2012. In 1995, the European Commission published a strategy "Accounting Harmonisation: A new strategy vis-à-vis international harmonisation", which expressed a strong EU support to the IASC activities. Five years later, "EU Financial Reporting Strategy: the way forward" communicated a commitment that issuers of securities traded on EU markets would prepare their consolidated financial statements using the same set of financial reporting standards. The Strategy was enacted by issuance of the Regulation (EC) 1606/2002 on International Accounting Standards, which mandated all companies listed on EU regulated markets to prepare their consolidated financial statements in conformity with IFRS for each accounting period starting on or after 1 January 2005.

Tab. 2. Number of listed companies in the EU countries: 1995–2012

Country	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Austria	109	97	114	91	86	99	92	96	102	102	98	86	73	70
Belgium	143	174	156	143	250	235	222	153	163	167	166	161	158	154
Bulgaria	26	503	399	354	356	332	331	347	369	399	398	390	393	387
Croatia	61	64	62	66	66	145	145	183	353	356	271	240	209	184
Cyprus	41	120	145	154	152	149	144	141	141	135	128	123	117	111
Czech Rep.	1,635	131	94	78	63	54	36	29	32	18	16	16	15	17
Denmark	213	225	208	193	187	178	179	201	198	216	217	206	186	174
Estonia		23	17	14	14	13	15	16	18	18	16	15	15	16
Finland	73	154	152	147	142	134	134	134	130	126	125	123	121	119
France	450	808	791	772	934	898	885	717	707	966	941	901	893	862
G. Britain	2,078	1,904	1,923	2,405	2,311	2,486	2,759	2,913	2,588	2,584	2,179	2,056	2,001	2,179
Germany	678	1,022	749	715	684	660	648	656	658	638	601	571	670	665
Greece	212	329	338	341	339	340	307	318	292	300	296	287	275	267
Hungary	42	60	57	48	49	47	44	41	41	41	43	48	52	51
Ireland	80	76	68	62	55	53	53	57	60	58	55	50	48	42
Italy	250	291	288	295	271	269	275	284	301	294	291	291	287	279
Latvia	17	64	63	62	56	39	45	40	41	35	33	33	32	31
Lithuania	351	54	54	51	48	43	43	44	40	41	40	39	33	33
Luxemb.	61	54	46	46	42	42	39	36	34	34	34	33	31	29
Malta	5	10	12	12	13	13	13	14	15	19	19	20	20	20
Netherlands	217	234	180	180	268	256	237	226	122	110	121	113	108	105
Poland	65	225	230	216	203	225	248	267	328	349	354	569	757	844
Portugal	169	109	97	63	55	52	48	47	47	49	48	47	46	46
Romania	7	5,555	5,140	4,870	4,484	4,030	3,747	2,478	2,096	1,824	1,824	1,383	1,267	77
Slovakia	18	493	515	354	306	258	209	173	153	125	107	90	81	69
Slovenia	17	38	38	35	134	140	116	100	87	84	76	71	66	61
Spain	362	1,019	1,458	2,986	3,223	3,272	3,300	3,339	3,498	3,536	3,435	3,310	3,241	3,167
Sweden	223	292	285	278	262	256	252	321	272	341	333	331	340	332

Source: The World Bank/World Development Indicators (row "CM.MKT.LDOM.NO")

Above mentioned benchmarks shaping the financial reporting of listed companies in the EU are highlighted in bold in the 0. In 2012, the biggest number of equity instruments was traded on the Spanish capital market. The second largest stock exchange was in Great Britain, followed by France, Poland, and Germany.

Poland is the exception among transition countries; the capital markets in new member states are quite underdeveloped (with Estonia and the Czech Republic being the last, as far as the number of issuers concerns). However, the dynamics over presented period are of higher importance. E.g. in 1995, the second largest capital market (in terms of the number of equity listings) was the Prague Stock Exchange. Similarly, the biggest market in 2000 was in Romania. After the next 15–20 years, those two exchanges are at the rear of the ranking with just a fraction of listed companies compared to the past years.

The drastic drop can be explained with reference to the unique way selected for the transformation of the former state companies in the communism era to a new model based on private ownership. Both Czech and Romanian government opted extensively for the mass privatisation, which led to largely dispersed ownership of companies by millions of people. The following concentration of equity interests came about spontaneously via domestic stock exchanges. The concentration turned to quite rapid delistings (from the RMS market in case of

Czech companies); and relatively slower exits (from RASDAQ market in case of Romanian companies). For the purpose of this paper, this pattern of ownership consolidation cannot be contributed to the IFRS adoption.

On the other hand, the Warszawa Stock Exchange has experienced the strongest growth; the number of issuers has risen by almost 300 % from 2002 till 2012. The success might have been a result of favourable institutional factors, including the change of financial reporting regime.

A substantially growing number of issuers (till 2008) can be also witnessed in Croatia. These few examples motivate to analyse the development in each country in detail, because there can be relative winners and losers from the IFRS adoption on cross-country level. Similar findings are expressed by Christensen et al. (2007), who identified uneven cross-sectional dispersion of benefits from the IFRS adoption on company level. Using data of 0, we calculate the relative change in equity instruments traded in each country for two periods:

– the percentage change between years 2002 and 2005 (pre-adoption period);
– the percentage change between years 2005 and 2012 (post-adoption period).

The break-down into two subsamples follows the comments of Christensen (2012) to Kim and Shi (2012) evidence on the voluntary adoption of IFRS. Despite EU announced its intention to mandate IFRS in 2000 and approved the Regulation (EC) in 2002 with effective date from January 2005, only an inconsiderable portion of the EU listed companies voted for quasi-voluntary application of IFRS during the transitional period 2002–2005. Moreover, most of increase shall be attributed to the listings on Neuer Markt Börse Frankfurt (Leuz, 2003; Cuijpers and Buijink, 2005), for which issuers were supposed to submit their financial statements in compliance with IFRS or US GAAP. Christensen (2012) concludes that truly voluntary IFRS adoption was rare. Using the revealed preferences theorem (Samuelson, 1938), we assume that firms affected by Regulation (EC) were reluctant to adopt IFRS earlier than in year 2005, as they perceived the net benefits from early adoption to be negative.

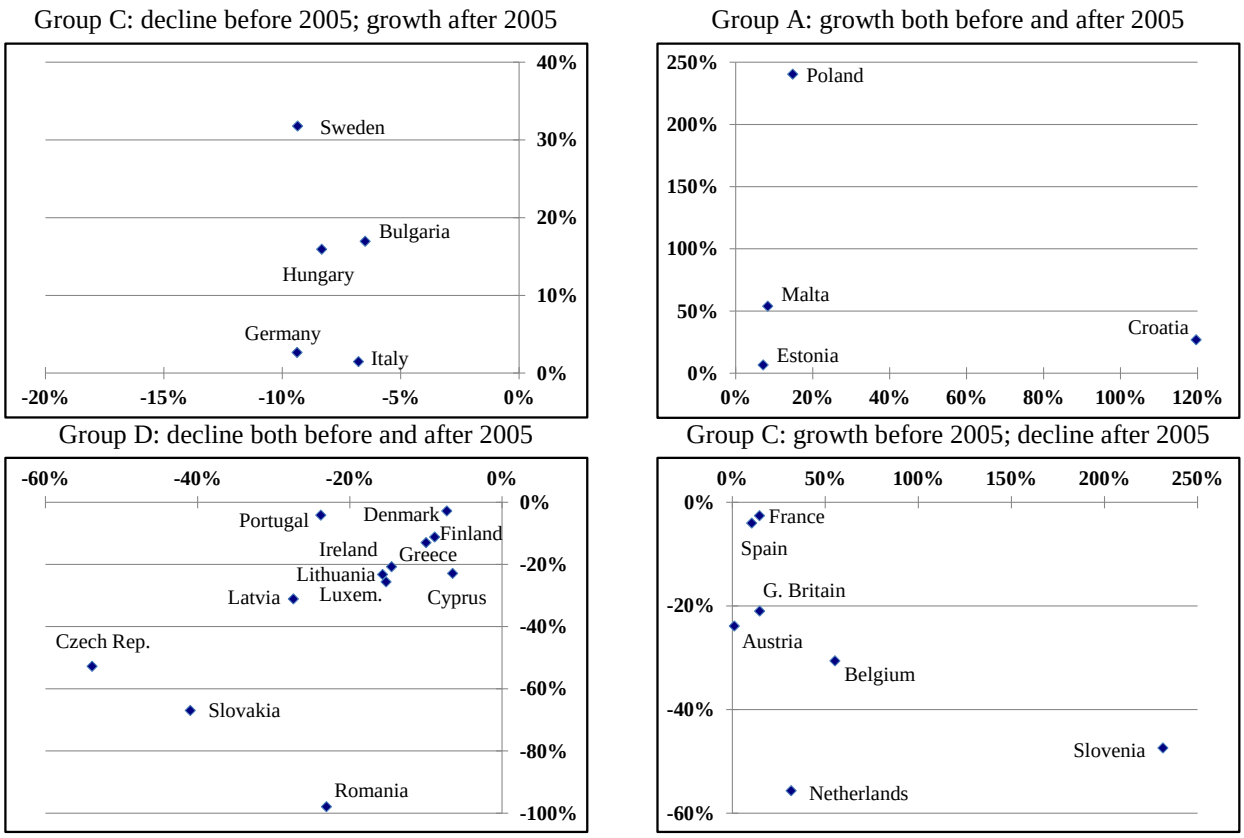
Based on the reasoning above, the splitting of data into two subsets should control over two different factors determining the new listings and delistings. Firstly, the adoption of IFRS meant (a) significantly higher disclosure requirements compared to domestic standards for the majority of EU countries; and (b) relatively high administrative costs (IT systems; staff training; etc.) for the switch and compliance (ICAEW, 2007). This may impel companies to deliberate their abidance at regulated capital markets. The harmonisation of financial reporting may induce explicit and implicit cost pressing companies to exit the capital markets. The delisting is more likely to (a) companies with low reporting incentives and/or (b) countries with strong enforcement regime. These factors are relevant to delisting decisions during the transition period (i.e. between 2002 and 2005), which are mostly influenced by expected benefits and costs of remaining on the exchange.

Secondly, the separate analysis of the changes in the number of listed companies in the post-adoption period allows assessing, whether the IFRS adoption has brought positive or negative effects in particular country. Companies listed before 2005 have already switched to the new system, so there are no implementation costs.

Holding enforcement, institutional, and other economic factors constant, the delisting in post-adoption era is then just the consequence of significant real costs for compliance with high quality standards, which are not accompanied by sufficient benefits. Contrariwise, if the quality of capital markets improves due to the IFRS adoption, new issuers may be attracted to enter the stock exchange with initial public offerings. The changes in size of capital markets measured by the number of traded equity instruments are presented in 0.[‡]

[‡] Data on EU-15 countries + Cyprus and Malta are illustrated in the Figure, but not commented at the text, as we focus on the characteristics of CEE countries only.

Fig. 1. Pre- and post-adoption period changes in the number of listed companies



Source: Authors' calculation based on 0

Data are divided into two subgroups. The horizontal axis captures the net growth of the listed companies in period 2002–2005 (i.e. pre-adoption period); the vertical axis represents the development in post-adoption period (i.e. the relative change of year 2012 to 2005). Based on the results, countries are classified into four clusters. Group A contains countries, which could be considered as absolute winners, as they experienced the net growth of listed companies both in pre- and post-adoption period. Poland is on the top of rankings as the number of issuers has risen from 216 to 844 over scrutinised time frame.

The positive development in Croatia might be result of its preparation for the EU accession, which came later than for the rest of CEE countries. Despite included in this group, there is no significant change in the size of Estonian stock exchange, as the number of issuers was very low throughout the whole period – 14 issuers (2002); 15 (2005); and 16 (2012).

The majority of transition countries from CEE region are located in the lower left cell of the matrix (i.e. in Group D), which indicates a drop in traded equity instruments in both sub-periods. The greatest exits of listed companies are documented in the Czech Republic, Slovakia, and Romania, which cannot be attributed only to economic reasons (e.g. concentration of ownership following the mass privatisation). It could be assumed that IFRS adoption in these countries brings unintended negative consequences in terms of large-scale delistings. Lithuanian and Latvian stock exchanges have experienced a slightly better, but still very negative progression, losing almost 50% of issuers compared to year 2002.

The rest of transition economies belong to Group B and Group C. Slovenian stock exchange underwent reforms in segmentation of markets in 2002, which consequently increased the number of equity instruments reported in the World Bank Database in 2003. However, these companies were already present at the capital markets, so the positive movement is just a statistical reclassification. Taking into account further development, the capital market in Slovenia has developed in the same negative way as in the companies under Group D. Mixed evidence is

available for Hungary and Bulgaria. A fall by approximately 10 % in pre-adoption period is followed by the net new listings growth (almost by 20 %) in the post-adoption era.

To conclude this elementary analysis, Poland is the only winner among new EU countries from CEE region, regarding the size and efficient functioning of capital market in the era of internationally harmonised financial reporting. The Warszawa Stock Exchange is able to attract firms seeking the financing, including foreign issuers. According to PwC (2014), Polish capital market was the European No. 1 in 2012 and No. 2 in 2013 by the number of IPOs.[§] On the other hand, there is a large group of companies, which might be considered as denoted as the absolute losers of a battle for benefits from accounting harmonisation, as their capital markets have substantially shrank after the approval of Resolution (EC). This group encompasses the Czech Republic, Slovakia, Slovenia, Romania, Latvia, and Lithuania. The characteristics of regulated capital markets in remaining CEE countries (*i.e.* in Hungary, Bulgaria, Estonia, and Croatia) have not significantly changed over the examined period. Compared to situation in other transition countries, these four economies may be viewed as relative winners, as they manage to avoid a quite massive process of going private.

5. Conclusion

The review of extant research, focusing on economic consequences of the IFRS adoption on capital markets characteristics across EU countries, revealed that the process is associated with relatively high benefits in some countries and relatively significant costs in other countries. The findings of archival studies investigating e.g. the change in cost of capital, liquidity, analysts' forecasts accuracy are also confirmed by the analysis of progression of capital markets in terms of their size (measured by the total number of equity instruments traded on particular national stock exchange). Despite simplicity, the measure of size allows identifying the absolute winner with a steadily and hugely increasing number of new issuers, which is Poland. Secondly, we may differentiate the relative winners, i.e. Hungary, Bulgaria, Estonia, and Croatia; their stock exchanges remained relatively stable in period after the approval of Regulation (EC) in 2002. Finally, the biggest group contains absolute losers, as they experienced significant declines in a number of publicly traded equity instruments during the IFRS era.

As far as the contribution to current state of art concerns, the empirical results presented in our paper partly support the findings of studies on relationship between the quality of standards and the quality of financial statements. For example, Skinner (1994); Ball et al. (2000); Ball et al. (2003); Burgstahler et al. (2006); Hail et al. (2010) point out that accounting quality depends on firms' reporting incentives and functional enforcement regime rather than on the quality of accounting standards. A widespread occurrence of benefits stemming from accounting harmonisation is therefore not guaranteed.

This is highly relevant especially for those transition countries, which suffer from low quality of enforcement and insufficient incentives of domestic companies to report transparently. In addition, we provide supportive arguments for the conclusions of Christensen (2012), who argues that research tends to overestimate the benefits and undervalue the costs connected with the IFRS adoption. He concerns primarily about the empirical assessment of outcomes of voluntary IFRS adoption, but his critique may be generalised for the mandatory adoption, too.

Coherence of empirically uncovered effects of voluntary IFRS adoption is mainly restricted by self-selection bias. Voluntary adopters have strong incentives to communicate with public in a transparent manner, including the extended voluntary disclosures and timely recognition of bad news. The transparency is in turn appreciated by investors. The achievement of benefits (lower cost of capital, foreign analysts' following; etc.) by companies, which made a credible voluntary

[§] Their offering values were rather lower than IPOs on EU-15 markets; therefore WSE is ranked 4 and 5 by the money value of IPOs.

commitment to adopt high quality standards, such as IFRS, is then of endogenous nature and self-explaining. Research design must therefore incorporate certain dummy variables and employ other procedures in order to control over this self-selection bias and to get robust results. On the other hand, companies' reporting incentives are not a cardinal problem, when analysing the consequences of mandatory IFRS adoption, as all affected companies had to skip to a new reporting system compulsory and at the same time. The empirical research compares the selected characteristic in pre- and post-adoption era after controlling for concurrent events to avoid the distortion of results because of "seeming correlation". In order to avoid this distortion and/or to get more robust results, a comparative sample of non-adopting countries is used to control for other factors than the change in financial reporting standards (e.g. to control for the development of enforcement regime).

However, the inclusion of non-adopting countries as control group does not solve the main problem with the selection of affected companies in adopting countries. The transition from domestic GAAP to IFRS did not happen overnight. A relatively long transitional period (from the decision in 2002 to the effective start in 2005) provided companies with the opportunities to estimate the impacts of IFRS adoption properly and to accommodate to the changeover. Some entities decided to stay publicly traded; others selected to exit capital markets, as going private could have been the only vital solutions how to avoid expected net costs to comply with new reporting standards.

Although economically rational on individual level, this kind of behaviour can have troublesome implication for research, provided that delisting is undergone by significant number of companies. Companies, which opt for delisting during the transition period, did not become mandatory adopters. Consequently, they cannot be included in the sample of companies, for which the impact from mandatory adoption was investigated. Let us suppose that a research study detected that IFRS adoption had reduced the cost of capital of companies listed on particular stock exchange.

Even if the sample captured the whole population of companies listed on that exchange in the post-adoption period, the empirical results cannot be generalised by arguing that IFRS adoption has enhanced the capital market characteristics. If companies decided to go private during the transitional period because of expected negative impact from the IFRS adoption on cost of capital (e.g. lower profits may violate debt covenants, decrease dividends, etc.), then their omission in sample produces partially incorrect findings about the real effects of IFRS adoption. This remark is relevant especially for countries clustered in Group C (including Germany, Italy) and Group D.

However, there are important limitations to our study. Firstly, it deals with aggregate figures on net increase/decrease in number of listed companies. A proper analysis would require a further break-down on new listings and delistings, which should help in identifying the individual incentives for entering/exiting the capital markets before and after IFRS adoption. Splitting-up is also necessary for resolving the methodological issue described above. Secondly, our elementary analysis assumed other factors (e.g. economic growth; strength of enforcement regime) stable over the whole period, which is not true. The influence of other factors than accounting standards on capital markets should be addressed in future research. Thirdly, more representative results require the comparison of progression in transition countries with the development in EU-15 countries. Furthermore, the specifics of each country regulatory system (including the distinction of strength and credibility of reporting incentives among countries) shall be incorporated in the analysis. Finally, the cross-country impacts of IFRS adoption on the capital market size shall be measured more exactly, using the common econometric approaches (incl. regression model), both on individual and aggregate level. Robust findings would require scrutinising other variables and their relevance (e.g. market capitalisation; trading volumes; etc.).

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Summary

From 2005, the EU listed companies are obliged to prepare their consolidated financial statements in conformity with IFRS, which are viewed as high-quality financial standards (Leuz, 2003). To comply with the increased disclosure requirements, companies have to incur significant costs.

However, the benefits from harmonised financial reporting are available only to those entities, which have serious incentives to report transparently (Daske et al., 2013). The benefits and costs following the changeover to IFRS are therefore neither unfolded equally across companies, nor countries. Empirical research (e.g. Lee et al., 2008; Christensen et al., 2013) reveals that the shortcomings in institutional setting may close off all potential benefits from harmonised accounting, which is pertinent mainly for the transition countries.

The aim of this paper is to identify absolute and relative winners and losers among the new EU member states in terms of the progression of their capital market. The particular focus is put on the capital market size measured by a simple criterion "the number of listed companies" and its changes in transitional and post-adoption period. The splitting of time-series into two subsets enables to eliminate the influence of different reporting incentives from the effects of change in reporting regime. As an unintended result, the paper's empirical findings raise some doubts about the appropriateness of certain research designs for assessing the economic consequences of mandatory IFRS adoption.

Keywords: mandatory IFRS adoption; capital market development; transition economies.

JEL classification: M41, F21, G15

UD classification: 336.76 (061.1)

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ANALYSIS OF INNOVATIVE SUSTAINABILITY OF SOCIO-ECONOMIC SYSTEMS

Mariia Saiensus*

1. Introduction

In conditions of uncertainty and extreme variability of socio-economic processes taking place nowadays in Ukraine, considerable attention should be given to the evaluation strategy for the development and management of innovative sustainability.

"The problem of the domestic economy recovering from the state of socio-economic stagnation towards sustainable economic development is of vital importance. It is the solution to this problem that ensures the overcoming of backwardness in socio-economic development of the society..." [1, p.4–21]. Research of the sustainability of socio-economic system as a component of the development strategy has a number of features and is characterized by interconnectedness and diversity of the processes that occur in the system.

