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Table of Contents

THE EFFECT OF GLOBALIZATION TO THE WORLD POVERTY AND ECONOMIC INEQUALITY Irena ANDREEVSKA.....	5
THE RELATIONSHIP BETWEEN TQM AND ORGANIC PRODUCTION: OPPORTUNITY FOR ASSOCIATIONS OF PRODUCERS OF ORGANIC PRODUCTS IN REPUBLIC OF MACEDONIA Katerina HADZI NAUMOVA – MIHAJLOVSKA, Natasha DANILOSKA	16
LEADERSHIP STYLES AND ORGANIZATIONAL CULTURE IN MACEDONIAN COMPANIES Ninko KOSTOVSKI, Marjan BOJADJIEV, Katerina BULDIOSKA	33
LEVEL OF CUSTOMER SATISFACTION FROM ELECTRONIC BANKING SERVICES IN THE POLOG REGION Dashmir SAITI, Martin KISELICKI, Saso JOSIMOVSKI	45
IMPLEMENTATION OF INTERNET TECHNOLOGIES IN THE SUPPLY CHAIN OF SMES IN MACEDONIA Martin KISELICKI, Saso JOSIMOVSKI, Ljupce JONCHESKI	69

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**THE EFFECT OF GLOBALIZATION TO THE WORLD POVERTY AND
ECONOMIC INEQUALITY**

Irena ANDREESKA, PhD¹

ABSTRACT

The process of globalization as a form of various types of connections between nations and countries in economic, political, cultural and every other way, has begun long ago. This process is natural and unstoppable. What is disputed is the way the current contenders for ruling the world, by its own recipe and old plans, even similar to many previous winners, want to see that happen. Those are modernized plans to create a new world order with obedient countries without sovereignty and without national identity. The abovementioned contradictions could be considered as a relation between "economic freedom and slavery in the modern world²".

This paper discusses the issue of realistic interpretation of poverty and economic inequality in the countries as a result of globalization. The facts about global international institutions such as the IMF (International Monetary Fund), World Bank and the UN (the United Nations) will also be analysed. The research is based on the analysis about globalization and development strategies in the developed and undeveloped countries. Basic Capability Index (BCI) is also included as a measures which averages infant mortality rates, the number of births attended by trained personnel and enrollment rates in primary school.

KEYWORDS: inequality, poverty, globalization, IMF, World Bank, United Nations

JEL CLASSIFICATION: F60, F62

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²Mitrovic Lj. Ekonomske teme, Nis, 2001

INTRODUCTION

The most widely understood, the term globalization encompasses the notion of a world of Earth, interconnected world, whose parts (states, regions and wide areas) are mutually dependent and networked in a global system of economic, cultural, political, scientific, technological and all other aspects of modern life. The term globalization still presupposes the existence of a world without conflicts, conflicting interests, perfectly safe, world in which all people and nations are free to decide their own future and destiny, as well as relations with other nations. In a globalized world natural and other resources are used and acquired with work and accordingly belong to all. Globalization excludes any kind of discrimination on national, religious or racial affiliation of the people, and every kind of exploitation, humiliation and intolerance. The benefits of science, culture and other forms of human creativity are available to all people and nations. That kind of world is mutually dependent and connected with strong threads of universal significance and presents the general flow of humanity. That is the first understanding of globalization, where it's face has been seen and imagined ideal and perfect. Unfortunately, this kind of understanding is formulated as an unrealistic, idealistic concept of the modern world and its reality. This reality today is almost all opposite to the above mentioned understanding of globalization. It has its own character, which the new world order strategists use as an ideological basis for the realization of its strategic interests and objectives.

Inequality as a product of globalization exists in all spheres of economic, political and social life. It expresses differences between individuals, households or social groups in a society and it is influenced by personal capabilities of individuals and inherited rights. Inequality inevitably exist in every social system, regardless of its ideological inclinations, but it particularly gets a significance and is under special observation of the public in terms of transition, when the changes in economic and political spheres have the consequence of increasing inequality.

In this paper, the category "economic inequality" means inequality in the distribution of income of individuals or households, but for simplification, the mostly used term through the text is the term "inequality".