Stability is a property of the system to save values of all the parameters that characterize the ability to perform required functions in specified regimes and conditions of use within the established limits [2]. Such understanding of the stability is based on the theory of complex systems management.

In the applied value in relation to the socio-economic system it is bound with the properties of the elements of the socio-economic system that determine its economic ability to perform specified functions within the specified limits in the changing internal and external environment.

"The stability of the socio-economic system" is the ability to perform specified production and economic functions and preserve their basic characteristics in certain temporal boundaries in conditions of the environmental instability.

Innovative activities have a twofold effect on the system which creates a new quality in the process of innovation and has a disturbing effect on its functioning. The main system elements of innovation sphere of science are: "sector of high technologies and science-intensive products, the education system in combination with the labour market, the business sector, various sources of innovation financing, infrastructure (innovation and technology centers, technology transfer centers, technology parks, business incubators, venture funds, special economic zones of technical innovation type, etc.)" [3, p.333–338].

The concept of "innovative sustainability" of socio-economic system characterizes the ability of the system to serve as a positive innovative effect for it while maintaining sensitivity to innovation and innovative activity in the conditions of occurrence of disturbing actions. Innovative resistance is directly linked with the vitality of the system. Until recently the concept of viability was used mainly in relation to the technical system.

With regard to productive enterprises the vitality is interpreted as the ability of socio-economic systems to perform their basic functions despite the damage caused by

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disturbing actions (even with an allowable loss of quality of their performance) and further to implement the optimal recovery strategy taking into account emerging restriction [4]. Thus, it is necessary to bear in mind the following ideas of the sustainability of socio-economic systems.

First, the vitality should be considered as an intrinsic property of the system, which it has, regardless of operating conditions, that is shown at the revolting action, but under normal circumstances it remains "invisible".

Second, the vitality is manifested in the fact that the system keeps not all the functions it must perform during normal operation, but only the basic functions followed by possible decline in the quality of their performance and reduces resistance.

Third, the system must have the property of gradual degradation with increasing severity of adverse effects, and this process can be suspended by administrative influence.

Fourth, in complex integrated systems the vitality displays the ability of the system to prevent cascade development of the revolting influence in it using control system tools. Thus, the change in the state of vitality is determined by innovation activity risk management effectiveness.

The concept of sustainability can be divided into structural and functional components. If the study of the structural component of sustainability is largely reduced to the identification of vulnerabilities in the system topology and determination of their impact on the integrity of the system (largely inherent in the study of technical systems), the study of functional component of sustainability is reduced to determining the system's ability to solve its tasks in terms of varying possibilities of its elements (it is mainly related to systems that have behavioral, depending on a variety of external and internal factors).

The level of sustainability greatly affects the quality of introduced innovative projects, their respective capacities of socio-economic system, especially in the management of innovation risks. This level in its turn is the basis for changes of innovation stability of economic systems.

The risk analysis of the project which is the cornerstone of management of vitality of social economic system identifies the main sources of change of innovation stability [5, p.126]. The persistence of the socio-economic system that determines the effective management of innovative industrial risks, is the main tool to enhance its innovative sustainability. In such a case innovative sustainability of socio-economic systems is complex characteristic of its ability to innovate through the selection and implementation of safe innovative projects to improve the sustainability of the system in an unstable environment.

2. System-synergetic approach to the research of innovative sustainability of socio-economic system

Innovative sustainability of socio-economic system, being a complex property has a double nature: the element of sustainability of socio-economic systems; the subsystem innovation management.

The quality characteristic of these systems is the ability to perform specified functions of household production (as a result of effective innovation implementation) and preserve their basic characteristics (sensitivity of innovation and innovation activity). The significance of the quality of socio-economic systems is increasing in terms of uneven development and innovation and requires the development of new approaches to methodology of innovation stability management.

The analysis of methodological approaches to the study of management (systemic, structural, synergistic) showed that each of them discloses only some aspects of the problem, so it seems necessary to use the synthesis of these approaches. The principles of the proposed methodology for managing innovative sustainability of socio-economic systems are based on systematic, integration, dynamics, continuity, adaptability, constructiveness, synergism.

The duality of the system features of innovative sustainability of socio-economic systems has led to the need for a systematic approach in the formation of integrated management in conditions of revolving influences. As a result, it was determined that the management should be focused not only on the periods of innovative sustainability change in the implementation of innovations.

Not less important is the use of administrative measures at the stage of development and/or selection of the innovative project, the beginning of its implementation. Such measures increase the adaptive control system, because they allow to determine in advance the possible sources of decrease in stability and to develop mechanisms of adaptation through the creation of additional reserves. It increases the effectiveness of the implemented measures and makes management system integrated.

Analysis of the system of innovative sustainability management of socio-economic systems from the view point of a synergistic approach perspective showed that the control system is affected by the external environment and therefore need continuous change of the innovation stability management system. For this purpose the system should contain elements of self-development, which using administrative complex increases the flexibility of the system.

These elements are put in the system due to its belonging to an innovative activity management system, but their implementation is possible only in the case of an effective, integrated management of economic systems sustainability. Therefore the formation of innovative management of socio-economic systems sustainability is based on the development of alternatives which meet the requirements of the overall impact on innovative industrial risk at various environmental changes in the management of functional and structural sustainability.

3. Methods of socio-economic stability and sustainability assessment and a set of sustainability indicators

This methodology contains elements of assessment not only the current level of stability, but also the instruments to determine the quality of the changes to correct the direction of management. It is based on the definition of indicators in three areas: financial vitality; stability level; the willingness of staff to liquidate emergencies and their consequences. Financial ability (willingness) of the object to eliminate the consequences (financial vitality of the object) and to recover economic activity at the expense of their own and borrowed funds. It is defined with the help of a set of indicators which are calculated using the following formulas:

$$Vfo = Fo / Dfe, \quad (1)$$

where Vfo – the object financial vitality, which is realized at their own expense;

Fo – value of own funds mobilized by the enterprise in case of emergencies;

Dfe – expected maximum value of the total damage.

$$Vfl = \Sigma (Fl) / Dfe, \quad (2)$$

where Vfl – the ability of object to attract the required value of borrowed funds fast;

Fl – value of borrowed funds, which may involve the company in case of emergencies (H) with the cost of capital;

Dfe – expected maximum value of the total damage resulting from the implementation of emergency.

$$Av = Fo' / (1- Fo'), \quad (3)$$

where Av – autonomy of organization stability (the ratio of debt to equity required for disaster management (H));

Fo '– the share of own funds which are mobilized in case of emergencies;

(1- Fo ') – share of borrowed funds which the company has to use in case of emergencies;

Level of stability characterizing the quality management system (its efficiency, preventive and developmental rate).

$$Ev = \Delta Dfe / (1-\Delta Ca), \quad (4)$$

where Ev – economic efficiency of stability changing level;

ΔCa – the amount of changing costs for the disasters management compared with the initial value;

Δ Dfe – the relative amount of expected maximum total loss changes in case of having happened emergency as a result of changes in the value of preventing accidents cost.

$$Evr = \Delta Dfre / (1-\Delta Car), \quad (5)$$

where Evr – the quality level of stability changes;

ΔCar – the relative change in the costs value in preventing emergency situations to happen as compared to the initial value;

Δ Dfre – relative change in the value of the expected total loss caused by having happened emergency situations and as a result of changes in preventing accidents costs.

$$Sa = Qv\ t / Qv\ b, \quad (6)$$

where Sa – the rate of stability level growth over time;

Qv t – value of stability quality in the reporting period;

Qv b – value of stability quality in the base period.

$$Qv = \Delta Dfp / \Delta Cp, \quad (7)$$

where Qv – quality of stability;

ΔCp – the change in the cost of emergency prevention;

Δ Dfp – the change in the expected full damage arising in cases of emergency, as a result of increasing the number of preventive measures.

The willingness of staff to liquidate emergency situations and their consequences

$$Rp = Nse / Ne, \quad (8)$$

where Rp – personnel training to liquidate the consequences;

Nse – the number of employees successfully trained in industrial safety, people;

Ns – the total number of employees that are required to pass attestation of industrial safety, people.

$$Rk = Nse / Ne, \quad (9)$$

where Rk – the ability of staff to the elimination of the consequences;

Nn – number of employees, people who are trained in disaster consequences elimination;

Na – the total number of staff, people required for dealing with emergencies at particular premises.

$$Ra = SEm / SEmr, \quad (10)$$

where Ra – the readiness of staff to emergency situations ocurrance;

SEm – the number of employees involved in the urgent liquidation of emergencies consequences;

SEmr – the total number of people involved in the disaster consequences liquidation.

Within the framework of the given technique, based on the developed expertise method limit values and the weight of each of the indicators (Tab. 1).

Tab. 1. Limit values of stability levels [6, p.342–347]

Level of stability	Value range	Description
Critical	Less 0,4	The system is not ready for an emergency, in the event of disruption of the process of life will have to restore the system using external tools and resources (state), an innovative critical resistance
Moderate	0,4–0,6	The system is ready for an emergency, but if the violation will have consequences within more than 50% of the most dangerous events, then the vital functions of the system will have to be restored using external tools and resources (state), an innovative low resistance
Normal	0,6–0,8	The system is ready for an emergency, but only if the violation will have consequences within the most dangerous predicted events, the vital functions of the system will be restored without attracting external influence, innovation average resistance
Steady	0,8–1,4	The system is ready for an emergency, and it transforms at the rate of the most dangerous scenarios changes, while maintaining the capacity for survival with changes in the external environment, innovative optimal stability

The table shows that the optimal value of innovative sustainability will match the last interval level of socio-economic systems stability (limit value corresponds to the reaching of adequate levels of all groups of indicators), further increase of stability is possible, but it leads to an increase of marginal costs, so economically it is unfeasible.

4. Conclusion

Thus, this research allows to make a conclusion that the theoretical and methodological problems of innovative sustainability management of socio-economic systems by increasing stability have practical importance for the solution of important national economic problems.

The importance of this argument is confirmed by the fact that in the beginning of XXI century an interdependence of the different parts of the world economy, dominated by innovation and knowledge-intensive activity is increasing. Innovation of production became the main factor of competitiveness [7, p.109–110].

So, through the effective management of innovation, socio-economic systems affect the level of self-sustainability, increasing it in the safe implementation of production capacities modernization in the course of innovative development. It increases the level of socio-economic system innovation sustainability through the susceptibility of the system to innovations and innovative activity. It also allows to achieve a positive growth effect from innovation implementation and to improve the competitiveness of socio-economic systems of higher level.

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Summary

The article analyses the research on innovation sustainability of the socio-economic system as a component of development strategy. When choosing a strategy for the development, the evaluation of innovative sustainability is of basic importance. One of the components of the overall sustainability of the system is an innovative sustainability. System support for the sustainable development strategy implementation should be based on achieving a combination of life cycle phases, interchangeability and intensification of system resources, the parameters of which are defined within the framework of innovative concepts. The article offers the analysis of approaches to the definition of the notion of innovation stability diagnostics and the conclusion is made about the necessity of further synthesis of enterprise development strategy and indicators of sustainability.

Keywords: innovation, management, strategy development, innovation sustainability.

JEL classification: M100

UD classification: 332.1

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INFORMATION PROVISION MANAGEMENT OF STREAM PROCESSES IN PHARMACEUTICAL INDUSTRY

R.V. Sahaidak-Nikitiuk, N.V. Demchenko, E.V. Kozyreva*

1. Introduction

World experience of developed countries has proved that the use of logistics management significantly increases the competitiveness of the industry, reducing the cost of goods movement, promotes the rational use of resources, etc. But the logistics activities trend directly dependent on condition and character of changes occurring in the economy, state policy, improved regulatory and legal framework and timeliness business entities provision of all necessary reliable information.

Priority direction of the pharmaceutical industry optimization according to the Concept of Pharmaceutical Sector of Health of Ukraine for 2011–2020 is to improve systems of information support in sale and consumption of medicines [1].

Complete and timely provision of pharmaceutical businesses stakeholders (PhIS) with necessary information concerning streaming processes is a factor of the optimal mesologistic pharmaceutical system functioning (mesoLPhS), and decision-making by management bodies at different levels regarding support and strategic management of PhIS activity required full volume of accurate and timely information, while these participants also act as sources of necessary information for implementation of the PhIS activities.

2. Analysis of the latest research

Nowadays, the Ministry of Health of Ukraine (MHU) has a unified information system, which includes public registries of drugs (with all the characteristics: name, dosage forms, prescription, release forms, prices (wholesale, retail, customs), expiration dates, etc.), medical equipment and medical products (MP) dangerous factors of chemical and biological origin, disinfectants, foods for special dietary supplements, functional foods and dietary additives; National List of Essential drugs and medicinal goods; interagency database, etc. [2].

Databases development of medicines was studied by such scientists as O. P. Shmatenko, B. P. Hromovyk, L. P. Smirnova, M. G. Chigrinova, M. V. Slabiy, A. I. Boiko, O. V. Paramosh etc. Thus, L. P. Smirnova proposed experimental modeling of a computer system on an example of some antispasmodic and hypotensive medicines [3, p.46]. M. G. Chigrinova considered the automated information retrieval system on an example of neuropsychiatric patients [3, p.47]. M. V. Slabiy developed approaches to modeling information support expert systems to control the correctness prescription and dispensing of medicines from pharmacies [4, p.25]. A. I. Boyko processed database structure for optimization of consumption medicines for diabetes [5, p.77]. A. V. Paramosh proposed computer information system of circulation of psychotropic medicines in pharmacies with the possibility of forming computer reports [6, p.15]. O. B. Boretska developed a computer system to support clinical decision-making based on MYSQL [7, p.180]. Foreign researchers are paying attention to the information aspects of hospitals provision of medicines [8, p.2108; 9, p.72].

Due to a large number of information users in the pharmaceutical industry there is a need to build modern logistics information systems (LIS), including at the regional level, which will provide necessary information to all mesoLPhS participants and pharmaceutical logistic chains (PhLC) and

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provide the Ministry of Health of Ukraine with the necessary information.

Pharmaceutical businesses functioning is related to the formation and transmission of large amounts of information that require effective management and continuous improvement of information provision order to timely satisfy the needs of the population in quality medicines at affordable prices. The purpose of the paper is the optimization of information transfer process to pharmaceutical businesses stakeholders according to the traditional methods of pharmaceutical informatics.

3. Presentation of the basic material

Logistics Information System in Pharmacy is an interactive structure, including staff, equipment and procedures (technologies) combined in information flows, used by logistic management for planning, regulation, monitoring and analysis of pharmaceutical logistics system functioning (LPhS). It consists of interrelated subsystems that implement information and computer software of all logistics management functions and communication with the external environment.

Suppliers and consumers of information are PhIS, authorities of the Ministry of Health of Ukraine, Ministry of Infrastructure of Ukraine, the Ministry of Regional Development, Construction and Housing and Communal Services of Ukraine, Ministry of Finance of Ukraine, Ministry of Foreign Affairs of Ukraine, Ministry of Social Policy of Ukraine, the Ministry of Ecology and Natural Resources of Ukraine, Ministry of Economic Development and Trade of Ukraine, Ministry of Finance of Ukraine, State Statistics Service of Ukraine, State Service of Ukraine on Drug Control, the State sanitary and epidemiological Service of Ukraine, State Service of Ukraine on Medicinal Products, State Administration of Ukraine for Regulatory policy and Entrepreneurship Development, the State Service for Financial Monitoring of Ukraine, State Service of export Control of Ukraine, regional and local authorities, banking, brokerage, transportation, storage, insurance and other organizations, sector of higher education institutions (HEIs) and research institutes. The structure of information flows in the goods movement of medications and their interrelation is shown in Fig. 1.

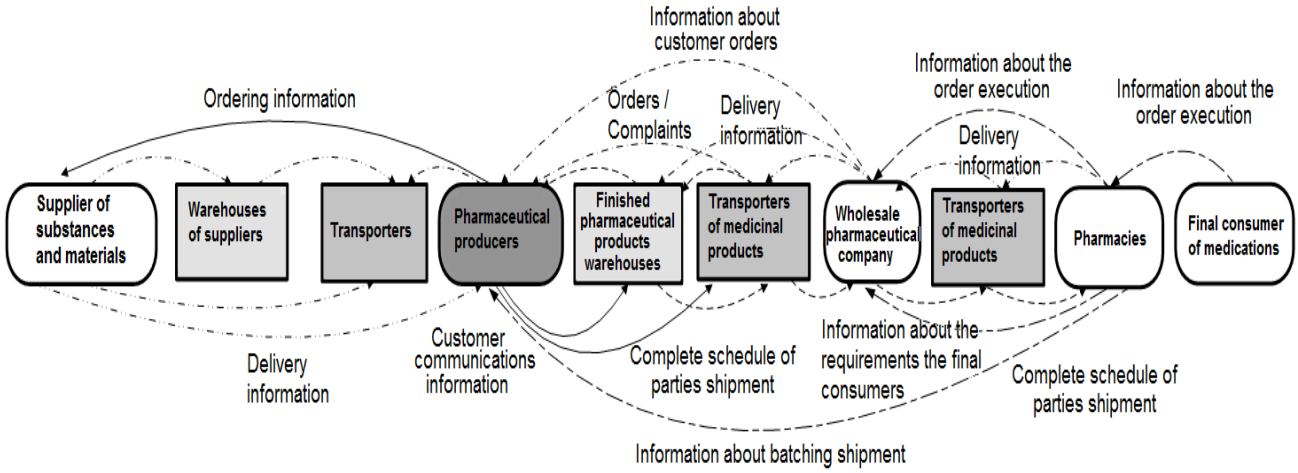

Fig. 1. Information flows in pharmaceutical logistics chain

communication with suppliers; communication with manufacturers; communication with warehouses; communication with transporters; communication with consumers; communication with final consumers

The variety of information flows associated with the development, manufacture, promotion and sale of medicines and management of pharmaceutical waste necessitates the creation of a common information space in the region that extends the capabilities of operational efficiency and solve industry challenges, interconnected with international and state programs and projects (Fig. 2).

Logistics Information Center is intended to provide service to obtain operational information,

continuous monitoring of the status and position of objects LPhS and support information exchange between stakeholders in the transportation of goods, its preservation etc. The creation of a single regional information space requires a coordination of work on creation and development of information streaming processes systems, participants and mesoLPhS their information compatibility and interoperability with national and international projects and programs in logistics, the interaction with regional informatization programs relative to information supply authorities on the status and functioning of mesoLPhS participants, infrastructure improvements, both of mesoLPhS and single PhIS; improve the quality and volume of information; provide the required protection level of information, the reliability of its storage and treatment access. It provides LPhS workers, consumers of drugs, substances and materials suppliers, partners, scientific and pedagogical workers and governments with objective, operative, complete, reasonable, evidential and available information aimed at quality medical services for the population.

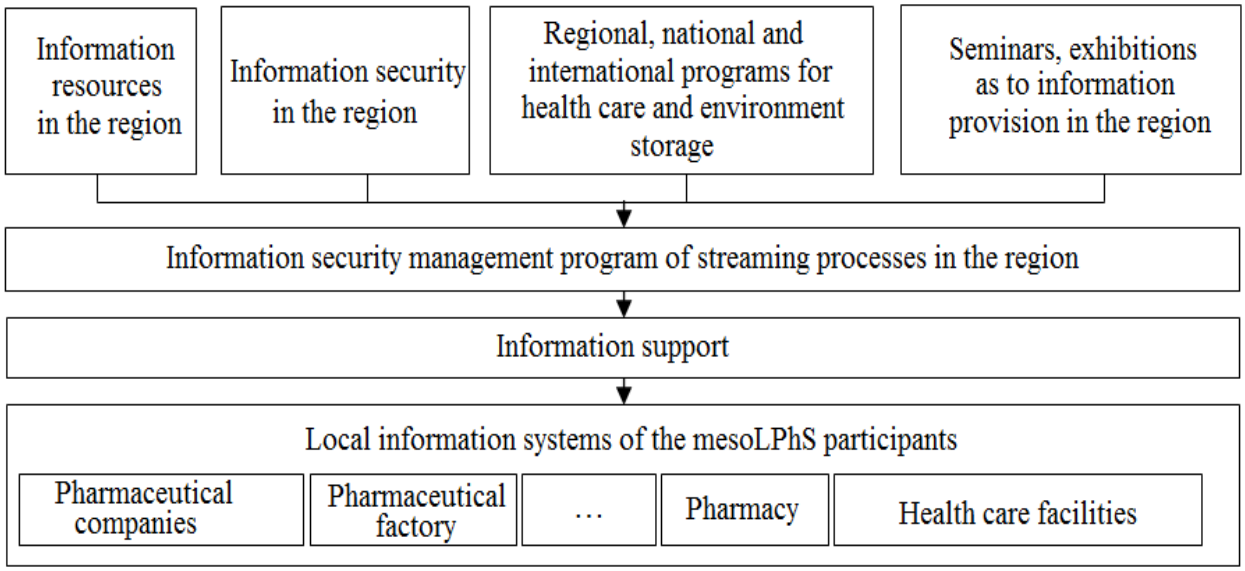

Fig. 2. Conceptual forming diagram of informative support management of streaming processes in the region

Regional logistics information center should also contain a database of suppliers of substances and materials; consumers of pharmaceutical products (health care institutions, veterinary pharmacy, veterinary hospitals); PhIS; specialized transportation, insurance, brokerage, banking and financial institutions; institutions of pharmaceutical and medical wastes; pharmaceutical, medical, educational, scientific and logistical staff, etc. The information will flow from the center to all mesoLPhS stakeholders. The structure of the LIS infological model is shown in Fig. 3.

Regional logistics information center shall provide the following services:

1) in access services regulatory and of reference information (access to documents regulating the activities of participants pharmaceutical regional clusters, cold chains, PhIS, reference products, packaging, vehicles, geographic information, etc.);

2) in order management (order service, selection and calculation of possible routes, complex customs clearance services, custom statistical and analytical information);

3) in management of resources (services for analysis and resource costs carriers, warehouses and other mesoLPhS stakeholders;

4) in logistics processes management (a lot of systems support logistics processes in remote access);

5) communication (providing information communication between participants logistic processes in different standards);

6) consulting (services for the development of regulations, procedures and technologies, consulting

services, training services, etc.);

7) of information and referral services on request;

8) in control the passage of logistics processes (tracking freight forwarder under existing schema (RFID), etc.);

9) expert and analytical (assessment of logistics activities in the region; mathematical and statistical data analysis of logistics development in the region, predicting a possible course of events and changes in the environment, forecasting possible consequences of management decisions, providing recommendations for achieving the desired results of logistic activities in the region, finding compromises between projects in logistic area and other local development projects);

10) in training personnel.

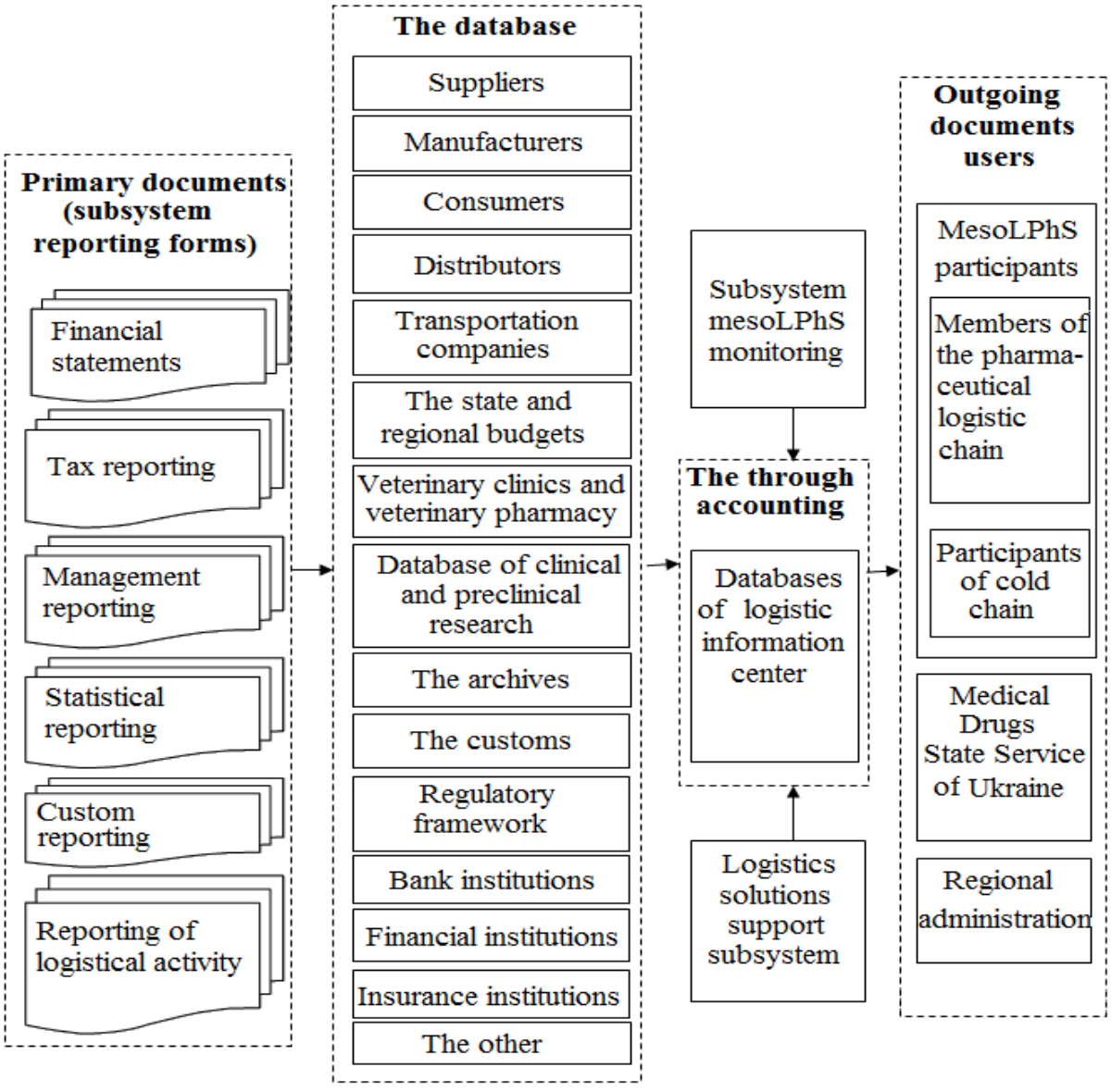

Fig. 3. Infological model LIS on the mesolevel

Advantages of mesoLIS creation are continuous information monitoring of mesoLPhS participants logistics activities in real time; operative provision of information; improving the efficiency of goods delivery by vehicles and cargo delivered through satellite communication and navigation systems; facilitation of customs procedures; providing information and analytical sustention in logistics operations, including operations related to disposal of waste.

4. Conclusions

The necessity of improving information provision management of streaming processes in the pharmaceutical mesologistic system is defined. Modern information systems, which operate in the Ministry of Health of Ukraine, are analyzed. The essence of logistics information system, its structure and composition, suppliers and users, contacts with the environment, are defined in the article. The conceptual scheme of information support formation of management streaming processes in the region is suggested.

The infological model of logistic information system at the meso level is developed. The creation a single regional information space in the region and logistics information center, which is intended to provide services to obtain operational information, continuous monitoring of the status and position of mesologistic pharmaceutical system objects, is substantiated. The set of information services that provides a single information center, is defined.

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Summary

The article deals with the relevance of management and improving information provision in pharmaceutical industry. Establishment of a regional logistics information center is proposed. The structure infological model of the logistics information system at the meso level for the pharmacy conditions is substantiated.

Keywords: management; information provision; regional logistics information center.

JEL classification: L650

UD classification: 615.1:65:658.7

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THE IMPACT OF ACCOUNTING INFORMATION ON DECISION MAKING PROCESS

Dr. Nissrat Sabir Sheikha Khoshnaw*

1. Introduction

Accounting generally involves the process of identifying, measuring, and communicating economic information to permit informed judgments and decisions of users of the information.

In other words, accounting is concerned with providing information, which will help decision makers to make decisions. To enhance creditability and utility of the information, the decision making process, established concepts, principles, standard and legal requirements are strictly followed in order to translate physical facts into money values and ensures that all types of report are integrated and prepared on consistent basis.

The information provided by financial statement, cash flow, variance analysis, managerial costing in planning, organizing, decision-making and control are invaluable to achieve objectives of the various interest groups. In spite of all the arrays of accounting tools at our disposal, organizations still wobble, trouble down the drain.

It is against the background that the researchers delved into the study of the impact of accounting information on decision making process of organizations. To this end, the relevance, time liners, accuracy, conciseness, and clarity of the information and modes of presentations of the users were examined.

It is the objective of the researcher to highlight more vividly the invaluable importance of all these accounting tools and techniques in the decision-making process organization to better equip users of the job ahead. These researchers believe it would help significantly in reviewing our economy.

However, during the course of the research, the researcher will try to discover that the proper and enough accounting information should be generated and applied substantially in organization studied.

The researcher tried to discover that the problems of the economy lie elsewhere rather than in sufficient generation and application of accounting information in decision making process in organizations.

Therefore, the project was divided into five sections as indicated in the table of contents.

Due to the adverse economic conditions prevailing in the Kurdistan region and the country, many businesses have chased shops and even financial institutions are being declared distressed at alarming rate. Businesses that are yet to be submerged or that want to stay afloat, employ all kinds of strategies. Some increase prices, adopt promotional tools, engage in aggressive marketing etc. whereas, others go for an odd combination of activities and even subterranean one to survive.

Any business or individual that wants to survive must make the right decisions. The era of mile of thumb is gone, employing it is a sure way to fail absurdly.

The price of any conceivable item from bread to book not to mention petrol has been soaring in geometric progression over the years. The economy is truly in dire straits. These compounds and complicates intricately are the problems of organizations vis-a vis-effective planning and decision making processes, other factors such as stagflation, taxation, economic and political in research study. It is the intention of the researcher to concentrate more on financial accounting, cost

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accounting as well as management accounting. Nonetheless, recourse should be made to the other branches of accounting whenever there is a need to do so. 'Financial accounting is the part of accounting which covers the classification and recording of actual transactions of an entity in monetary terms in accordance with established concepts, principles, accounting standards and legal requirements. It presents in as accurate view as possible the effect of those transactions over a period of time and at the end of time." Over time, it evolved and metamorphosed into a very complex web of integrated financial information system which modern organizations cannot do without.

It presents a broader, more overall view of the organization with primary emphasis upon classification according to type of transactions rather than cost and management accounting emphasis on functions, activities, products and processes and internal planning and control.

Cost accounting and management accounting are very much intrinsically interwoven that the difference between the two is superficial, as that definition of management accounting will substitute the other. Management Accounting is the provision of information required by management for such purposes as:

1) Formulation of policies.
2) Planning and controlling the activities of the enterprise.
3) Decision taking on alternative courses of action.
4) Disclosure to those external to the entity (shareholders and others).
5) Disclosure to employees.
6) Safe guarding assets.

The above involve participation in management to ensure that there is effective:

1) Formation of plans to meet objectives (long term planning).
2) Formation of short term operational plans (budgeting profit planning).
3) Recording of actual transactions financial cost accounting.
4) Corrective actions to bring future actual transactions into line (Financial control).
5) Obtaining and controlling (finance treasure ship).
6) Reviewing and reporting on systems and operations internal audit and management audit.

Cost accounting as a subset of management accounting is aptly buttressed by Lucey T. in his book "costing" where he defined cost accounting as that part of management accounting which establishes budget and standard cost and actual cost operations, processes, department or products and the analysis of variance, profitability or social use of fund.

2. Statement of the problem

Kurdistan Region is in a very distinct economic year. Some aspect of our economy are experiencing unprecedented hyperinflation whereas other aspects are worst by devastating depression, for years now, the emphasis is on the restructuring of our economy. The international monetary fund (IMF) prescribed some better-internal restructure measures (without regards to our socio economic (background) which were applied. The cream of our economists who can dictate economy is still running heedlessly into the words culminating in failure of business and pauperization of a great majority of Kurdistan Region. Under the present economic dispensation very different to stop a float vis-à-vis those that are yet to be submerged.

In times like this, judicious use of relevant information and techniques in decision-making processes of organizations, individuals and corporate entities are without questions. Application of accounting information makes the difference between failed banks, enterprises, corporate bodies

etc. and successful ones. In all cases, the accountants have collected, analyzed interpreted, presented and communicated the information for the use of interested parties. It remains the adoption, application and implementation of that information for the benefit of the organization. If these were being done as and when due, then the failures in the business sector and even domestic government would not have been. So the problem is, if interested users are actually aware of this various accounting information and if they apply it in their production or investment decision making process; can decision based on accounting information actually raise efficiency level via cost minimization and wealth maximization?

In summary, the problems encountered in course of this research are:

1) Material constraints occasioned by exorbitant and rising cost.
2) Financial constraints.
3) Inaccessibility of data due to unwillingness on the part of the company to give them out.
4) Transportation problem.
5) Time constraints.

3. Purpose of the study

Gross inefficiency and non-application of sound professional principles have been known to be a serious factor contributing to the failure of businesses.

Business and economic investors are no more Father Christmas. They will invest only if they are connected or convinced that their return on anticipated investment is high, guaranteed and outweights all risks including financial costs. The only way to assure them of this is through efficient production via cost minimization by plugging leakages thereby maximizing the efficiency of operations.

Apart from technical know-how and capital, efficient management of information is paramount if the organization is to achieve its objectives.

The objectives of the study are therefore:

– To determine whether information generated by the account department are effectively applied in the production and decisions of the organization.
– To know the extent to which this information fulfills the basic roles of cost minimization, proper allocation of scarce resources and improvement in the period efficiency.
– To determine whether there are problems in generating and utilizing other information necessary for production decision and to suggest possible solutions to the problems.

4. Scope and delimination of the study

This research study cannot possibly treat the aspect and kinds of accounting information because the field is simply too wide. So only those relevant to the research study were dealt with as per need-ratio analysis, cost-volume-profit analysis, absorption and margin, costing, the contribution margin; standard costing and variance analysis, linear programming.

The availability of correct and update data is not easy. Even when available, one still encounters wholly unnecessary bottlenecks due to our socio-cultural background vis-à-vis disclosure of information and bureaucracy. So this constituted an impediment to the research work.

Financial and time constraints were seriously encountered by the researcher.

Computational procedures of the various accounting information or fools are outside the scope of the work. However, those deemed necessary might be treated.

It is impossible to cover all the companies, firms, and other business outfits in Kurdistan Region as a sample of two companies in Enugu state were studied and inferences trade from these.

5. Research questions

They are as follows:

1) How is information generated by the accounts department effectively applied in the production and decisions of the organization?
2) Does this information fulfill the basic roles of cost minimization, proper allocation of scares resources and improvement in the production efficiency.
3) Is there any problem in generating and utilizing the information necessary for production decision and suggesting solutions for the problems?

6. Statement of hypothesis

1) HO: Null-Hypothesis
2) HI: Alternative Hypothesis

Number One:

Ho: The accounting information generated in manufacturing firms is not utilized effectively in production decisions.

HI: The accounting information in manufacturing firms fulfills the basic roles of proper resources allocation cost minimization and production efficiency in production decision making.

7. Significance of the study

This study will try to shed light and illustrate the high interest rates, massive depreciation of the local currency (Dinar), non-utilization of installed capacity of manufacturing plants, of inevitable funds occasioned by low capital formation, political instability, stupendous financial irresponsibility, devastating inflation, incredible deflation, high cost of living, high unemployment rate, and inappropriate taxation policy are factors that impinge adversely on the operations of manufacturing organization on the entire economy.

This research study will help to maximize the beneficial impact of accounting information in the decision-making processes of an organization. This boosts the profitability of the organization as well as ensuring its continuity as a business entity. It will help in the efficient allocation of scares resources that have alternative uses as well as increase productivity thereby up lifting the standard of living.

In fact all interested groups like shareholders, employee, investors, creditors, government, etc will benefit immensely.

8. Summary of finding conclusion and recommendations

From the sample of 200, total respondents studied 180 representing 95% are in the managerial framework. The composition is as follows:

Production	20 respondents	(11.11%, 40)
Personnel	5 respondents	(2.78%, 40)
Control	2 respondents	(1.11%, 4)
Marketing	7 respondents	(2.89%, 14)
Accounting/costing	40 respondents	(22.22%, 14)
Data processing	15 respondents	(8.33%, 30)
Maintenance/stores	20 respondents	(11.11%, 40)
Internal Audit	71 respondents	(39.44%, 142).

This group was used to collect the necessary information from questions. 1 to 17 since they are the relevant group for this part of the research: based on their response in question 13 and 14 the two hypothesis stated in chapter one were tested.

Based on the two sets of questions issued it was found out that, all the respondents were asked the question.

Do you use accounting information in your decision-making visa-visa the company? Answer obtained from question 16 showed that they rely on profit and loss, balance sheet, funds flow statement, value added statement and auditors report to make their decisions regarding owning holding shares in the company, working in.

Accounting system and decision making process in ANAMCO was studied to determine; whether information generated by the accountants is effectively applied in production and decision of the organization. Based on the above purpose, the researcher constructed many questions which elicited information analyzed.

The result of many analyses/findings were discussed as follows. The entire 180 respondents maintained that accounting practices were adopted in the organization for decision taking. More than 90% of the respondents agreed that accounting information raises efficiency of the management decision taking.

Moreover, 85% maintained that accounting information was relevant in the organization on the type of system adopted, 40% maintained that invoice and receipts were kept 60% maintained that financial cost and auditing statement of accounting were in use. The majority of the respondents maintained that accounting information helps in proper allocation of resources.

The result of the hypothesis, which state that the result of accounting information system obtained from the company was not utilized as follows: Using 7c2 at 5% level of significance and as 1 with 7c2 value as 13.42 and calculated = 180, then 13.42 < 180. Thus Ho is rejected and H1 accepted because accounting information in manufacturing industry (ANAMMCO) fulfills basic roles of proper allocation of resources cost minimization and production efficiency companies were not available. Consequently, the research was limited to ANAMMCO.

Accounting information is so essential to the users development especially when it extends to decisions making. In view of the above, the following recommendations are deemed necessary:

1. Efforts should be made at employing professional staff with transparent honesty, and due punishment should be given to fraudulent staff.
2. Seminar/ Training should be given to staff of accounting department to enable them specialize more in the field of accounting.
3. The shareholder, investors and other users should be meeting at interval so as to assist the management in the achievement of their organizational goals.
4. Use of modern devices like computers should be introduced to the staff to enhance efficiency and effectiveness.
5. Special panel or internal auditors should be introduced to ensure the accuracy of the accounting information so that the users should not be deceived.

Finally, accounting information should be seen as an important tool in decision making process of a company and more encouragement should be given to staff in the performance of their duties. This will enhance efficiency and effectiveness of the accounting information.

The objectives of the firms differ from one organization to another. Based on the statement of the problem stated in chapter one, the researcher concludes that application of accounting information makes the differences between failed banks, enterprise and corporate bodies and successful ones. In t5his difficult economic mire adoption and implementation of accounting

information is very necessary. If this is applied and when due, the multifarious failure in business sectors and government sectors should stop.

Accounting information on decision-making process helps in raising of efficiency. It helps in proper allocation of resources such as material, money, and machinery. Accounting information generated on a company utilized effectively in production in a company.

In conclusion, the failure of firms may not be due to non-generation but the problem of the economy lies on the effectiveness, efficiency and judicious utilization of accounting information generated in an organization. Some Kurdistan Region firms make extension use of accounting information in their business decision. The study of accounting information in manufacturing industry (ANANMMCO) has many implications:

First, the study is basic in the sense that the proper information accounting procedure is very much required for efficiency decision making in such organization. Moreover, when a company is progressing, the government which it is under is also progressing especially in this era of mass transit programmers. When the government is satisfied in this regard the individual members of the society are also positively affected by the reduction in public transport costs. The researcher suggests further research of the level of application of the system in other manufacturing companies in any part of the country. Moreover, further inquiry should be carried out concerning proper utilization of the results of accounting information in the company under investigation.

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Summary

The article tries to discover that the proper and enough accounting information should be generated and applied substantially in organization studied. Also, the problems of the economy lie elsewhere rather than in sufficient generation and application of accounting information in decision making process in organizations.

Keywords: economic information, accounting information, decisions, planning, organization.

JEL classification: M400

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AUDIT INFORMATION TECHNOLOGY OF CORPORATE INCOME TAX BASE

Inna Shmychkova*

1. Introduction

The current state of economic development constantly requires new approaches to business caused by increasing domestic and international competition, consolidation of business requirement to respond quickly to changes in external and internal factors influence and extensive use of information technology in management. The use of information technologies takes place at all stages of management. The basic step is the use of accounting information processing. Given the fact that the accounting information differs significantly in volume and variety, complexity of logical and arithmetic processing relative simplicity, the inherent massive computations that are performed according to standard algorithms at regular intervals.