1. Poverty and economic inequality versus world capitalist class

In the times of globalization almost all nations become kind of exploited class and mass, with disrupted elementary living conditions. World poverty is real and wide social and existential category. On the opposite side, world capitalist class grows and unites the global control elite.

Because of these findings, in the UNCTAD analysis titled "Globalization and Development Strategies" it is insisted on finding new management models for world economy, the strategy which equates efficiency with equality and the concern for economic growth with concern for the social care progress. The conclusion of this analysis is that the time has come to shape a new consensus on the issue of development, in which center should be placed people as humans. It is also necessary a real democracy to be a part of that consensus³.

2. Economic inequality within countries and the formula of neoliberalism

During the last years of the 20-th century economies of many countries have experienced a debacle, immediately after their leaders were praised by the global political elite for keeping up with the right economical direction. Dramatic growth rates in these cases seems to have been led with speculative short term capital flow that has increased local assets, thus creating a great number of people feeling rich for certain period of time. However, that lasted for a short period of time, and later these countries were blamed for "partnership capitalism" by the political elite. Regardless the reasons for these failures, the main concern is the evident growth in inequality within countries, especially non-developed ones. The increase of inequality in the developed countries is justified as a price that has to be paid for transition from stable rural society into dynamic urban society.

³World Bank Annual Report 2014

For those who represent faster deregulation of global economy- politics behind the etiquette "neoliberalism", "Anglo-American model", "Washington consensus", continual and increasing inequality, until lately have been only a modest imperfection within one otherwise cute picture of market prosperity⁴.

Neoliberal consensus provides basis for salary reduction on behalf of development and economic stability. In order to achieve that, labor market liberalization is more than necessary. It can be done by labor price reduction, ban on salary adjustment towards productivity increase and costs of living, and abolishment on minimal income law. The aim is to stop "the inflation hit as a result of salary increase."

3. The gap in the development levels between countries

One of the dogmas of neoliberal theory which is the essential part of the economic globalization is that inequality in the gross domestic product division should not be limited, that it is a natural consequence of the market and that it provides bigger capital accumulation. However, these theses have never gained an empirical confirmation in a whole chain of cases for which they were set. As Stiglic states⁵, South Korea, China, Taiwan and Japan prove that "high" accumulation of capital"... does not require dramatic inequalities among countries...".

The point is that in the world system, the most developed countries have the monopole of directing the prices of raw materials and everything else imported from the undeveloped countries. Latter it is impossible to run away from their "debts" and from almost every kind of economical, technological and political dependence. Here prevails the logic that globalization does not reduce, on the contrary, it increases the gap in development levels between the rich and the poor countries.

Where this deeply polarized and antagonized world is heading is second, but still very important issue. However, remains the question what these countries should do (more precisely three quarters in the world) if they were not in this kind of a position for a long period of time, starting from the foundation of development politics till the

⁴Daerty, E. Jon, WorldNet Daily, 2013

⁵Stiglitz E. Dzozeff, Globalization and it's discontents, w.w. norton & company, New York, 2002

moment of creating resistance towards the existence of the exclusive “club” of the most powerful and most developed countries.

4. Eradicating poverty by lowering the bar

World Bank statistics, using a definition of poverty based only on income and with a very low extreme poverty line (currently estimated at USD 1.25/day)⁶ substantiates the claim that the first Millennium Development Goal was already achieved in 2010, primarily due to poverty reduction in China. Yet, while extreme poverty so defined is the key aspect in all assessments of the MDGs, 75 of the 161 countries categorized as “developing” lack available data to assess progress on this indicator. If the approach was successful, goes the implicit logic, it makes sense to continue it beyond 2015, the year in which the MDGs are meant to be reached, with a small set of goals centered around poverty eradication and a target of “zero poverty in a generation,” that is, by 2030. This is precisely what the World Bank has already decided it would do. In fact, several studies show that the speed of progress towards several key indicators, such as reducing infant mortality or reaching gender parity on primary school enrollment, has slowed down since 2000, rather than being boosted by the political commitment expressed in the MDGs. Total world exports multiplied almost five times over the last 20 years, growing from a total value of USD 781 billion in 1990 to USD 3.7 trillion in 2010. Over the same period, the average income of the world’s average inhabitant more than doubled, from USD 4,080 per year in 1990 to USD 9,120 in 2010. Yet the growth in trade and wealth is not reflected in similar progress along social indicators. The Basic Capabilities Index (BCI) computed by Social Watch, which averages infant mortality rates, the number of births attended by trained personnel and enrollment rates in primary school, all key components of the MDGs, moved up only 7 percentage points between 1990 and 2010, which is very little progress. And over this period, progress was faster in the first decade than the second – increasing over four percentage points between 1990 and 2000 and of barely three percentage points