2. The history of information technology in audit

In order the account information to be useful, it should adequately reflect the business processes in the enterprise and easily checked, and be relatively constant. Thus, even at the stage of accounting the enterprise used elementary data processing using information provided, including data collection, transmission and storage, processing, in providing the users. This process is called an informational approach to accounting. It was introduced by the American scientist George H. Sorter [1]. According to this approach, based on primary documents, not only traditional accounts (financial) accounting but also a model that allows you to take multivariate management decisions are formed. He also pointed out that the cost of information should not exceed the cost of its receipt. Due to the widespread use of information technology in business and accounting the auditors are faced with the task to adapt them to their work or even automate basic processes of information processing.

The use of information technologies in the world of auditors has a relatively short history. Initial implementation of information technologies has changed the accounting method of storage, playback and data management. After the first use of computers for accounting purposes in the United States in 1954–1960 auditors did not use computers. With the advent of new, smaller and cheaper computers the situation started changing, forcing auditors to inspect the concepts of electronic data processing, the first attempts to develop auditing software for general purpose (generalized audit software – GAS) began. Further audit developed mainly due to improvements in technology and accounting requirements in control.

In 1968, eight major audit firms – members of the American Institute of Certified Accountants (AICPA) participated in the audit of electronic data processing, the result was the book of G. Davis "Audit and electronic data processing" [2, p.344]. It contained instructions on how to document verification of electronic quitrents data and the examples of how to describe automated internal control procedures.

At this time, information systems auditors formed Electronic Data Processing Auditors Association (EDPAA), whose aim was to produce guidelines, procedures and standards for inspection of electronic data processing. The first edition of collection of standards and recommendations took place in 1977, and the current edition published under the title "The control objectives for information and related technology" (Control Objectives for Information and Related Technology – COBIT).

Professional organization auditors pay much attention to the use of information technology. This is evidenced by regular updates (at intervals of 1–2 years) of almost all International Standards on Auditing issued by the International Federation of Accountants.

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During the period 2004–2007 the Institute of Internal Auditors (The IIA) has developed a set of standards related to audit and control in the use of information technology under the name GTAG – Global Technology Audit Guide – Audit Guide in embracing application technology.

The issue of audit changes through the use of computer technology were researched by scientists. Prof. V. P. Zavgorodniy, in particular, noted that "in terms of information systems audit of the basic principles undergo some changes" [3, p.297]. Prof. F. F. Butynets noted that the auditor should determine its impact on the organization and how audit uses computer system data in the entity [4, p.168].

3. Methods of application of information technology in auditing

In general, the use of information systems may affect: procedures, which are based on the process of auditor's obtaining sufficient understanding of the system of accounting and tax accounting and internal control; analysis of inherent risk and internal control systems of risk; development and implementation of auditor inspection control and specific data verification procedures needed to achieve the audit objectives.

The organization of audit largely depends on the method of processing accounting information at the enterprise, which can be divided into three types: paper, mechanized, computer (automated) depending on the type of computer technology used. Thus, the first two methods can be combined under the title "without a computer method", which combines paper and operated ones, meaning no list of means, such as the way they use. According to the methods of processing accounting information in business the methods application of information technology in the audit will be different (Fig. 1).

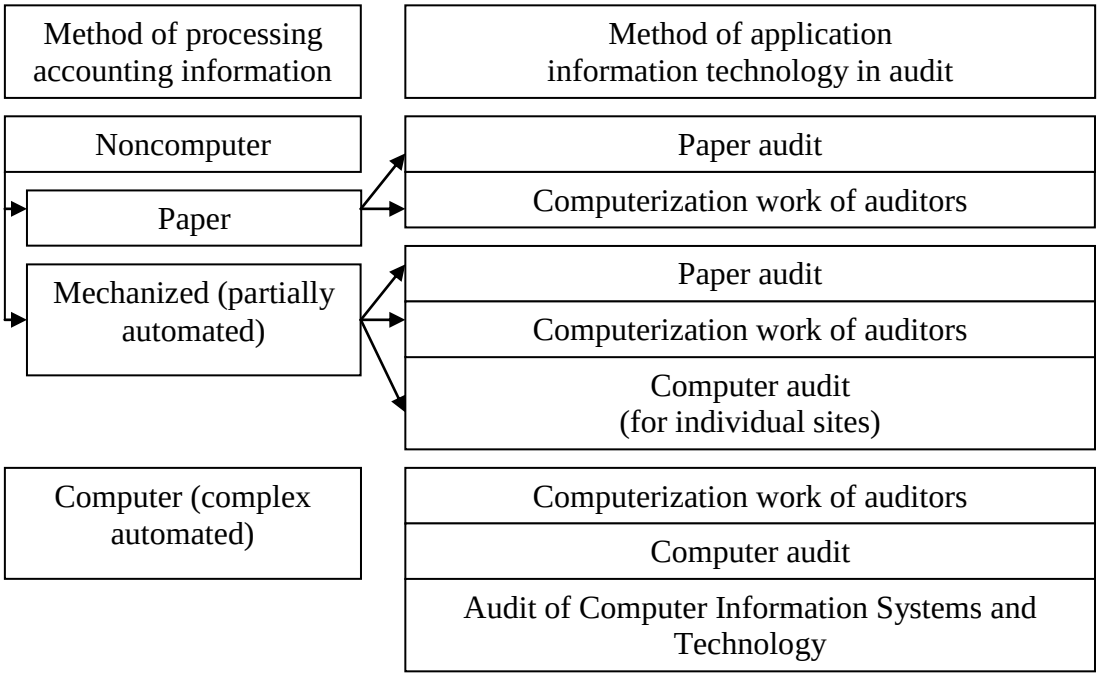

Fig. 1. Methods of application of information technology in auditing, corresponding to different ways of processing accounting information [5]

Noncomputer method of processing of accounting information (paper and mechanized) associated with the reflection of data in the primary documents and accounting records, are obtained by manual processing or information processing using certain techniques. The data recorded on paper, sometimes on electronic media and the information reflected in the documents are seen visually.

In terms of paper account in checking transactions the auditor conducts continuous or random checks. For this purpose the data with source documents are compared with the records in reports balances at the end of the previous period – with the remains to the next. The auditors in the past carried out so-called "paper" audit where computers were not used at all. To detect possible deviations in different spreadsheet table the auditor spends a lot of time on it. This requires the use of computer hardware and software to facilitate the work of the auditor. In this case, computing is

only an aid for processing. Currently, auditors are advised to use a variety of computer programs to facilitate the work-text, spreadsheet, programs formation of working papers and so on.

Where the accounting activities of the company are partially automated, it makes sense to use some computer technology audit (the study of software algorithms research database of accounting information in some areas). However, this case does not make much sense in system modeling of accounting system for its study or research system control technology built into the program as accounting information processing is carried out on the principles specific to paper records.

With integrated automation of accounting and business computer tools for automating work of the auditor and audit of computer technology have been widely used, and an audit of information systems and technologies was conducted. In this situation, the paper audit is impractical because a large amount of information exists only in electronic form.

Computer information processing environment significantly affects the learning process of accounting systems and internal controls of the company by the auditor. These are important characteristics of their data because they affect the characteristics of the internal control choice of checks on which you can determine the nature, duration and scope of audit procedures.

Unlike manual accounting systems where records are carried out on paper and the auditor shall consider destruction, falsification, replacing paper documents in the use of financial information system the auditor has to deal with the safety and reliability of computer accounting systems. Thus, the auditor examines a number of highly technical issues not directly related to accounting, but which directly affect the auditor's assessment of risk controls. Therefore, the auditor should determine the effect of the use of computer data processing systems in the client enterprise on the organization and audit, including the study of accounting and internal controls.

It should be noted that in some systems of accounting, which use computer processing of large transactions it may be difficult to obtain accurate results without the aid of special software. But on the other hand, for small amounts of data methods of data processing without using a computer can be more efficient. In addition, you can not get adequate technical assistance from employees of the economic entity, which will make use of specialized computer audit techniques ineffective. But in general, the use of KISP encourages auditors to perform the audit with the use of computer technology audit.

Computer auditing techniques may allow to process the larger volume of electronic check transactions and files with the accounting information. These technologies can be used for sampling operations of key electronic files, to sort transactions according to individual parameters or to check all the general population rather than a sample. In foreign literature the audit in terms of automated processing of accounting information is often divided into 3 types: audit "around the computer", audit "through computer", as well as audit "with the computer" [6; 7].

The traditional approach to verifying procedures is manifested during the audit without a computer. This approach focuses on the introduction of information in a computer system, obtaining data and testing procedures for manual control procedures. Computer control procedures and data processing technology are applied with check indirectly through repeated operations manually. Computational processes that occur in the environment of a computer system are manually checked by conversion, and data used in these calculations (e.g. information on price lists) are supported by relevant documents or internal regulations approved. This approach to validation of automated accounting systems can be quite effective only for old computer accounting systems.

4. Audit research procedure

It accents audit shifted to risk management and the team of auditors increasingly includes experts in information systems. At the same time, the profession of auditor is transformed into a combination of information technology for the use of computers and programs as specific tools for auditing. Control technologies are interrelated, so this is a necessary interaction of internal and external auditors (Fig. 2).

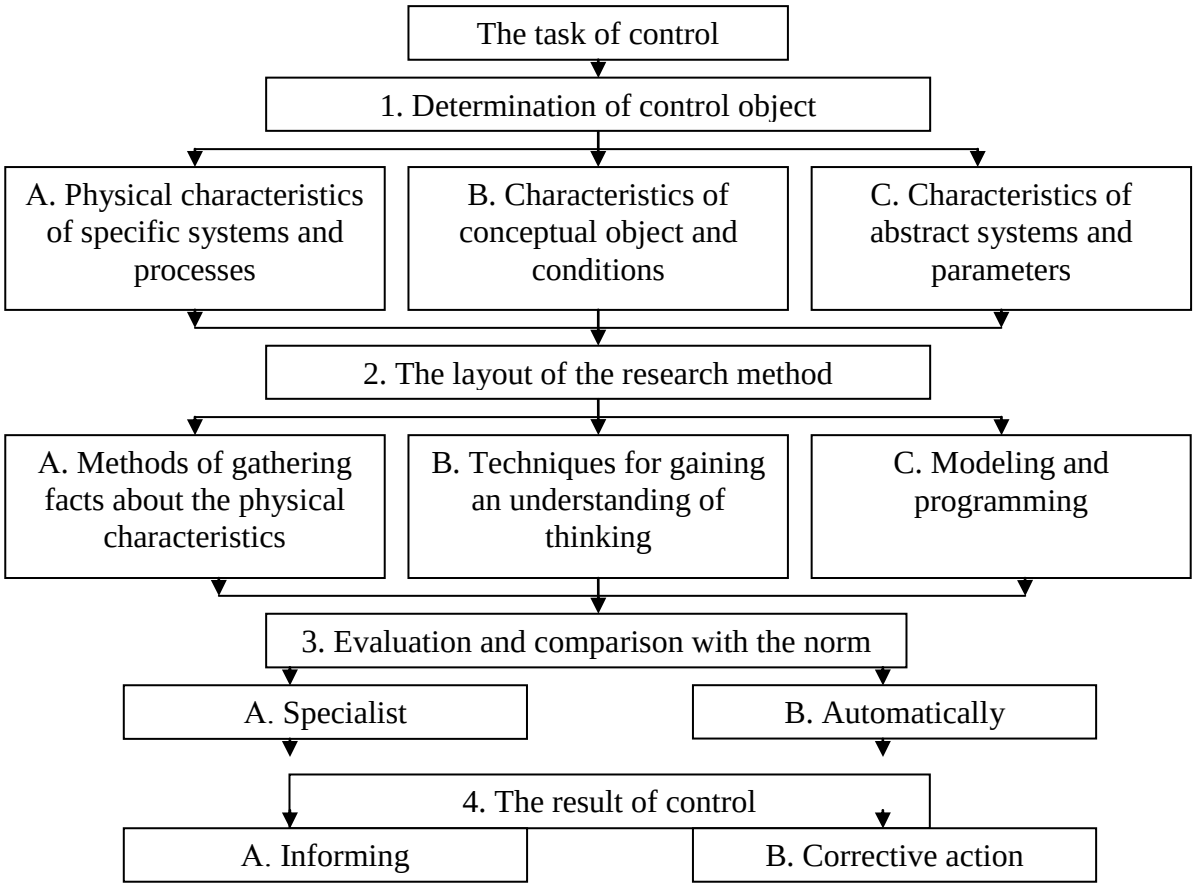

Fig. 2. The overall audit process research [5]

General methodological procedure of research facilities in audit provides that under the control of various tasks, the following steps are to be taken [5]:

1. Determine the list of objects to be checked.

2. According to the selected objects research method is compiled (instructional techniques and test methods are defined for which specific control procedures and control technology are planned). In addition, these techniques and methods can be grouped into three categories: a) methods of gathering facts about the physical characteristics (inventory); b) thinking techniques for gaining understanding (hermeneutics); c) modeling and programming. In an ideal situation to carry out research (monitoring) of each type of objects methods (A-A, B-B, C-C) are inherent to them.

3. There assessment revealed facts and comparison with the norm (as creative experts, and automatic).

4. Test results are formed, which may include provision of information, as well as the implementation of corrective action.

The development of consulting market and the market of information technologies improve overall economic conditions and increased competition will help consolidate global regulations in the field of national audit in the following ways:

1) establishment of national standards of control based on international standards;

2) adaptation of existing standards to current world standards.

However, in technological processing of accounting and financial information the company should be universal, no matter what part of the world the business is in. As a system document, COBIT provides the definition of control procedures and control objectives for specific information technology processes.

At the macro level in Ukraine the State Fiscal Service is working to develop and make conception of an electronic audit, the first fruits of which is the creation of an electronic cabinet for taxpayer

that simplifies collaboration of supervisory authority and the taxpayer. It also eliminated element time costs for direct submission of tax returns as well as corruption.

The company should develop and implement internal regulations (orders, regulations, standards, guidelines) to ensure the system audit. Such standards should be based on common standards known in internal control (International Standards of Auditing, COSO, etc.). Based on the research of using information systems in audit, we want to offer a typical algorithm of internal audit procedures regarding enterprise income tax base (Fig. 3).

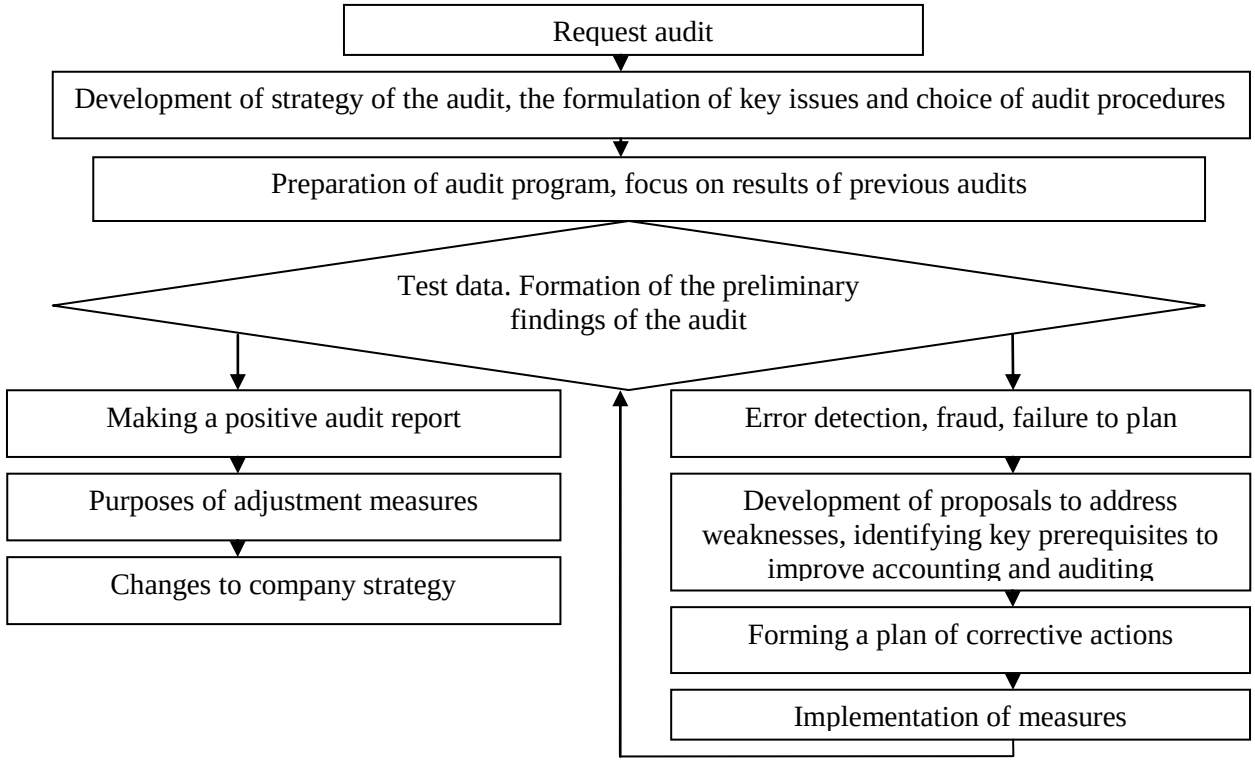

Fig. 3. Algorithm of internal tax profit audit

The development of a typical algorithm will facilitate automation of processes of analyzing information accounting and tax reporting at all levels and provide systematic evaluation of the implementation of audit procedures and submission reports symmetric data for similar inspections.

During the audit, the auditor should examine and evaluate workflow of economic object, formation, registration, storage, processing and transformation of primary documents in the system of records of accounts. It is necessary to clarify the place of the primary information and the degree of automation of data collection and registration. If you use special tools automating the collection and registration of information (sensors, meters, scales, barcode scanners, etc.), the auditor should ensure that the testing of these devices is regularly conducted by experts in identifying deviations and its result is to be made out and appropriate action is to be taken.

The auditor may obtain the first idea about the level of automation of primary documents compilation and get acquainted with the layout of workstations at the enterprise. The lack of workstations in production units in the company indicates either manual mode of drafting and transmission in their accounting, or that the documents are formed in the same accounting, which is typical for companies with a small volume of documents.

The auditor must assess whether workflow model, and implemented software are efficient and effective for the object, which is checked.

For large enterprises, it is important to analyze the distribution of functions between services operational management and accounting, information links for different units of accounting, to track the movement of individual documents and their relationship, to understand how the system which

contains electronic copies of documents is supported by documentary ties, and how the access to them is provided for accounting staff.

At enterprises where there is only automated accounting, the auditor should pay attention to the following points: compliance with the time interval between writing out the document transaction and its display in the account; the ability to save documents in the system after printing; communications and documents generating accounting entries.

The auditor needs to characterize methods of data entry and records, the formation of business operations. Automated and automatic generation of accounting entries and entries from typical operations and electronic forms of documents often avoids many mistakes that are inevitable with manual driving and shaping postings. It should be studied how the organization keeps track of business operations, the ability to quickly obtain information on business operations, documents and output and to make it available to the printer. On the other hand, the number of computer accounting transactions such as interest, closing accounts, determination of financial results may be initiated by the program. Therefore, such transactions can not be any paper organizational and administrative or supporting documents. In this case, the duty of the auditor is to carefully check the accuracy of the algorithms calculations.

Error in algorithm calculation and repeated many times in the recurring transaction that may distort the result of economic activity. While checking algorithms the calculation of the amounts in the conduct of business operations and accuracy of the postings are controlled.

5. Conclusion

Computer audit is intended primarily to check the control technology applications, which include input control procedures, conducting formal and logical control of information when you enter it manually or from other programs (often called means of control interfaces); control data processing technology to ensure their integrity and integration (for example, to ensure correct calculation residues or to prevent data like names of various contractors attached); and control technology input data (accuracy of the reports and transfer information for other applications).

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Summary

The article analyzes the history of application of information technology in audit. Methods of application of information technology in auditing were identified. Audit research procedure was described and algorithm of internal tax profit audit was offered.

Keywords: processing accounting information, tax profit audit, technology in audit.

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MANAGEMENT OF BASIC PROCESSES OF SERVICES IN THE CONTEXT OF THE INTERNATIONAL TECHNICAL REGULATION

Valentina Zakharchuck*

1. Introduction

An efficient technical regulation system is an important part of an attractive business environment in the field of services. Such a system does not restrict competition in the market, including foreign competition, while providing the appropriate level of protection of health and safety, national security, environmental protection and so on. Technical regulation is an important topic in the negotiations between Ukraine and the EU on the establishment of an integrated and comprehensive free trade area (DCFTA), which is also on the agenda of Ukraine's association with the EU. Services account for 1/2 to 2/3 of the gross domestic product in industrialized countries and for 50% in developing countries. Currently, the share of services in the world's gross national product is on average 65%, and commercial and financial services have been market leaders for a long time. They are followed by public transport and communications services, which are generally known as utilities (gas, electricity, water, etc.) and other services (education, entertainment, product delivery, etc.). The proportions are maintained in those fields, although in some cases the total share of services is greater than the one indicated in the gross national product. The US maintains the highest share of services in the structure of its gross national product (72,5%), followed by the Netherlands, Denmark, Sweden, United Kingdom, France, Italy, Japan, Germany and Spain. An important role in forming a civilized approach towards the development of the services market in Ukraine is played by the understanding of the priority areas for the development of the services quality management systems, the certification of such systems, the awareness of the role and importance of international standards and of the problems associated with the harmonization of the national standards of quality management system.

2. Importance of the research subject

The work on the certification of the services quality management systems requires the resolution of the problems created by the lack of regulations on services, uncertainty in classifications and terminologies, blurred concepts and definitions used in the provision of services. At this stage of community development, services are a financially tangible object of production and consumption, and the distinction between the definition of services and that of products is somewhat unclear [1]. Therefore, recognizing the current difficulties and the need to describe the object of the compliance certification it would be appropriate to use international ISO 9000 standards, which include requirements common to the quality management systems in industry and in the field of services of all kinds.

ISO 9000 standards lay down conditions for the management of the services delivery processes and require, in view of the specific nature of services, that a clear description be provided of the characteristics to be assessed by the consumers, and of their assessment criteria. They outline the concepts, principles and processes applicable to all kinds of services [2, 3, 4, 5].

One of the key requirements of IS0 standards is that a process approach be applied to quality management system implementation. The processes associated with the provision of services require a description of features which are not always noticeable to the consumer but which are important for assessing the service quality.

The various characteristics must lead themselves to the assessment of their correspondence to the

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standards adopted by the service provider. The characteristics of a service or its provision may be quantitative (measurable) or qualitative (comparative) depending on the method of assessment and on the assessor (either the service provider itself or the consumer). It should be noted that many qualitative characteristics that received the subjective assessment of the consumers may be subsequently be given a quantitative assessment by the service provider.

The characteristics that may be indicated in the regulatory documents include:

- capacity, capabilities, quantity of personnel and materials;
- waiting time, delivery time, length of the service delivery cycle;
- hygiene, safety, reliability and security;
- responsiveness, availability and politeness of the personnel, comfort and aesthetic environment, competence, reliability, accuracy, completeness, correspondence to modern standards, reliability and efficiency of contacts [5].

In most cases, management of services characteristics and their provision can only be achieved by managing the service delivery process. Therefore, an important role in achieving and maintaining the required quality level of services is played by the stages of the development of the main processes, the measurement and management of the process parameters. This article is dedicated to the aforementioned issues.

3. Discussion

Service delivery can vary from highly mechanized (direct dialing and calling on the phone) to a fully personalized (providing legal, medical and consulting services). The more completely the process can be described (indicating mechanical means or methods in detail), the greater are the opportunities for applying the structured and well-organized principles of quality management [6].

As part of the quality management system there must be developed the methodologies that establish requirements to all service delivery processes, including the following three fundamental processes: marketing, design and the service provision proper.

Let us consider the key aspects of the key processes development. The processes associated with providing quality marketing should include:

1. Identifying the needs and expectations regarding the proposed service (e.g., consumer preferences, service level and expected reliability, consumer demand trends).

2. Taking into account the activities of competitors and of the level of services provided by them.

3. Analysis of legislation (such as health, safety and environmental protection) and relevant national and international standards and codes.

4. Analysis of customer requirements, data on services and information on contracts (matching briefs, analyzed data are communicated to personnel engaged in the design and provision of services);

5. The application of quality management.

The results of market survey, the analysis and agreed commitments of the provider after the decision to provide services should be included in the brief description of the service. In a brief description of the services specified needs and appropriate opportunities of the organization which provides services as a set of guidelines and instructions on which the service is provided. The responsibilities of management should include all the necessary software, resources, tools and equipment in accordance with accepted schedules execution of each process required to start the service.

It is necessary to identify the persons responsible for the introduction of requirements for services and provision of clear provisions on security, possible liability and means to minimize the risk to personnel consumers and the environment. Any advertising of service has to display its specifications or standards of the organization and has to be based on how quality of the rendered service will be apprehended by the consumer. The marketing function should take into account the

risk of liability for poor quality and financial consequences of exaggerated or unwarranted advertising services. The processes of planning of service include its development on the base of brief description of both technical requirements for service and technical requirements as to its providing and for quality management, with the presentation of features of the organization (i.e. policy as to objectives and costs). Specifications for the service set content of services are provided, while technical specifications to provide services set means and methods of providing and specifications for quality control assessment methods set characteristics and its service provision and management. All three types of development: technical specifications for service specifications to provide services and specifications for quality management – are interrelated and during the entire design process are consistent. Management must allocate responsibilities and provide design services review to all involved in the design, with their duties to provide quality services. The prevention of deficiencies in services at this stage is cheaper than the elimination of them during the service.

Requirements of the design should include:

- planning, preparation, approval, tracking and control of technical conditions for the service and technical conditions for the provision of services and technical conditions for quality control;
- establishing a list of products and services to be purchased for the delivery of services;
- analysis of project at every stage of the design process;
- verification that the provision of services in the form in which it is implemented in practice corresponds to brief description of the technical requirements for services;
- implementation if necessary of changes in technical specifications for the service, the technical conditions for the provision of services and technical specifications for the quality control results feedback or for other reasons.

Quality management should be seen as an integral part of services related to the implementation processes – marketing, design and service delivery. Developed specifications for quality management should include effective management of each such process to ensure that services always answer their specifications and satisfy customers.

Designing quality management includes:

- identification of key activities within each process that significantly affect the performance of these services;
- analysis of the key activities for the purpose of selecting those characteristics, measurement and control which ensure the quality of services;
- determination methods of evaluation of selected characteristics;
- determination of how these characteristics influence or control them within the prescribed limits.

Applying the principles of quality management to service delivery can be illustrated by the following example of catering services. For catering services as key activity one can take cooking and how it depends on the timeliness of customer service. Characteristics of such activities to be measured can be the time spent on preparing meals components. As a method of evaluating this feature, you can use a sample length of time spent on preparation and serving up. And through rational allocation of personnel and feedstock one can ensure that the performance characteristics of services such as timeliness of service, was within the prescribed limits. After each stage of services design the officially documented analysis of its results should be conducted in accordance with brief description of the service. At the end of each stage of the design an analysis of the work should be done in order to ensure compliance with:

- Items of specifications for service related to meeting the needs of consumers;
- Items of specifications to provide services related to the requirements of the service;
- Items of specifications on quality management processes related to the performance of services.

Each of such project analyses should be conducted with the participation of all departments, functions of which affect the quality of services, depending on the particular stage. Analyzing the project possible

bottlenecks and inconsistencies shall be identified and for seen and measures be taken to ensure:

- compliance with certain technical conditions for the service and technical specifications for the requirements of service users;
- the adequacy of the technical specifications for the quality management if they have accurate data about the quality of services provided.

Service delivery to customers includes:

- compliance with specified technical conditions for the provision of services;
- monitoring compliance with technical specifications for the service;
- adjustment process in detecting abnormalities.

Quality management is an integral part of the service. It includes:

- measurement and verification of key activities within the delivery of services in order to avoid undesirable trends and customer dissatisfaction;
- self verification of the involved service personnel as an integral part of the measurement of process parameters;
- final assessment of services by the provider to determine the prospects regarding its quality.

Often, estimating the service provided, the consumer comes only from his/her own subjective opinion. Consumers rarely on their own initiative report to the organization that provides services about their assessment of the services provided, in the case of their discontent with services consumers are likely to stop using them or to buy them without notifying the organization that provides services, and does not allow to perform appropriate corrective action. Impressions of customer satisfaction drawn from the absence of claims can lead to erroneous conclusions. Assessing the degree of customer satisfaction, one should focus on how the brief description of service, specifications for it and for the delivery and service provision meets the needs of the consumer. The service evaluation made by the consumer should be compared with the submission and assessment of the provider to determine whether these same two quality criteria are needed to take measures to improve quality, to determine the degree of compliance with the specifications on service and if customer satisfaction has status register work performed at every level of the service.

It is important to implement techniques of control and measurement systems support service parameters. Means of control are: Relevant qualifications of staff, methods of measurement parameters and any analytical model of software used for measuring and testing. We offer basic process control methodology services on the following criteria:

1. The cost of the process – the ratio of resources spent to the amount planned, that is:

$$Vp = (\text{Actual} / \text{Planned Resources}) \times 100\%. \quad (1)$$

2. The length of the process – the ratio of the length of internal processes to the amount planned, that is,

$$Tp = (\text{Actual time} / \text{Planned duration}) \times 100\%. \quad (2)$$

3. Evaluation of the output parameters – comparison of output parameters with accepted standard, which can be the best achievements of the organization or achievements of competitors. Each output parameter shall be assessed according to the developed system of criteria.

4. Evaluation of input parameters – comparison of input parameters with accepted standard, which can be the best achievements of the organization or achievements of competitors. Each input parameter shall be assessed according to the developed system of criteria.

5. Process efficiency – the ratio as a percentage of the actual output and the actual input (eg, educational services is one of the criteria – is the number of graduates to the number of students who were admitted to the institution), i.e.:

$$Ep = (\text{actual output} / \text{input Actual}) \times 100\%. \quad (3)$$

6. Performance of the process – the ratio as a percentage of the actual output and the duration of the process, i.e.:

$$Pp = (\text{actual yield} / \text{duration of the process}) \times 100\%. \quad (4)$$

7. The impact of the process – the percentage ratio of actual and planned output, i.e.:

$$Pn = (\text{actual output} / \text{planned output}) \times 100\%. \quad (5)$$

8. Satisfaction domestic consumption process (employees within the organization) – is determined by a survey.

Analysis of the data by this method will determine the degree of fulfillment of the requirements for services and identify potential for improving the quality of services, and the effectiveness and efficiency of their provision. Most aspects of data collection and the use of statistical methods can be used regardless of whether it is meant to achieve a deeper understanding of consumer needs – to manage the process, learning opportunities, forecast or quality measurement to facilitate decision-making.

4. Conclusions. The perspectives for further research

Summarizing the above, we note that a variety of existing quality characteristics requires a clear indication system for providing quality services according to the needs of today's consumers, so along with the general ISO standards, for presentation of results of methodological work it is necessary to develop specifications or standards of the provision of services, which may include the following:

- recommendations on feedback from consumers (including possible assistance in forming services);
- the purpose and structure of processes;
- measures necessary to achieve customer satisfaction;
- legal and contractual guarantees;
- methods of monitoring and control processes that are recommended for use in accordance with the ISO standards;
- data to be registered and forms in which data must be registered.

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Summary

Key aspects when developing process approach for the quality system of services in the international ISO standards of a series 9000 are analyzed and the important role of the consumer in formation of requirements to rendering of services is proved. The author offered a technique of control of service parameters which allows to reveal reserves of quality improvement of service, as well as the efficiency and productivity of its granting. Recommendations concerning provisions which may contain specifications or the standard of the organization for a specification of activity of the organization are made.

Keywords: service provider, quality management system implementation, process approach.

JEL classification: L89

UD classification: 338.46:338.24

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TAX ASPECTS OF MERGERS IN PROCESS OF REALIZATION CROSS-BORDER MERGERS IN EUROPE

Marcela Žárová, Jana Skálová*

1. Introduction

European companies and their mergers are regulated by legal acts falling within Internal Market in the European Community. European Community (and EC as a part of the European Union) has been attended to cross-border merges since 1990, when the first directive concerning this issue was passed. There is no surprise that regulation concerning cross-border merges was regulated by the Directive on the common system of taxation applicable to mergers, divisions, transfers of assets and exchanges of shares concerning companies of different Member States (Directive 90/434/EEC).

As the financial reporting systems in the majority of European countries are closely connected with the tax system, where tax rules are accounting rules but respecting tax purposes of the governmental agencies not individual conditions of companies. Moreover, the majority of European countries use "classical" tax system, where there is the main criticism concerning double taxation (Nobes 2010).

The main aim of the Directive 90/434/EEC was to create for companies of different Member States within the Community conditions analogous to those of an Internal Market and to ensure effective functioning of the common market. Such operations ought not to be hampered by restrictions, disadvantages or distortions arising in particular from the tax provisions of the Member States. This directive together with the Directive on the common system of taxation applicable in the case of parent companies and subsidiaries of different Member States (Directive 90/435/EEC), were issued in 1990. Both directives should be transposed into the law of member countries till the end of 1992. Issuing directives, there was a fatal mistake; directives did not allow cross-border merges of companies from different Member States. This paradox was commented in Czech academic publication, in rigorous work (Lasak 2009). European regulation should focus on tax aspects of cross-border mergers first. Only a common tax system is able to provide a satisfactory solution in this respect. Whereas the common tax system ought to avoid the imposition of tax in connection with mergers, divisions, transfers of assets or exchanges of shares. Directive should enable restructuring of companies in European Union regardless of the border of Member States and without tax disadvantage. Ultimately, such a solution would correspond to ideological pillar of the European Union, free movement of capital.

However, another 15 years had gone till the Directive 2005/56/EC of 26 October 2005 on cross-border mergers of limited liability companies (sometimes referred to as "Tenth Directive") was adopted. The Tenth Directive brought Member States obligation to restate their law system in the way that cross-border mergers between Member States are realizable. The Court of Justice supported harmonization of the cross-border merges by their judgement.

The important case judgment of SEVIC Systems AG (Case C-411/03) has resulted in the addition of new elements to the Court of Justice's jurisprudence on freedom of establishment's interrelationship with Member States' company laws. The Court, while dealing with the SEVIC case, has extended the cross-border mobility of companies by applying the principle of freedom of establishment to cross-border mergers.

The Tenth Directive should bring Member States harmonization of company law so that the cross-border merges would be realized from law aspect. Regulation of cross-border mergers in Europe could bring a lot of advantages into business life, at least if crucial steps in preparatory

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phase of cross-border mergers are unified. The Czech Republic as all other EU member states was bound to implement the Directive 2005/56/EC of 26 October 2005 on cross-border mergers of limited liability companies (sometimes referred to as "Tenth Directive") to the Czech legal system in 2007. This directive was made public in Official Journal of the EU on 25 November 2005. The member states were obliged to transpose this Directive to their laws and regulations by 15 December 2007.

This Directive facilitates the cross-border merger of companies existing in at least two different regulatory law systems. Consequently, the Directive does not apply to mergers between companies from the same Member State. The cross-border merger Directive does not affect the applicable provisions of national law. Preparatory phase of cross-border merger is subject to the national laws of the Member State where cross-border merger is realized. The fact that preparatory phase of cross-border merger is subject to the national laws of the Member State could seem to be a positive aspect of European regulation as this allows member states to keep the accounting treatments they have already used and "in the way they have always done it" (Schroeder 2009). Contrary is the case. The example of practical procedures in cross-border mergers into the Czech Republic and out of the Czech Republic is used as a demonstration of very fundamental obstacles that implementation of the 10th EC directive fetches along.

The laws of the Member States are to allow the cross-border merger of a national limited liability company with a limited liability company from another Member State if the national law of the relevant Member States permits mergers between such types of company. Therefore if the cross-border merger of the Czech company with the Slovak company should be realized, the preparatory phase of cross-border merger for the Czech company is realized in compliance with the Czech jurisdiction and the Slovak company in compliance with the Slovak one. Completion of the cross-border merger and register in the public register is realized in compliance with jurisdiction where the seat of the acquiring company is or will be.

The law of each of the Member States to whose jurisdiction the merging companies were subject shall determine, with respect to the territory of that State, the arrangements, in accordance with Article 3 of Directive 68/151/EEC, for publicising completion of the cross-border merger in the public register in which each of the companies is required to file documents.

All Czech share companies and cooperatives may participate in cross-border mergers. According to the Tenth Directive, cross-border mergers shall only be possible between those types of companies which may merge under the national law of the relevant Member States, and a company taking part in a cross-border merger shall comply with the provisions and formalities of the national law to which it is subject. Example of merge is between Czech share companies and German AG or French SA. Merge between German AG and Czech limited liability company may be realized only if merge between Czech shareholding company and Czech limited liability company is allowed by the law and then German AG with GmBH is allowed too (according to the article 3, par. 3 of the German Law on merges). In practice, the Czech limited liability company may decide to merge with German GmBH into Slovak AS with the seat in Bratislava. This transaction is allowed only on conditions that all participated jurisdiction allows the transaction concerned, e.g. Czech law, German law and Slovak law.

The objective of this paper is to investigate whether tax aspects of mergers could cause the main obstacles in realization of cross-border merger in Europe. Transposition of the Tenth Directive hasn´t brought harmonisation of Member States' company law so as to enable the realisation of cross-border mergers from the legal perspective. Main reason for publication of this paper is to prevent other EU member states to increase obstacles in cross-border mergers realization.

A crucial obstacle to cross-border mergers, but also to inter-state mobility in general, has been the taxation of unrealized capital gains and the possibility to carry forward losses. This issue is also

referred to as "exit taxation." In local transactions, Member States provide for a tax deferral, which means that capital gains on assets or shares will be carried over to the new entity and will only be taxed as soon as they are realized. In a cross-border merger situation, such a deferral is normally not provided, because countries might lose their taxation rights in a cross-border transaction if, for example, the merging company is not deemed to be resident for tax purposes anymore. In general, this problem has been solved by the Tax Merger Directive, 83 providing that assets remain connected to a permanent establishment in the jurisdiction. Nevertheless, stakeholders from Finland, France, Iceland, and Slovenia have reported that tax treatment remained a problematic issue in cross-border mergers, and could also lead to using different structures than a cross-border merger to carry out such an operation (Bech-Bruun, Lexidale 2013). Our recommendations are stated in the conclusion.

2. Methodology

There are very unique papers on cross-border mergers like paper on cross-border mergers and acquisitions concerning financial and institutional forces (Coeurdacier) or paper assessing the impact of the main forces driving cross-border mergers, where a unique database for 10 acquiring manufacturing sectors and 10 acquiring service sectors located in 21 countries targeting foreign assets in 31 host countries (over the 1985–2004 period) were constructed (Oestreicher 2010). Since the issue of the 10th EC Directive and the obligation of the Directive transposition into law systems of EU member states, there is a lack of investigation on the countries accounting and law conditions concerning this issue.

Over the past five years, professional literature has included a number of references to a specific type of ownership transactions between companies, which are referred to as cross-border acquisitions and mergers. Hlaváč (2009), analyzed the processes of management of the acquisitions and mergers in international transactions; Lasák (2009) has been analyzing the legal aspects of mergers in relation to Community law, while Otavova (2010), commented on the integration of cross-border mergers and demergers to the legal system. Žárová (2006), describes the differences in the accounting regulations in various EU countries. Bohušová and Svoboda (2009) examined the IFRS and U.S. GAAP convergence in the area of mergers. Of the foreign authors, Burksaitiene (2010), deals with cross-border mergers in developed countries in 2008–2009, Tumpach (2009), deals with the problems involved in the interpretation of accounting regulations. Pala (2010) addresses the legal procedures applied to cross-border mergers in Slovakia. German literature quite frequently deals with the depiction of mergers from the accounting point of view; e.g. Knüppel (2007); with Kulenkamp (2009) and Behrens (2007) examining the EU directives relating to cross-border mergers. In the American literature Gaughan (2007), examines every type of corporate restructuring; from mergers and acquisitions to joint ventures; they are currently being used to revitalize companies in the US and abroad. Roberts (2008), deals with the sale, or purchase, of businesses, and evaluation as applied to M&A transactions.

Despite the relative frequency with which professional literature has dealt with this question, it must be said that business practice uses cross-border mergerss in order to realise the acquisition process rather seldom. The number of international aquisitions often comes to hundreds of cases; however, the specific legal form of the cross-border mergers is used only in extreme cases, as a rule. This is in addition to the more frequently used methods, such as buying shares, securities or purchasing the assets, or even the whole company.

Based on the empirical research, we have used analysis to reach the aim of the reserch. The aim of our research, whose partial results are included in this paper, is to analyse the causes of this state of affairs. Questions were prepared and carefully selected by members of research team. Studying particular cross-border mergers in different Member States, we came to the conclusion that without the direct contact of merging companies, we will not be able to recognize conditions those differ and that may cause inability of cross-border mergers realization. Questions concern accounting procedures, attempts to measurements and some tax

aspects of mergers. This approach is one of used common research methods (Crowther 2005). Questions were asked as pre-coded questions; some of them were asked as open questions. Our own research was based on questionnaire. We have therefore addressed for this purpose public accounting and consulting firm Crowe Horwath. This multinational network of independent consultancy companies seemed to be a guarantee of professional approach as for practical realization of cross-border mergers in different Member States. Questionnaires were sent to representatives of consultancy firms in all Member States. The present research was based on the willingness to fulfil the questionnaire. Research returns were 41%. Besides the Czech Republic, answers were collected from the following countries: Austria, Belgium, Cyprus, France, Germany, Hungary, Norway, Poland, Romania, Slovakia. We have determined fundamental questions to be examined in the above mentioned group of European states.