⁶ www.socialwatchreport.com

between 2000 and 2010. This trend is the opposite of that for trade and income, both of which grew faster after 2000 than in the previous decade. Moreover, slowing progress on social indicators will only get worse as the impact of the global financial, economic food and energy crisis is gradually being registered in internationally comparable statistics.

The obvious explanation of this mismatch between a growing economy and slow social progress is increased inequalities, both between and within countries. The distinction between "absolute poverty" in low-income developing countries and that of "relative poverty" in advanced economies was formulated in 1973 by Robert McNamara, then president of the World Bank, and the absolute poverty line was set at 30 cents of the US dollar per day. Adjusted for inflation, 30 cents in 1973 amounts to USD 1.60 in today's dollars. Yet the current line, is now USD 1.25, hardly enough for "the elimination of malnutrition and illiteracy, the reduction of infant mortality, and the raising of life-expectancy standards to those of the developed nations" as envisioned in 1973. It might merely keep a person from starving, which is the new definition of "extreme poverty. "According to the World Bank's own projections, it is likely that the proportion of people under the USD 1.25 line will be less than 10% by 2030 if current growth rates are maintained and inequality does not worsen. The message to the governments of the world is, therefore, that nothing needs to change to win this war. So why are we not celebrating? People around the world do not rejoice because the poverty they experience and perceive is not the same as that measured by the Bank, one that remains fixed even as people rise above it. The founder of modern economics, Adam Smith, wrote in the 18th century that "by necessities I understand, not only the commodities which are indispensably necessary for the support of life, but whatever the custom of the country renders it indecent for creditable people, even of the lowest order, to be without..." At a time when technological change occurs faster than it did 80 years ago, it makes little sense not to allow the poverty line to increase with actual wealth, but to freeze it at the levels established in 1973, adjusted below the inflation rate. If the poverty line moved according to income, and if we assume that the very

low USD 1/day line was correct in 1990 (the baseline date for MDG1), this line should currently be located far above USD 2/day, as the world per capita income has more than doubled between 1990 and 2010⁷. Which means that a much larger proportion of the world's population than what the World Bank estimates lives below "essential decency". Yet to substantially improve their lives would still be an achievable goal, since average global income now equals about USD 30 per day per person.

Does it make any sense to raise the bar of development objectives when the major advanced economies are in recession or growing very slowly? Won't the public in those countries reject the notion of spending more abroad when austerity is cutting down social expenditures at home? For a global agenda to obtain the public's support, which is at the root of political commitment, both the poverty extremes and the inequalities that account for mass mobilizations from the "indignados" of Europe to the Arab Spring to the Occupy movement in the US, need to be addressed.

Will the global community today be able to agree on such an ambitious agenda? If the non-starvation level as defined by the "extreme poverty" line is inadequate, how can "essential decency" be defined internationally? As early as in 1948, the Universal Declaration of Human Rights combined both the aspiration of freedom from fear and freedom of want. With the exception of sustainability, which can be constructed as the rights of future generations, all other goals are already spelled out in the Human Rights instruments. This includes all civil and political rights, equality between women and men, rights of the child as well as the right to food, water, housing, health care education, the right to work and rights at work, and the right to social security. Each state is responsible to progressively achieving those rights "to the maximum of available resources." For a rights-based approach the question is not what the goal is, because the goals are already spelled out as rights, but *when* will they be progressively realized (and governments should ensure that there is no regression, even in times of economic crisis).