3. DISCUSSIONS

a. Cross-border mergers realized in the Czech Republic

If we concentrate only on cross-border mergers carried out in the Czech Republic in the past few years, then there will not be many statistics. It could be said that although in the past there were a lot of cross-border acquisitions, they were covered by a different legal approach, that were cross-border mergers. Investors, when choosing acquisition strategies, weigh up the existence of the two possibilities for doing business abroad; that of working through a subsidiary, or through a permanent establishment (or a business representative).

Cross-border mergers lead to the merging company, usually, changing into the permanent establishment which represents the company abroad, and it must fulfil certain requirements, which are demanded from it by the legal systems of both states. Doing business through a subsidiary, in comparison to this step, then, is much simpler. This is because the subsidiary simply comes under the legal order of the state in which it is situated. Information about the mutual joining of the companies provides consolidated financial statements, the preparation of which is a long term standard approach, based on precise and clear rules.

An indisputable advantage of doing business abroad through a permanent establishment, is the simplicity with which it can be established and wound up, frequent absence of the requirement of a minimum amount of one's own capital, simpler organisational structure, lower demand for the arranging of the trade formalities necessary for carrying out certain activities, the possibility of having problem, free financial flow between the one who sets it up and the permanent establishment, and so on. However, if the company decides to do business through a permanent establishment, it must bear in mind that there are attendant complications. A frequent complication is insufficient accounting and tax adjustments for this form of business organisation, both in the state where the permanent establishment is actually situated, and the state from where it is directed (the seat of the successor company)

If we analyse those cross-border mergers carried out in the Czech and Slovak Republics from 1st January, 2008 to 31st December, 2012; according to the following Table I, it must be said that the amount is very low.

Tab. 1. Cross-border mergers carried out in the Czech and Slovak Republics

Calendar year	2008	2009	2010	2011	2012
Number of mergers noted in the Company Register	4	8	15	24	11
Number of mergers completed till Dec 31st 2011	4	7	14	17	11

Source: Author's own research according to www.obchodnivestnik.cz and www.justice.cz as well as similar sources in the SR

The table contains noted mergers and those mergers which were successfully completed; i.e. written in the Commercial Register. Some of the mergers, however, were not successfully completed.

Tab. 2. Overview and numbers of mergers from the Czech Republic to the EU member state

Mergers from the CZ to the EU member state	2008	2009	2010	2011	2012	Total number of mergers
Cyprus	2	2		3	1	8
Great Britain	1	1				1
Germany		1	1	1		3
Slovakia		2	4	4		10
Netherlands		1		1	1	3
Ireland		1				1
Poland			1			1
Luxemburg				1	1	2
Belgium				3		3
Italy				1		1
Austria				1	1	2
Total	3	6	6	15	4	36

Source: Author's own research according to www.obchodnivestnik.cz and www.justice.cz as well as similar sources in the SR

Tab. 3. Overview and numbers of mergers from the EU member state to the Czech Republic

Mergers from the EU member state to the CZ	2008	2009	2010	2011	2012	Total number of mergers
Slovakia		1	5	3	4	13
Netherlands			2	2		4
Germany			1		1	2
Cyprus				2		2
France	1		1			2
Poland		1			1	1
Hungary			1			1
Luxemburg				2		2
Austria		1			1	
Total	1	3	10	9	7	30

Source: Author's own research according to www.obchodnivestnik.cz and www.justice.cz as well as similar sources in the SR

If we examine the Czech Republic to see which countries are the "favourites" for cross-border merger, then without a doubt we find the Slovak Republic on first position. The other countries, where historically, more than one cross-border merger with Czech companies, can be seen in the tables above. What's the main reason for this fact? The high number of successfully completed mergers has the Netherlands and Cyprus may be attributable to favourable tax regimes in those countries. But why is there a low number of cross-border mergers with the nearer countries such as Poland or Hungary? Answers might be found from the following research results.

b. Research on the reasons for the limited use of cross-border mergers

As we can see from the previous statistical information, cross-border mergers in the Czech Republic do not represent a mass transaction. Business with foreign dimensions is today an almost everyday routine, and the EU guaranteed free movement of goods, services, persons and capital has become a fact of life for most Czech companies. Concerning cross-border merger, however, Czech companies exercise great caution. What could be the reasons for this approach?

When examining obstacles which could put companies off from realising cross-border mergers, we came to conclusion that besides the fact that some accounting aspects of mergers are not

harmonised and some legal systems have different approaches to valuating property for business law purposes than they have for accounting purposes, tax aspect of mergers should be focused. Tax regimes are often more favourable to the realisation of inland mergers than they are to cross-border mergers. It can lead to some tax disadvantages. We have devoted our research to the analysis of these causes; we are doing further work on tax aspects.

c. Tax aspects of mergers

Directive 90/434/EC sets the conditions for mergers, business investment and exchange rate of shares. It also applies the joint taxation system for mergers, split of companies, transfers of assets and the exchange rate of shares concerning companies from different member states. Directive 90/434/EC was amended several times and it was replaced by Directive 2009/133/EC of 19 October 2009, with the same structure of articles as the previous one. References in the text are the same for both Directives (Directive on mergers).

The Czech law No. 438/2003 Coll., implemented this Directive upon the Czech Republic's accession to the EU. It is even applied to domestic mergers, including merger of parent companies and subsidiaries. The Directive also delineates the types of companies to which it is to apply. Generally, it concerns companies kept in portfolios (as a rule, capital portfolios), which do not have the possibility of tax relief for legal entities and are considered to be tax residents of the EU.

However, implementation of this Directive brought one big advantage for Czech companies; namely, the possibility of carrying tax losses among capital companies since 2004. The Directive requires this advantage in cross-border transactions, the possibility of carrying the losses among domestic companies is a great advantage (Skalova 2010).

The basic principle of tax neutrality is contained in Article 4 of the Directive. Neither mergers nor splits have, as a consequence, the capital gains tax calculated as the difference between the actual value of the carried over assets and liabilities and their value for tax purposes.

The member states account for this non-taxation of value changes by the fact that the receiving company calculates all new depreciations and profits or losses relating to the carry over of the assets and liabilities according to the regulations which would govern the transferring company, or companies, if the merger or split had not taken place. In the opposite case, the Directive states: "If the recipient company can, according to the laws of the member state containing the transferring state, carry out a calculation of the new depreciations and profits or losses relating to the carry over of the assets and liabilities on another basis, does not uses untaxed changes in value on the assets and liabilities, under which the recipient company has used this possibility."

The Czech Republic has chosen the tax continuity principle; i.e., not taxing capital gains at company or partner level. Revaluation of assets and liabilities at fair values, carried out during mergers and included in the accounts among the liabilities as an increase in own capital, does not have any tax consequences.

The tax value of the merging company's assets is carried over to the successor company, and they are used in other tax judgments in transactions with assets (sale, tax depreciations). This method was chosen not only for cross-border mergers (as stipulated by the Directive), but also for domestic mergers.

In order to be able to prepare some generalization, we are located information on internal tax conditions for mergers in different countries. A lot of countries have chosen advantageous tax regimes for domestic mergers, as can be seen in the following table.

Tab. 4. Internal tax conditions for mergers

	What, from the point of view of income tax, is revaluation in domestic mergers?	During a merger, is it possible to transfer tax losses over to the successor company, in a domestic merger, and under what conditions?
Belgium	n/a	Yes, it can be used by successor companies only against the sum of the „taxable base“ of each of the companies, which the given company has in total after the merger
Czech Republic	Not relevant for tax purposes	Yes, under the condition that: it is for five tax periods at most, losses are linked to the activities of the merging company (if the successor company does not perform the activities of the merging company, it is not possible to carry over the losses) and the purpose of the merger should not be the reduction, or avoidance, of tax obligations
France	It is relevant for tax purposes (tax depreciations from new prices, revaluation considered as taxable income); it is possible to apply Article 210 of the tax law and not pay tax on the revaluation	Yes, but the successor must carry out the activity
Cyprus	It is not tax relevant (tax depreciation continues from the original prices used for tax purposes)	Yes, without further limitations
Hungary	It is tax relevant (tax depreciation from the new prices, revaluation is considered to be taxable income); the exception is the "preferential merger"	Yes, without further limitations
Norway	It is not tax relevant (tax depreciation continues from the original prices used for tax purposes)	Yes, if the expired company carries on doing business
Poland	It is not tax relevant (tax depreciation continues from the original prices used for tax purposes)	No
Austria	It is not tax relevant (tax depreciation continues from the original prices used for tax purposes)	Yes, on condition that the successor takes over the carrrying values of the merging company; the losses of the merging company must be compatible with the business taken over/taken over assets – must exist to the decisive day; loss is useful only to the extent that the business/asset from which it arose, exists to the decisive day.
Romania	It is not tax relevant (tax depreciation continues from the original prices used for tax purposes)	No, only the successor company can use tax losos
Slovakia	Companies have the right to choose. Valuation is either not tax relevant, and then it continues from the original prices, or it is tax relevant; the difference between original and new prices comes under income tax.	Yes, on condtion the following consecutive tax periods do not exceed 7. The purpose of the merger may not be the reduction, or avoidance, of tax duties.

Sources: Authors‘ own research

The Directive is meant for those situations where, in a cross-border merger, the property remains in the state where the original merging company was situated. The Directive does not envisage the shift of property from one state to another, and neither, therefore, the situation where the original state would lose the possibility of taxing the profits gained from carrying out the activities of the expired company. This subject will remain in the territory of the original state. Its business activities, however, will take the legal form of a foreign permanent establishment. For tax purposes it will still be run as an income tax payer.

The Directive does not contain clear provisions for the situation where the merging company's property is not linked to permanent establishment. It does not solve the situation where the merging company's property is „moved from one state (where the merging company is situated) to another (the successor company's seat). Some EU member states, therefore, approach the situation like an operation „ realising capital profit with tax consequences". It concerns, mainly, taxation of payers leaving the particular state (in tax theory this tax is known as „exit tax"). Levying this tax on a company (or individual) leaving a given EU member state is, however, seen by the ECJ as an impediment to the freedom to establish as granted by Article 43 of the EC Treaty [13, p.87].

We can take as an example the decision of the ECJ C-9/02 Lasteyreie du Saillant; where the ECJ upheld the freedom to establish in connection with French tax regulations, according to which unrealised increases of share prices were taxed if the payer moved his place of residence outside France. When Mr Lasteyreie du Saillant moved from France to Belgium, he was taxed on the increased value of his shares, even though he had not yet gained the profit from their sale. The ECJ concluded that these measures limit the freedom to establish, because they have a marked discouraging effect on payers who wish to settle in another member state.

Taxing residents on the basis of profits gained, and on the other hand, taxing departing residents according to the value of their assets before they have gained the profits represents a difference in their treatment, which is an obstacle to the freedom to establish as well as the free movement of persons and capital.

The conclusions reached, while they apply to individuals, could, however have an impact even on companies in the case of cross-border merger. In the case of cross-border merger, valuable property could be brought from the merging companies to the successor companies in other EU member states, where sales of this property could attract lower rates of taxation. The Czech Republic has not, to date, passed any legislation dealing with this problem. It may be stated that Czech businessmen could use this „loophole" in some transactions, leading to the optimisation of their tax burden. Some states, as can be seen from the following table, however, do impose tax upon subjects leaving their jurisdictions.

Tab. 5. Company exit tax

	What is taxed in the case that, in your country, as a result of cross-border merger, there does not remain any permanent establishment?
Belgium	Difference between market value and tax net book value of the assets and liabilities
Czech Republic	Nothing. There is no obligation to tax the difference between the market and tax value
France	Difference between the market value and tax net book value of the assets and liabilities
Cyprus	There is no obligation to tax the difference between the market and tax value
Hungary	Nothing, provided it was not revalued. If assets and liabilities arerevalued in the mening balance sheet, then the diference
Norway	Difference between market value and tax net book value of the assets and liabilities
Poland	Nothing, provided it has a seat in the EU and had at least a 10% share in the merging company (mergers are tax neutral)
Romania	Nothing. There is no obligation to tax the difference between the market and tax value
Slovakia	Nothing. There is no obligation to tax the difference between the market and tax value

Sources: Authors' own research

Other differences arising from transposition of the Directive on cross-border mergers could be found in some other areas between Member States.

Continuation of tax depreciation in cross-border mergers. In Belgium, Poland, Romania, Hungary and Cyprus, acquiring company takes over original company´s tax book value of the disssolved foreign company regardless of whether assets are actually transferred across borders into Belgium, Poland, Romania, Hungary and Cyprus, or whether assets remain in permanent establishment abroad.

In Norway, acquiring company takes over for assets in fair value for tax purposes regardless of whether the assets are actually transferred across borders into Norway or whether assets remain in permanent establishment abroad.

In Slovakia, assets are transferred either in original tax value or new market value, if the dissolved company in its country taxes additionally difference between the market price and the net book value.

The carry over of tax losses from abroad. Directive 2009/133/EC, Article 6, provides that if the Member State would apply provisions allowing the receiving company to takeover the losses of the transferring company which had not yet been exhausted for tax purposes, it shall extend those provisions to cover the takeover of such losses by the receiving company's permanent establishments situated within its territory. This article, however, does not provide that it would be necessary that the loss of the acquired company is always taken by the acquiring company.

The problem is that this rule can be transposed into national legislations of EU member states in different ways:

1. Possibility to take over the loss of the dissolved company whether domestic or foreign, without limitation whether it is a subsidiary or equity unrelated company (e.g. Czech Republic)
2. Possibility to take over the loss of the dissolved company but only of the domestic one (e.g. Finland, details in text).
3. The ability to take over the loss of the acquired company is forbid en (e.g. Poland).

Research shows that transposition of Article 6, Directive 2009/133/EC, has been realized within above mentioned 3 approaches with material differences between them. In the Czech Republic, to take over the loss of the dissolved company to acquring one is enabled on condition that there exists proper economic reasons for merger. Acquiring company or permanent establishment may then apply this tax loss against the same activities which were the purpose of this tax loss.

In Belgium, tax loss may be taken over at merger on condition that tax loss may be applied at acquiring company only against part "tax value" of each company, that receives that company after merger. In Romania and Poland, tax loss may not be taken over from dissolved company to acquring one. However, acquring company may apply tax loss after merger is realised. In Norway, tax loss may be taken over from dissolved company to acquring one on conditions that acquiring company take over also activities of dissolved company, where tax loss has been realized. In France, tax loss may be taken over from dissolved company to acquring one on conditions that acquiring company is in business. In Hungary and Cyprus, tax loss may be taken over at merger without requirements. In Slovakia, tax loss may be taken over from dissolved company to acquring one on conditions that the goal of the merger is not to avoid obligation to pay taxes.

As mentined above in the text, Czech Republic transposed provision into the Act on income tax that the acquiring company can take a tax loss company being acquired, whether this will be the company acquired domestic or foreign one. They are thus ensured equal rights to tax residents and non-residents.

The fact that this approach is not in all EU countries the same, it is also evidenced by the judicature of the European Court of Justice, in particular the different approaches to a merger with a domestic subsidiary versus foreign subsidiary testifies in particular the judgment (A Oy Case C-123-11).

In the mentioned case, dissolved Swedish company was a subsidiary of Finish undertaking. Finish law on income taxes doesn´t allow to transfer tax loss by parent company when dissolved company has its registered office in other EU state. Transfer of tax loss is, on the other hand, enabled in the case of merge with non-resident company. Finish court asked the European Court two questions:

1. Do Articles 49 TFEU and 54 TFEU require that a receiving company may, in the context of its taxation, deduct the losses of a company which was resident in another Member State and which has merged with the receiving company, when those losses arise from the merged company's activity there in the years prior to the merger and when the receiving company has no permanent establishment in the State of residence of the merged company and, under national law, the receiving company may deduct losses of the merged company only if the latter is a resident company or the losses arose in the permanent establishment situated in that State?
2. If the answer to the first question is in the affirmative, do Articles 49 TFEU and 54 TFEU have a bearing on whether the loss to be deducted is calculated in accordance with the tax legislation of the receiving company's State of residence, or should the losses ascertained pursuant to the law of the State of residence of the company which is to be merged be considered as deductible losses?

Particularly, the second answer is important pro Czech environment, because Czech law on taxes regulates the treatment about transfer of tax loss from abroad. Detailed regulation on determination of such tax loss is not set out. Answers to questions are part of court's statement. Articles 49 TFEU and 56 TFEU do not, preclude national legislation under which a parent company merging with a subsidiary established in another Member State, which has ceased activity, cannot deduct from its taxable income the losses incurred by that subsidiary in respect of the tax years prior to the merger, while that national legislation allows such a possibility when the merger is with a resident subsidiary.

Such national legislation is none the less incompatible with European Union law if it does not allow the parent company the possibility of showing that its non-resident subsidiary has exhausted the possibilities of taking those losses into account and that there is no possibility of their being taken into account in its State of residence in respect of future tax years either by itself or by a third party. The rules for calculating the non-resident subsidiary's losses for the purpose of their being taken over by the resident parent company, in an operation such as that at issue in the main proceedings, must not constitute unequal treatment compared with the rules of calculation which would be applicable if the merger were with a resident subsidiary. From the court ruling, which is in compliance with EU law, it is evident that member state is not obliged to respect the transfer of tax loss from abroad. On the other hand, if member state respects to transfer tax loss from abroad, then the transfer of tax loss must be recalculated according to local tax rules where detailed rules on non-current assets´ depreciation charges are stated or enables tax recognition provisions.

Another decided case concerns prevention of companies from abusing favourable tax principles of Directive 90/434 to circumvent or avoid the tax. It's the case Foggia C-126/10. The dispute has happened in Portugal, where favourable tax conditions in Directive 90/434 were transposed even for domestic mergers. Conditions are similar to the Czech Republic. The dispute has been made between Foggia SGPS and the Ministry of Finance concerning the refusal by the latter to authorize a transfer of tax losses following an operation to merge companies belonging to the same group (Riguadiana).

In that regard, the services of the Ministry of Finance stated that, for the years under consideration, Riguadiana had ceased to have a portfolio of holdings, that it had practically no revenue from its activity and that it had invested only in securities. Moreover, the origin of that company's tax losses in the income tax return for 2002, in the amount of around EUR 2 million, is unclear. Although the removal of Riguadiana from the structure of the group may clearly lead to a reduction in administrative and management costs, that positive effect in terms of the cost structure of the group cannot, according to the Ministry of Finance, be considered as being of commercial interest for Foggia SGPS. Foggia SGPS were not satisfied with the rejection and turned to the Portuguese court. The Portuguese court decided to stay proceedings and refers the following questions to the European Courte of Justice:

1) What are the meaning and effect of Article 11(1)(a) of Directive [90/434] and, in particular, what is the meaning of "valid commercial reasons" and "restructuring or rationalisation of the activities" of companies participating in operations covered by Directive [90/434]?
2) Is the view taken by the tax authorities, that there are no serious commercial reasons for the acquiring company's request to transfer tax losses, leading them to conclude that, from the acquiring company's point of view, there was no apparent commercial interest in acquisition, since the acquired company had developed no activity as a holding company and had no financial holdings, and would consequently transfer only substantial losses, although the merger might represent a positive effect in terms of the cost structure of the group, compatible with that provision of Community law?'

It must be emphasised at the outset that the common tax rules laid down by Directive 90/434 cover different tax advantages and apply without distinction to all mergers. The reasons for the proposed transaction are important, however, in giving effect to the option given to Member States, under Article 11(1) of that directive, not to grant the benefit of the provisions of that directive.

In particular, under Article 11(1)(a) of Directive 90/434, as an exception and in specific cases Member States may refuse to apply, or may withdraw the benefit of all or any part of the provisions of that directive, inter alia, where the merger has tax evasion or avoidance as its principal objective or as one of its principal objectives. That same provision also provides that the fact that the operation is not carried out for valid commercial reasons, such as the restructuring or rationalisation of the activities of the companies participating in the operation, may constitute a presumption that the operation has such. Company FOGGIA argued that "valid economic reasons" see that the dissolution of the subsidiary Riguadiana will simplify structure group and structural costs savings groups.

In that regard, it should be added that the cost savings resulting from the reduction of administrative and management costs, when the acquired company disappears, is inherent in any operation of merger by acquisition as this implies, by definition, a simplification of the structure of the group.