⁷ www.socialwatchreport.com

THE ROAD AHEAD: MONITORING AND ACCOUNTABILITY

In a letter to the negotiators preparing for the Rio+20 Summit on sustainable development, two dozen special rapporteurs of the UN Council, the globally most trusted independent experts on Human Rights, expressed that “commitments will remain empty promises without effective monitoring and accountability.”

Such accountability should be both international and domestic. Moreover, monitoring should be carried out through the Universal Periodic Review of the Human Rights Council or a similar ad hoc mechanism. Nationally, independent monitoring bodies should be created or strengthened “that enable civil society participation not only in defining the indicators to measure progress, but also in providing information to evaluate implementation.”

In a highly unequal world, “mutual accountability” as defined in the aid agenda is not an appropriate mechanism. Monitoring developing countries’ performance should not be handed to donors or carried out within a donor-recipient framework. It should be the role of the carefully balanced human rights mechanisms. Unless a set of rigorous monitoring and accountability mechanisms are integrated into the new framework, we are likely to witness an ineffectual development agenda that fails to deliver.

CONCLUSION

Putting maximum efforts in using personal strengths, fertilizing personal resources and the effective development strategy, subjugate participation in globalization in a way which is the most suitable in the current, cruel context of the world power, and it is maybe the only possible path to get away from the obsolescence, inequality and poverty.

Global problems require global solutions. They could be found only in one real integrating process which strives towards transformation of the international financial and monetary architecture, a process where all world countries can participate. New regulatory construction should be based on the principles of equality, regularity and sustainability. According to this, United Nations (UN) is a unique existing legitimate forum that can solve financial crises. UN can put an effort all countries in the world to be strictly presented as democratic countries incorporated in the process of effective transformation.

European Union has an active role in recognizing deficiencies in the current economic system. In its acknowledged role as a leading judge for sustainable development and a fight against poverty in all parts of the world, it has the responsibility to provide the outcome of any change in global financial systems, to incorporate development liabilities completely, as well as the principles upon which it is based. European Union must separately define the following crucial issues that will contribute to a better international financial architecture:

- a) Providing public accountability and transparency in the working processes of the international financial institutions
- b) Stopping high hedge funds, funds for real estate investment and other similar financial products with high level of risk, with the aim to limit their negative macroeconomic effects
- c) Closing secret jurisdiction, the system of shadow banking and offshore financial centers, as a way to eliminate border tax evasion and loss of capital. This will dramatically limit further tax evasion. Such practices raise excessive funds,

necessary for sustainable development. Finally, an international tax organization needs to be formed under the auspices of UN for democratic control of taxing, i.e. for fighting against tax concealment and capital flight from countries

- d) Providing respect, protection, prevention and fulfilment of the universal human rights and liabilities.
- e) Guaranteed participation of all countries in negotiations among international financial and monetary institutions, with UN as a mediator in the process for transformation of financial institutions, with the aim to implement an equal, sustainable, financial architecture with strong democratic prevalence and participation of developing countries in the process of decision making, including equal voting rights (i.e. through introducing a double majority in the World bank and IMF)

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THE RELATIONSHIP BETWEEN TQM AND ORGANIC PRODUCTION:
OPPORTUNITY FOR ASSOCIATIONS OF PRODUCERS OF ORGANIC
PRODUCTS IN REPUBLIC OF MACEDONIA

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ABSTRACT

Organic agricultural production in the Republic of Macedonia is recognized as an approach to sustainable development, which at the same time gives a good quality and safe products. Due to the excellent conditions for its development, it has intense growth in the country. Producers are united by a very important denominator that is certifying the method and procedure of producing organic products so the quality of the product is indisputable. Nevertheless, they are facing problems, such as insufficient quantity for sale and poor market organization. In their struggle to overcome these challenges, Macedonian producers of organic products have established many associations.