By automatically accepting that the saving in the cost structure resulting from the reduction of the administrative and management costs constitutes a valid commercial reason, without taking account of the other objectives of the proposed operation, and particularly the tax advantages, the rule set out in Article 11(1)(a) of Directive 90/434 would be entirely deprived of its purpose, which consists of safeguarding the financial interests of the Member States by providing, in accordance with the ninth recital in the preamble to that directive, the option for those Member States to refuse the benefit of the provisions laid down by the directive in the event of tax evasion or avoidance. Judgement in the case Foggia:

The Court (Fifth Chamber) hereby rulesArticle 11(1)(a) of Council Directive 90/434/EEC of 23 July 1990 on the common system of taxation applicable to mergers concerning companies of different Member States, is to be interpreted as meaning that, in the case of a merger operation between two companies of the same group, the fact that, on the date of the merger operation, the acquired company does not carry out any activity, does not have any financial holdings and transfers to the acquiring company only substantial tax losses of undetermined origin, even though that operation has a positive effect in terms of cost structure savings for that group, may constitute a presumption that the operation has not been carried out for 'valid commercial reasons' within the meaning of Article 11(1)(a). It is incumbent on the national court to verify, in the light of all the circumstances of the dispute on which it is required to rule, whether the constituent elements of the presumption of tax evasion or avoidance, within the meaning of that provision, are present in the context of that dispute.

4. Conclusion

As we stated in the introduction, the objective of this paper is to investigate whether tax aspects of mergers could cause the main obstacles in realization of cross-border merger in Europe. What is evident from our research, it is the fact that some tax aspects of mergers are not harmonised, because the Directive has given too great a discretion to the member states. This refers that realisation of cross-border mergers is impossible. Using Directive on mergers obliges Member States to apply the Directive to all states, if companies from different Member States involve the

merge. Directive on mergers, Article 6, provides that if the Member State would apply provisions allowing the receiving company to takeover the losses of the transferring company which had not yet been exhausted for tax purposes, it shall extend those provisions to cover the takeover of such losses by the receiving company's permanent establishments situated within its territory. Article 6, however is not transposed into national legislations of EU member states in the same way. It is evident, that regulation by Directives might bring disadvantages because transposition of Directive into legislation of EU member states could differ. In such cases, European Court of Justice is asked for solution. As an example the merger between Czech and Slovak companies could be used. Czech tax law must allow to transfer unused tax losses of dissolved Czech company to permanent establishment of Slovak acquiring company in the Czech Republic. However, the Directive does not mandate that the Czech tax losses were taken into account by Slovak successor company for the determination of the tax base of the Slovak Republic. The European Court of Justice examines in its judgments, in particular, whether the tax legislation of a State is in contrary to the freedom of establishment, i.e. whether the freedom of establishment is not limited. According to case law, restrictions on freedom of establishment are permitted if it is justified by overriding reasons in the general interest. It may consist in preserving the allocation of tax jurisdictions between Member States. This tax jurisdiction of a particular state is threatened by taking into account the losses incurred in another Member State. Acquiring company in its taxation deduct tax losses of foreign companies. From the judicial act A Oy C-123/11 follows the conclusion that EU law does not preclude such a solution in national tax system, under which domestic suc cessor company in its taxation cannot deduct tax losses to a foreign company which has merged and it is its legal successor. Foreign tax losses arising in the jurisdiction of another Member State and the State acquiring company may not disregard it. If the company decided to take into account tax loss and it allows tax deduction, then this loss must be fundamentally calculated in accordance with the tax regulations. This tax loss will be calculated at a level which would have been shown by a domestic taxpayer in accordance with domestic tax law. This approach ensures equal treatment of domestic and foreign cases. The absence of uncompromising harmonized tax aspects of cross-border mergers causes, that each Member State transposes the Directive within accounting treatments they have already used and under the present conditions unique for each Member State. Individual, unlinked way of transposition of Directive would have no impact if it's not for the topic of cross-border mergers where mutual harmonization is the necessary condition for successful cross-border mergers realization. This argument and slow harmonization process could lead to a wrong conclusion that the topic of cross-border mergers is not important to be solved at all and that cross-border mergers are happened only occasionally for which unified approach is not necessary to be developed.

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Summary

EU Member States expected that the 10th EC Directive bring harmonization of company law so that the cross-border merges would be realized from law aspect. However, transposition of the Tenth Directive hasn't brought harmonisation of Member States' company law so as to enable the realisation of cross-border mergers from the legal perspective. Moreover, focusing on tax aspects of cross-border mergers and studying EC regulation rules for cross-border mergers, it is hard to ignore that there is no conception in providing clear regulation. There is no connection between directives regulating taxes (directives which should eliminate tax burdens in cross-border mergers) and company law regulating cross-border mergers. Therefore research concentrates on the question of the tax burden impact on the cross-border mergers in Europe, particularly partners of companies in the Czech Republic. Conclusion from the research should be generalized for other European countries.

Keywords: cross-border mergers, tax aspects, take over losses.

JEL classification: H25, H32

UD classification: 005.591.452:336.22

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FORMATIONAL CHARACTERISTICS OF THE NEW MARKETING APPROACH IN BANKING AREA

Diana V. Zavadska*

1. Introduction

Nowadays the current bank development is highly influenced by the changing processes, that happen in the world financial markets. They are caused by the factors of globalization, internalization, fast-speed development of the international, communicative and marketing technologies, increasing of the innovational activities and formation of the economical science.

The Ukrainian law on The Main Principles of the Development of Informational Society in Ukraine for 2007–2015 determines one of the major Ukrainian priorities as a "pursuit to create a free society, people-oriented and directed to the development of the informational one, which makes efforts to create the opportunity and gain information, to have free access to its sharing in order to provide to every person the possibility to fulfill his potential, stimulating social and individual development and increasing the quality of life" [1].

2. Actuality of the research subject

The access to the market of the new powerful companies, reorientation from the manufacturing to clients' needs adaptation, creation of the new highly-qualified staff and some other reasons reinforced the intensity of competitiveness among banks. In case of informational development of the society one of the major tasks for the banks is to develop the client-oriented strategy, which will provide the possibility to create perfect rival advantages and increase the competitive ability in terms of the effective usage of knowledge.

This article is aimed to prove the idea, that the formation of the appropriate marketing tools stimulates the successful achievement of the bank purposes, which include the structure, depended on the clients' demands, that is constantly modified in conditions of the world-wide transformational changes.

3. The degree of problem's development

During the last decade there was outlined the crisis of the marketing evolutional theories: well-known scientists discuss the effectiveness of their usage in terms of the socio-economic significance; ground the critical ideas about marketing tools and the productivity of marketing measures. Not only the role of marketing in economics is challenged and criticized, but also the value of varied scientific approaches. Some of the scientists express the opinion, that marketing methods at the micro level are outdated and do not provide the expected positive results, which could facilitate the solution of the major problems.

The significant contribution in the marketing theory and methodology was made by such leading scientists as Bontis N., Borden N., Chekitan S. Dev, Doyle P., J. Eiglier, E. Langeard, Lamben J.-J. Rathmell. P., Rekham N., Bagiev G., Bitner M., Golubkov E., Mironova E., Saveliev T., Sachuk T. etc. [2–26]. However the analysis of alterations, based on the structure of the bank marketing system in terms of informational development of the society is still out of sight in scientific works.

4. Disclosure of the main text

During its formation and development marketing has crucially modified. The theoretical basis for the analysis performance of the modern tendencies and changes was brought out from the

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evolutional marketing theory of Kotler P. [3, p. 41–48]. He distinguishes the following concepts of industrial, tradable, merchandising, traditional and socio-ethical marketing, which prove the general tendency of marketing development – transferring attention from the goods manufacturing to the clients' needs (Tab. 1).

Tab. 1. The major concept approaches of the usage of marketing in modern banks

Tendency	Features of the bank marketing
Concept-evolutional	Main features: creation of the new concept – focusing attention on the concepts of cooperation and cognitive marketing. Main idea: the subject of interrelations of marketing management is not the general solution, but the relationships (communications) between the clients and the other participants of the selling-buying processes. Main target on: the standard, style and technology of consuming, concerning both clients and competition. Providing: the long-term profit. Application: the instruments of the strategic marketing; marketing of the quality of life and business ethics – protection of customer's needs.
Concept-objective	Main features: research of the bank marketing subject. Main idea: usage of the marketing potentials in order to increase the investment attractiveness of the institutional entities, regions and country as a whole. Main target on: spatial marketing; internal marketing; costs of brand. Providing: the specified level of customer satisfaction; achieving the key marketing aims and tasks. Application: the marketing complex as a whole.
Concept-integral	Main features: holistic (integral) approach – determination of the complexity, nonlinear nature and integrity of the marketing system of bank management in terms of appearance of the interrelated financial markets, globalization, internet spreading and information-computer technologies. Main idea: the integration of marketing as the dominating bank activity. Main target on: the factors of competition advantage, response of the customers to the price changes. Providing: introduction of marketing administration strategies in all the functional branches of the bank – cooperation of the internal bank area. Application: marketing knowledge; intromarketing; international marketing; global marketing.

Source [2–18]: scientific works of the scholars on the explored topic

The performed research on the development of marketing approaches allows making a conclusion, that modern marketing, just like the theory and practice, starts and finishes with the satisfaction of the sufficiently differentiated customer needs – orientation on the niches. Agreeing with opinion of F. Kotler we determine, that the main idea of the niche marketing is to form the perfectly loyal customer of the banks products of services: "There are no more markets for products that partially appeal to everyone, there are only those markets for products, that fully appeal to someone [20, p.47].

In modern conditions of development, banks pay the prioritized attention to the marketing criteria, which allow revealing certain features of the buying cost of the product, namely: "needs" – they reasonably characterize the clients needs regardless of the evaluated product or service, "information" – relative assessment of the information about the product or service by the client, "quality rate" – the perspective of the needs in certain product or service and the "monetary rate" – the perspective of the quality rate on the price base.

According to our offered evolutional model of the major parts of the marketing, the concept of traditional marketing-mix (4-"P") is considered to be limited for the usage in modern banks, although it consists of elements and functions, which are the main parts of the marketing activities (Fig. 1).

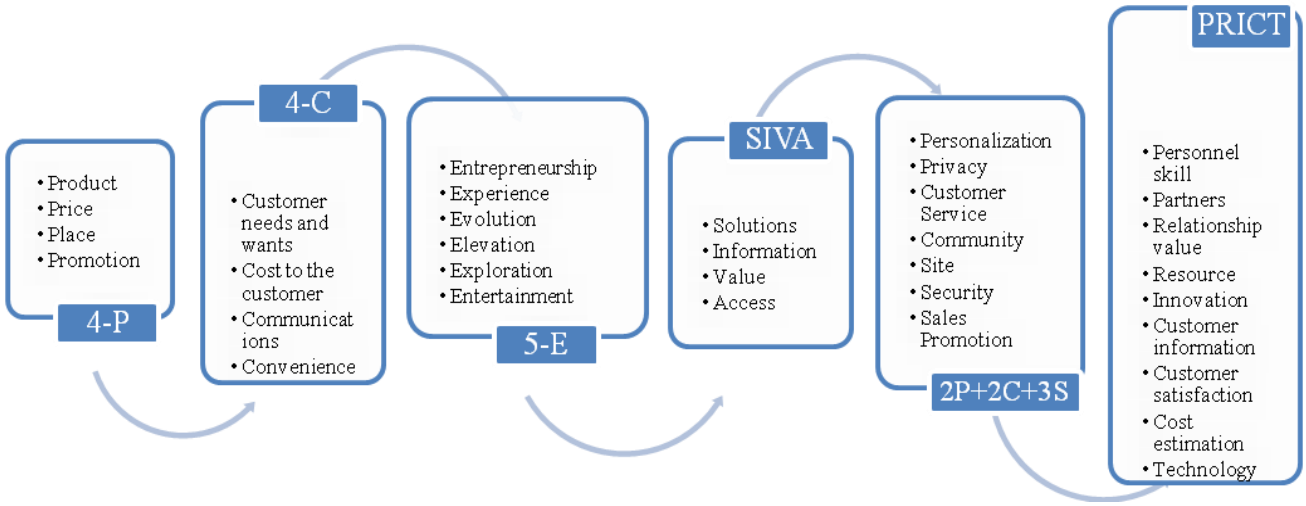

Fig. 1. Evolution of the major parts of marketing bank influence

Source [19–27]: composed by the author according to the scientific works of the leading scholars-economists

The violation of traditional marketing complex and the necessity of determination of new constructive elements of the marketing "PRICT", that we offer in this work, is connected with the reinforcement of the developmental value of the new informational, marketing and communicative technologies in the banking area, especially the active usage of the system of integrated delivery channels of the bank products, services and the virtual bank. The holders of the created value are those products and services, which are provided by the banking institution according to the customers demands. Providing the wide range of opportunities for collecting and processing the huge files of information, new marketing technologies allow creating new close trusting relationships with the clients, partners, shareholders and personnel, and also develop the new relationships with them. Therefore in our opinion the main task is to create the integrated marketing complex "PRICT" in order to prevent the lost of the value of products and services, providing the possession, retaining and increasing of the current level of the client values, which consist of the main sources of information and knowledge.

Hence the main features of the new marketing complex are the "innovations", "personnel professionalism", "customers satisfaction", "value", "interrelationships", "technologies", i.e. the basis for the fast and flexible initiative planning, which is based on the clients and the close trusting relationships with the partners. The development of the new marketing approach will allow the Ukrainian banks creation and implementation of the advancing evolutional strategies (Fig. 2).

According to the picture, the distinctive feature of the bank, which operates in unsteady marketing environment on the basis of marketing management, is the understanding that management is necessary not only for producing products and services, but is also the process of creation the value for the customer and all the participants of relationships, oriented on the horizontal processes – cross functional team work, statistical management of the processes, creation of the administrative structures "client-producer", structuring of the quality functions, creation of the mechanism for the usage of human factor (motivation; moral, psychological and financial stimulus) for increasing the labour effectiveness and quality of activity.

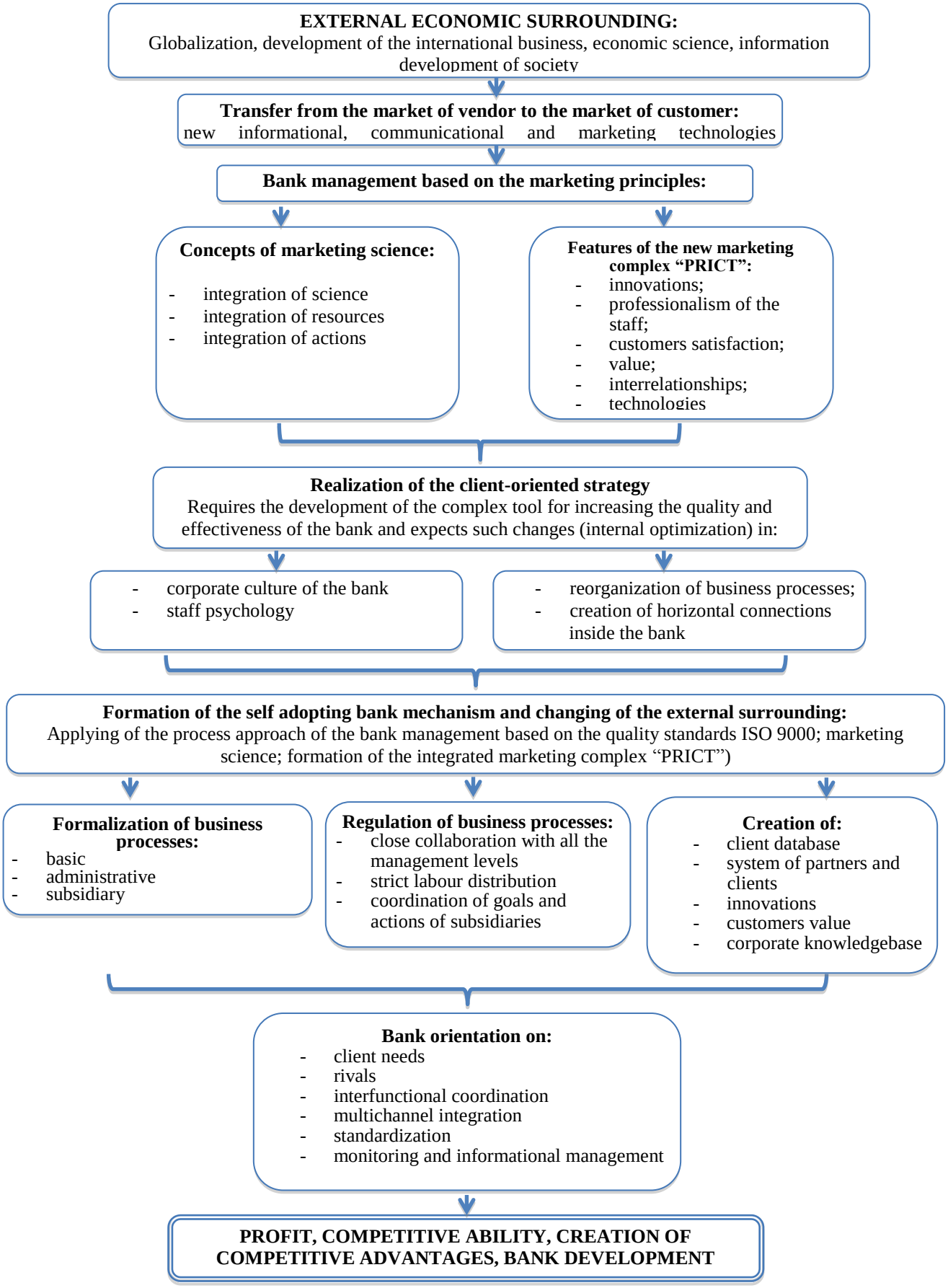

Fig. 2. Peculiarities of the bank operation on the marketing basis in terms of unstable marketing environment

Source: Composed by the author

The mechanism of principles formation is based on the usage of resources, because during the design and creation of the products and services it is proved to originate the purposeful change of the original on-exit features, that become useful for the customers. These changes happen in terms of informational moves concerning the performance of the business processes of the bank.

The appearance and development of informational systems in the bank are deeply connected with the invention of the internet and information-computer technologies, which are aimed to achieve and use the new knowledge (marketing knowledge) as the most important competitive advantage. In this case the globalization of economy accelerates the renovation and exchange of technologies and knowledge, overcoming the traditional geographical and political borders of the countries [24].

We apprehend the marketing science as the establishment of trusting partnership with bank, its personnel and clients during the cooperation in terms of virtual assess in order to gain the maximum profit [17], which has the following tasks: accumulation of intellectual capital; detection and spreading of the gained information and experience; creation of the preconditions for the knowledge spreading.

Management of the knowledge provides the formation of the bank policy by its leaders in terms of systematic gaining of the profit from the intellectual assets, which are based on the knowledge (professional qualities of the personnel, brand, client database, network of the partners and agents, corporate culture, quality of the business processes), i.e. formalization and access to the practical ownership of the expert data, that create the possibility to develop the functioning, stimulate innovations (creation of new products, services and business processes) and increasing of the customer value.

The process of integration provides the use of principles of marketing science: integration of the knowledge creating of the integrated informational model of the objects and processes of the bank activity); integrated approach to the formation of the parts of the marketing complex (providing the dynamics through the organization of the feedback); integration of resources (rational usage of informational, financial, material, labour resources taking into account the necessity of realization of the processes in order to achieve bank aims); integration of the actions (effective organization, coordination and creating of new processes and procedures for performing of the functions of different bank services).

Deep structural changes in the global economy, which are connected with development of international business result in integration of separate, geographically different markets; unification of commercial and customer area, and provide the transformation of the basic principles of marketing activity in the bank. The result of implementation of the new managing tools of marketing information in the bank is the realization of more thoughtful policy of attraction, retention and development of the clients, that provide the evaluation of the "cost" of lost clients, determination of the most interesting categories of clients in the real-time environment, application of the individual approach to the client, opportunity to reach the international markets with the minimal spending.

5. Conclusion. The perspectives for future research

According to our research we can make a conclusion, that:

1. Globalization promotes the reinforcement of the competition and creation of double preconditions for the appearance of the global marketing – development and realization of the strategy of global competitiveness according to the marketing potential of the bank; orientation on the global market as a target segment, that is similar enough among the countries and regions – the application of standardized tools of marketing influence on clients in order to gain the part of the global market, to broaden the survival abilities in the competitive area.
2. Realization of the bank managing functions based on the performance of the marketing science is possible in terms of: gaining and adaptation of global knowledge – education and development

of the learning area at the governmental level; investments into the humans fund, providing the mastering (creation of conditions in order to study during the whole life) and use of knowledge and technologies (for creating the opportunities of achievement and performance of scientific research) of transfer (use of the new information and telecommunication technologies; the appropriate legal control, providing the access to information resources) and gaining the knowledge.