On the contrary, total quality management (TQM) have proven very valuable to companies and organizations as an integrative approach anchored in the belief that long-term success depends on a unique/single commitment to quality in all departments of an organization. Therefore, this paper attempts to explore the possibility to relate TQM to organic agriculture in order to show a new approach to management whose base is the multidimensionality of the quality and its operation and function in all spheres of work in the associations of organic farmers in Republic of Macedonia.

KEYWORDS: TQM, organic production, associations, producers of organic products, Republic of Macedonia

JEL CLASSIFICATION: Q12; Q13

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INTRODUCTION

In the Republic of Macedonia organic agriculture is regarded as important to the development of the national agriculture and food production, which at the same time is environmentally sustainable and can generate many positive impacts to rural areas and the society in general. Practice shows that Macedonian organic farmers consistently comply with the rules and procedures for organic production, but they face serious problems in their performance and continuous presence on the market. As a response to these challenges and in order to find a relevant form that will simultaneously affect a larger group of producers, Macedonian organic farmers started an establishment of associations for which there is a formal legal framework in the country.³ Associations of organic farmers, unlike other types of agricultural associations, are united by a very important denominator that is a compulsory certification of the method and procedure of producing organic products so the quality of the product is indisputable. However, the sale of the Macedonian organic products is uncertain due to the disorganized export, followed by the inadequate organization of the organic farmers' association. In terms of managing these issues, there emerges the need for a new approach to management whose base is the multidimensionality of the quality and its operation and function in all spheres of social life. By applying the concept of Total Quality Management (TQM) as a way of organizing and as an innovative management tool, the organic farmers' associations will acquire capacity to improve the organization and to win and maintain the market, thus achieving a recognizable brand, and a higher level of development.

The main objective of the paper is to explore the relationship between TQM and organic agricultural production in order to show an approach to management which shall provide improvement and progress in work and organization of Macedonian organic farmers' association. Research subject of the paper is the link between the concepts of organic production and TQM analyzed as an opportunity to improve the

³ Official Gazette No. 52, 16.4.2010

work and organization of associations of organic farmers. For that purpose, the research in the paper is based on analysis of data obtained through interviews with the members of associations of organic farmers in the Republic of Macedonia.⁴ This paper will focus on issues related to the determination and knowledge of the members of the associations of organic farmers.

1. THE ESSENCE AND CHARACTERISTICS OF TQM

Total Quality Management (TQM) is a management philosophy started with simple inspection, where workers check the finished products visually and any poor quality product found are to be scrapped, reworked or sold cheaply. The quality was verified by full time inspectors that included written specifications, measurement and standard roles, but people recognized that quality issues need to be addressed at a wider scale, i.e. changing from detection to prevention, which required a set of quality management tools and techniques and also include interaction between all components of the organization as well as the components themselves. This concept, the concept of TQM, goes far beyond the quality of production, expands in all departments and acquires a new dimension, not only regarding the quality of the products but also the quality of work and organization of work. In order to meet the needs and requirements of the customers, TQM investigates various initiatives in the field of quality and integrate employees with the highest efficiency in operations of the company in every aspect. It is the process of creating a state that quality is care and responsibility of all and that is achieved through total commitment, continuous improvement and advancement in all aspects of operations.

Crosby, Deming, Feigenbaum, Ishikawa and Juran are considered as the most important gurus of the TQM movements. They have largely absorbed and synthesized each other ideas and all believe that management and the system are the cause of

⁴ Hadzi Naumova-Mihajlovska K., "Opportunities and prospects for application of TQM into association's producers of organic products in the Republic of Macedonia", Doctoral dissertation, Institute of economics – Skopje, 2014

THE RELATIONSHIP BETWEEN TQM AND ORGANIC PRODUCTION: OPPORTUNITY FOR ASSOCIATIONS OF PRODUCERS OF ORGANIC PRODUCTS IN REPUBLIC OF MACEDONIA

poor quality. So, they are divided into two schools of quality approaches:⁵ those who focus on technical processes and tools and those who focus on management dimensions. TQM understood integrations on both approaches, that is:⁶

- Systems approach – covers all business methods, practices and procedures that should conform to a specific set of documented standards or specifications. The focus is on products and services and it's internal within the company or extending to suppliers of goods and services. Typical of this approach is ISO 900 (International Organization for Standardization).
- Humanistic approach – complements standards and specification with additional focus on the role of management, planning, people contributions, customer focus, team work and business process. This approach is less audit and inspection oriented and more prevention based.