3. The main aim of the integrational processes of marketing in bank is predomination in order to accelerate development and implementation of the new product and services, directly connected with the information technologies, to enlarge the use of virtual trade channels – transition of the banks to creation of the virtual branches, increasing of the quality of services with the help of standardized approach of task performance by the bank personnel.
4. The development and use of the "PRICT" marketing complex will in many ways depend on the abilities of automatic systems (ABS) to provide the high-quality bank management with the help of effective bank processes.

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Summary

The article determines the concept approaches on the marketing management in the bank institution. There was explored the evolution of the main parts of the marketing influence on the bank. There was provided the model of application of the new marketing complex “PRICT” in terms of information and innovative bank development.

There were determined the features of the new marketing complex and particular features of the bank functioning based on the marketing science in the market area. The results of the explored research can be used by modern banks while providing effective strategies of advanced development.

Keywords: globalization, integration, bank, information, technologies, marketing, complex, knowledge, value, customer, interrelations.

JEL classification: M310, G210

UD classification: 336.71:658.8

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CURRENT DIMENSIONS OF THE TRANSPORT POTENTIAL OF VARNA DISTRICT

Donka Zhelyazkova*

1. Introduction

Sustainable economic growth at regional level conditions the prosperity of a state, in this case Republic of Bulgaria, and the community into which it is integrated in the context of the European area. The hierarchic order of the territorial administrative units localizes their interdependence and suggests subordination to a carefully considered strategy which should contribute to the common goal consolidated around the initiative aimed at "smart, sustainable and inclusive growth" [1, p.2]. The Europe 2020 Strategy determines the leading role of transport and logistics systems through the "opportunities they offer for enabling the industry throughout the Union to have effective access to the Single Market and the international market beyond" [1, p.21]. This has given rise to the idea to outline the potential of Varna District which will allow it to fit properly in the European Transport Area by providing conditions for the development of modern transport solutions for connecting the various regions, towns and villages.

The objective of this paper is to outline the current state of the transportation alternatives developed in Varna District and stepping on this foundation to draw conclusions for each means of transport.

In order to achieve the objective thus set, the following main problems must be solved in relation to:

1. The study of the current dimensions of land, marine and air transport in Varna District.

2. Formulate conclusions as to the state of the various means of transportation.

Each administrative district is in itself "a deconcentrated structure of state administration…, which comprises one or more municipalities and is characterized by its territory, borders, population, name and administrative center" [2]. In the framework of this definition, Varna District has significance in national economy. Structurally its economy is highly diversified with the leading role of agriculture, shipbuilding and repair, food and manufacture of electrical appliances. Factories from the subsectors of metallurgy and machinery, chemicals, sewing, shoemaking, production of building materials, furniture, etc. have been built on the territory of the district. Of great significance for the local economy are transport, tourism and trade in view of the geographical location of the district at the western shore of the Black Sea, which makes it a multifunctional international transportation hub, an attractive destination for Bulgarian and foreign tourists and a center of attraction for traders of international, national and local significance.

The role of Varna District in the field of transportation is markedly fundamental in view of its key position in trans-European networks as an element in the current and future transport corridors and its excellent transport links which make the district an important logistics center boasting "the potential of the ferry lines through the Black Sea and the direct route which Varna offers to Ukraine, Russia, Georgia and Turkey" [3, p.6] and the rest of the countries in the Caucasus region, Near and Far East.

2. Current dimensions of land transport in Varna District

On the territory of the district there have been created and there exist infrastructural solutions which allow for the development of road, railway, marine, air and pipeline transportation, which is of strategic importance for the economy not only on the local, but also on the national and international scale. For transportation activities on the territory of Varna District, the necessary road and railway infrastructure has been created (Tab. 1).

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The development of the road network is related to the function of the town of Varna, which has resulted in the relatively large share of high-quality roads (27,2% for the district against the country average of 17,3%) [4, p.72]. Tertiary roads stand out for being the longest, and the shortest span goes to motorways, but we must bear in mind that "The classification of republican roads is done on the basis of administrative attributes and the technical specifications of the road and traffic intensity are not taken into account, with the exclusion of motorways" [5, p.8], but in terms of technical condition they are in line with art.1 of ORDINANCE no.1 of 26 May 2000 on road design which states: "Roads are sized in line with the estimated traffic intensity. It is determined as per the requirements of BSS 16578-87 "Motor roads. Determining traffic intensity" by using the active estimated coefficients approved by the executive director of the Road Infrastructure Agency. In the period of 2001–2012 on the territory of Varna District not a single kilometer of motorway, primary roads, secondary roads or railways was built. The transport map of Bulgaria shows the new 213 km of motorways, but the length of first-class and second-class roads is reported to have been reduced. Statistics shows that only 19 km new tertiary roads have been built and railway length has been reduced by 29 km.

The indicators of the density of the transport network, which are the major measurement of the infrastructure development, are almost constant. They gravitate towards the average values for the country – as at 2012 the motorway density at national level is 0,005 km/km2, and for Varna District – 0,015 km/km2; primary roads density in the district is higher than the average for Bulgaria by 0,008 km/km2; with secondary roads at national level the indicator for 2012 is 0,036 km/km2, while at regional level its value remains constant at 0,011 km/km2; tertiary roads at national level are approximately 0,109 km/km2, and at district level they are higher by 0,016 km/km2. The railway network indicators are higher than those for the country, which are 0,037 km/km2, while for Varna they are 0,051 km/km2.

The overall evaluation of the state of the republican road network in Varna District is "closer to good" since two-thirds of the road network are in good or average condition [6, p.57] and the road network of District Varna is characterized by the accessibility of the district capital from municipalities. The main role in this respect is played by Hemus Motorway on the entire territory of Varna District, as well as the rehabilitation of the motorway. Next comes Cherno More Motorway as part of the Black Sea motorway ring on the territory of Republic of Bulgaria and pan-European transport corridor VIII. The motorway is expected to ease the transportation between the Black Sea towns of Varna and Burgas.

Besides the territory of the district it might also be appropriate to consider the size of the population as an influential factor in the evaluation of the completeness of the transport infrastructure. The availability of roads for the population by types of roads shows a certain dynamics influenced by the changes in the number of people because the length of the roads has remained constant as it was already mentioned. For this indicator Varna District falls behind the national results for 2012 as follows: as to the degree of availability of primary roads, the district lags behind with its 1,233 km per 10 000 people; as to the degree of availability of secondary roads with 3,198 km per 10 000 people, the degree of availability of tertiary roads with 6,473 km per 10 000 people, and there is 0,482 km more motorways at district level than the results reported at national level.

This study aspect is of strategic importance since the population of Varna is growing progressively but not due to high-intensity factors, such as the positive population growth, but rather it is the result of the extensive influence of migration processes typical for the district. The concentration of the population in the district capital Varna is productive from economic point of view in relation mainly to salary levels and opportunities to exercising the right to employment. In the beginning of the XXI century our sea capital is titled one of the fastest growing towns in Europe with mechanical growth of 30 000 people a year, which exerts extra pressure on transport infrastructure and poses new problems related to traffic organization, parking spaces availability, amortization of roads, concentration of traffic incidents, etc.

Tab. 1. Indicators of density and availability of transport network in Varna District for the period 2001–2012

Indicators	Years											
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Motorways length (km)	58	58	58	58	58	58	58	58	58	58	58	58
Primary roads length (km)	135	135	135	135	135	135	135	135	135	135	135	135
Secondary roads length (km)	42	42	42	42	42	42	42	42	42	42	42	42
Tertiary roads length (km)	458	476	477	477	477	477	477	477	477	477	477	477
Railways length (km)	222	219	219	219	219	195	194	193	193	193	193	193
Motorway density (km/1000km^2 territory)	15,185	15,185	15,185	15,185	15,185	15,185	15,185	15,185	15,185	15,185	15,185	15,185
Primary roads density (km/1000km^2 territory)	35,345	35,345	35,345	35,345	35,345	35,345	35,345	35,345	35,345	35,345	35,345	35,345
Secondary roads density (km/1000km^2 territory)	10,996	10,996	10,996	10,996	10,996	10,996	10,996	10,996	10,996	10,996	10,996	10,996
Tertiary roads density (km/1000km^2 territory)	119,911	124,624	124,885	124,885	124,885	124,885	124,885	124,885	124,885	124,885	124,885	124,885
Railways density (km/1000km^2 territory)	58,123	57,337	57,337	57,337	57,337	51,054	50,792	50,530	50,530	50,530	50,530	50,530
Degree of availability of motorways (km/10 000 people)	1,255	1,261	1,265	1,265	1,267	1,269	1,262	1,252	1,246	1,247	1,223	1,225
Degree of availability of primary roads (km/10 000 people)	2,922	2,935	2,943	2,945	2,948	2,955	2,937	2,914	2,900	2,903	2,846	2,852
Degree of availability of secondary roads (km/10 000 people)	0,909	0,913	0,916	0,916	0,917	0,919	0,914	0,907	0,902	0,903	0,885	0,887
Degree of availability of tertiary roads (km/10 000 people)	9,913	10,348	10,400	10,406	10,417	10,440	10,378	10,297	10,248	10,256	10,056	10,076
Degree of availability of railways (km/10 000 people)	4,805	4,761	4,775	4,778	4,782	4,268	4,221	4,166	4,146	4,150	4,069	4,077

Source: DB of Territorial Statistics Bureau Varna with the National Statistics Institute.

Railway transport is not much different from road transport in terms of measured results of infrastructure availability. The degree of availability at national level exceeds the values of this indicator for Varna by 1,512 km / 10 000 people. The systematized data for railway transport show another adverse effect on reported results, namely the reduction of the railway tracks, i.e. not only isn't there construction of new tracks, but also existing tracks are being closed down, which is counter to the European transport policy, as well as to the advantages offered by this means of transportation. These findings are worrying in view of the strategic importance of the district as a transportation hub, which by means of the Sofia-Varna railway provides a link to all destinations in North Bulgaria. It connects the territory of Varna District with the railway tracks to Ruse, which is of great significance to the cargo transportation from Ruse to Varna Port. The third railway track – Karnobat-Sindel – ensures the links between Southeast Bulgaria and South Bulgaria and is generally part of pan-European Transport Corridor VIII within its railway infrastructure. In the near future a major rehabilitation of the road and railway network and a connection between Varna and Burgas by means of a high-speed road or motorway are expected, which presupposes significant improvement of transportation links in the district, but serious investment projects related to marine and air transport should be considered for implementation on the territory of Varna District.

3. Current dimensions of marine and air transport in Varna District

In view of the geographical location of Varna, marine transport is defined as strategically significant and therefore Varna Port is structurally determining for the transport sector in Bulgaria and its development is subordinate to a policy of continuous investment in modernization and technological development and improvement of working conditions. Varna is a multi-purpose port with modern technology and specialized terminals, running continuously, where all kinds of cargo are handled, including liquid. The main cargo turnover of the port is realized by handling grain, containers, chemical and general cargoes. With the volume of precisely these cargoes Varna Port is unmistakably the leader in Bulgaria and over the past years has registered growth, though inconsistent, both in relation to cargo turnover and in relation to the dynamics of handled cargoes (see Tab. 2 and Fig. 1). The most significant changes registered are in relation to the containers passing through Varna Port compared with the beginning of the period. Their number has been increasing through the years and at the end of the period it is three times as great as in the beginning of the period, and despite these results being still far from those registered in the peak year 2008, they correspond to the expectations that "container transport through Varna Port has the potential for increasing before 2020 up to 4 million tons or 406 thousand TEU" [7, p.2].

Tab. 2. Major indicators of the activities of Varna Port EAD for the period 2001–2013

Years	Cargo turnover	Containers	Grain
	tons	TEU	tons
2013	10 695 084	131 460	4 140 046
2012	8 589 000	128 390	2 317 940
2011	8 779 000	122 844	2 254 513
2010	7 634 000	118 702	1 993 018
2009	6 475 000	112 611	1 988 320
2008	7 539 000	155 326	1 335 501
2007	6 427 000	99 713	388 674
2006	7 570 000	94 046	1 433 498
2005	8 231 000	84 000	1 463 628
2004	7 320 000	78 599	859 889
2003	6 516 000	65 063	400 173
2002	6 534 000	59 061	1 205 272
2001	5 848 000	45 489	388 103

Source: Varna Port EAD http://www.port-varna.bg/index.php?l=2&m=1&p=6 (accessed on 13 May 2014)

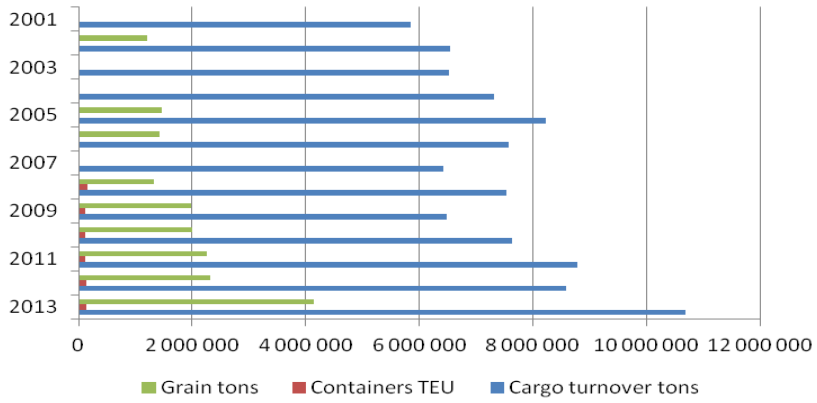

Fig. 1. Dynamics of the development of the main indicators of the activity of Varna Port EAD in the period 2001–2013

The future development of Varna Port is expected to unfold according to two main scenarios, one of which is optimistic in terms of cargo carriage and namely of containers, which is expected to grow, which necessitates the opening of a new terminal in order to gain competitive advantages over the port in Constantza in Romania.. The other scenario estimates the position of the Romanian port as strong in the segment of container carriage and builds the future of Varna in relation to one of the most radical urban development ideas underlying the general development plan of Varna, which envisages in place of the current port to have a recreation and entertainment zone, as well as a yacht marina. Both alternatives paint a picture of favourable development prospects for marine transport in Varna, one emphasizing cargo carriage, the other – passenger, which are also realized by air transport and which in terms of infrastructure is provided for by the third biggest airport in Bulgaria (following Sofia and Burgas) – Varna Airport.

The airport is located 8 km west of the sea capital and on the territories of Varna and Aksakovo municipalities. Varna Airport was opened in 1948, and since 2006 it has been given in concession for 35 years to a German-Bulgarian consortium, in which 60% of the shares belong to the leading airport operator Fraport AG.Typical of the traffic of this airport is that most of it is realized during summer since the airport is close to a large number of popular sea resorts visited by Bulgarian and foreign tourists (Fig. 2).

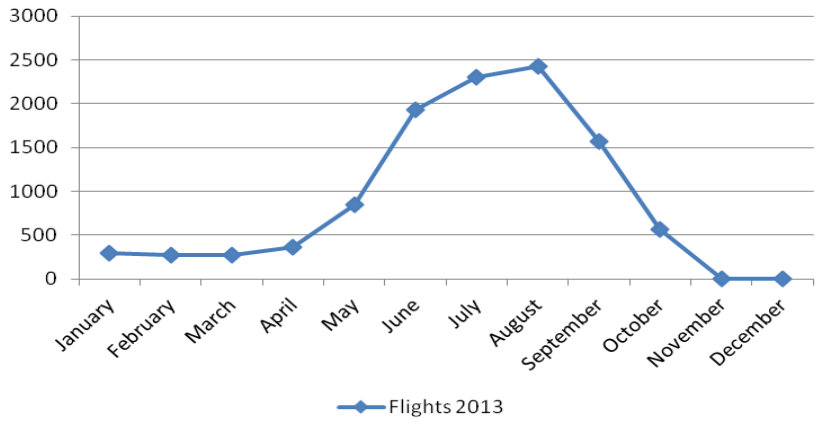

Fig. 2. Dynamics of the development of flights handled in Varna Airport in 2013

Source: http://www.fraport-bulgaria.com/RecentInformation/Statistics/Monthly/tabid/157/language/bg-BG/Default.aspx (accessed on 11 May 2014).

The airport services more than 100 destinations in 57 countries. There are four airline companies operating permanently – BulgariaAir, Wizzair, AustrianAirlines and S7 Airlines. The regular summer lines are carried out by 12 airlines including AirBerlin, NorwegianAirShuttle, Jetairfly, UralAirlines, Germanwings, EdelweissAir. Chartered flights to and from Varna are carried out by

43 companies, the most notable ones being BH Air, Belavia, Finnair, Globus, Jettime, LOT, MalmoAviation, Red Wings, SAS, Transaero, VIM Airlines, XL Airways, etc. In 2013 Varna Airport served 10 839 flights, and 1 303 865 passengers, mainly in chartered flights (Tab. 3).

Table 3. Dynamics in the development of passenger traffic at Varna Airport in the period 2001–2013

Years	Domestic traffic	Chain changes in %	International traffic	Chain changes in %	Total	Chain changes in %
2001	48121	~	884428	~	932549	~
2002	45457	5,536	1045252	-18,1840	1090709	-16,960
2003	41583	8,522	1144766	-9,5206	1186349	-8,769
2004	47575	-14,410	1271552	-11,0753	1319127	-11,192
2005	49705	-4,477	1496175	-17,6653	1546925	-17,269
2006	54243	-9,130	1468415	1,8554	1522658	1,569
2007	79058	-45,748	1399035	4,7248	1478093	2,927
2008	119459	-51,103	1313244	6,1322	1432703	3,071
2009	155734	-30,366	1050801	19,9843	1206535	15,786
2010	154974	0,488	1043982	0,6489	1198956	0,628
2011	117431	24,225	1046453	-0,2367	1163884	2,925
2012	126952	-8,108	1084244	-3,6113	1211196	-4,065
2013	131183	-3,333	1172682	-8,1567	1303865	-7,651

In relation to cargo carriage the airport has failed to register significant results through the years, for which Fraport AG has published data (Fig. 3), which is evident also from the relative share of this indicator in the total cargo turnover of the airport operator, which is within the range of 0.001 to 0.003%. However, this can be seen as a serious indication of the possibilities that exist in this respect.

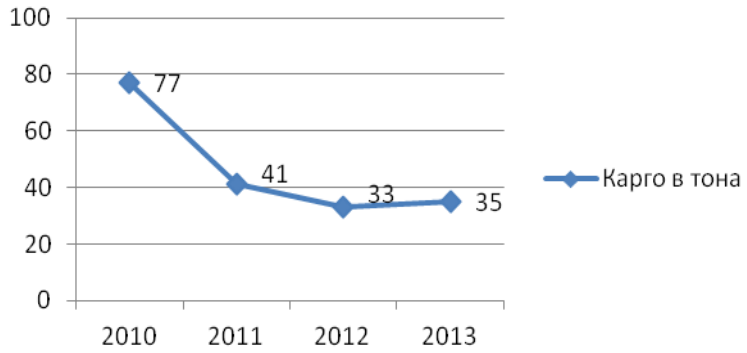

Fig. 3. Dynamics of the development of cargo carriage carried out through Varna Airport

Source: http://www.fraport.com/en/investor-relations/financial-and-air-traffic-figures/traffic-figures.html (accessed on 21 May 2014).

4. Conclusion

The current state of the transport potential of Varna District during the studied period shows a road network sufficient for the district in view of the fact that it provides for good accessibility of the district capital from its municipalities. The measured indicators of transport network density are almost constant values and gravitate around the average values for the country by taking into consideration the dynamics of the indicators of availability of the transport network for the population of Varna District, which is influenced by the mechanic growth of the population, since

the length of the roads was found to have not changed. In terms of marine transport it can be pointed out that Varna Port and the respective transport infrastructure should attract a certain investment activity, since its role in the future has transit function and it will connect the European Union and the countries in Central Asia, Near, Middle and Far East, as well as the countries around the Black Sea basin. The air transport carried out by Varna Airport shows potential for development which remains unused especially with regard to cargo carriage. It is reasonable to say that Varna has its place in the common European Transport Area, but we must not ignore the need to increase the degree of completeness and availability of the transport network on the territory of the district, as well as to boost the role of marine and air transport as excellent alternatives for cargo and passenger carriage.

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Summary

This paper outlines the current state of the transport potential of Varna District by types of transport. In this context the infrastructural availability for road transport is sufficient, the values of the indicators of the transport network density are constant and gravitate around the average for Bulgaria. In the end we draw the conclusion that Varna has its place in the common European Transport Area, but we must not ignore the serious challenges which transport is facing and which are accompanying its development on the territory of the district.

Keywords: transport, infrastructure, transport potential.

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