The aim of the TQM is achieving competitiveness by changing the way of work at a faster pace than the changes that occur in the environment. The basic principles of TQM are:⁷

- Leadership oriented towards creative thinking, innovation, change, development and renewal. It is required by managers to conduct an inspiring vision and strategic direction for the employees that will be clear and understandable to all, and it will set values which will all respect and improve the efficiency of operations, and thus the quality of work.
- Satisfying customers and employees (members), a principle which is based on the view that the focus of attention should be customers, meeting their requirements and needs while meeting the needs and demands of the members to be able to accomplish the customers.

⁵Melsa J. L., "Principles and tools of Total Quality Management", <http://www.eolss.net/Sample-Chapters/C15/E1-28-04-09.pdf>, 16.04.2013

⁶Final Report Foe RMC Short Term Research Grant VOT 71663, "Total Quality Management (TQM) and Critical Success Factors For Implementation in Manufacturing Small and Medium Sized Enterprise (SMEs), 2003, p.23

⁷Dahlgaard J., Kristensen K., Kanji G., "Fundamentals of Total Quality Management", Taylor & Francis, London, 2002, p. 17

- Continuous improvement in all aspects of operations, as well as the external aspect, in terms of better quality, better product quality and better service, and as a result of satisfied customers, better market position leading to a higher income and inner aspects regarding better use of resources, effective the creating process, smaller errors and defects, and as a result, lower costs and higher revenue.
- Focus on facts means bigger, better and proper utilization of the available resources, data and information in order to satisfy customer requirements and achieve the goals.
- Participation of all, a principle which implies a unique commitment of the stakeholders in achieving the goals.

TQM means excellent quality of products and services and its goal is to carry out the things well at first, and to work on continuous improvement. It emphasizes the need for production functions in the enterprise to be continually improved.

1.1. Dimension and principles of TQM in agriculture

TQM as complex and multidimensional management system aimed at agribusiness is to be considered as mass, proportion and continuous quality improvement in all areas of production and economic (business) and social activity. In this sense, considering its unique foundations sets, TQM is regarded as a new and modern management system designed to solve all problems in a company or organization. Due to the complex and multidimensional structure, TQM in agriculture is characterized by the following dimensions:⁸

- Management on basic levels (strategic, tactical, operational and executive-routine).
- Management by activities (planning, operationalization, analysis and action for quality performance through all necessary corrective, service and other activities to fully satisfy the customers with the product).

⁸ Mitreva E., Chepjunoska V., Prodanovska V., "TQM strategy in the design of an quality system in the agribusiness", Nauchno-prakticheska konferencija s mezhdunarodno uchestie, Sviщov, 2009

THE RELATIONSHIP BETWEEN TQM AND ORGANIC PRODUCTION: OPPORTUNITY FOR ASSOCIATIONS OF PRODUCERS OF ORGANIC PRODUCTS IN REPUBLIC OF MACEDONIA

- Management by objectives and tasks (through faultless production system of Just In Time (JIT), which in the context of production means "early production").
- Management of the sectors and activities (marketing, finance, production services, staffing, research, development, etc.).
- Management factors for development (science, technology, natural resources, investments etc.).

In agribusiness, with numerous business activities related to food production, quality is particularly important. Besides producing quality food, agribusiness constantly need to follow the requirements of customers or clients who are constantly increasing in quality. These requirements restructure agribusiness so it increasingly becomes focused on continuous improvement of quality in the production process. It will entail greater cooperation of employees and creating teamwork, and thus satisfied employees. This shows that the TQM system should be present in agribusiness from several aspects:

- Continuous improvement of the quality of products.
- Continuous improvement of the quality of work.
- Increased knowledge of the requirements of customers / consumers.
- Creation of teamwork.
- Highlight certain employees with their ideas and suggestions and thus creating leadership thinking.
- Creation of satisfaction among employees.

According to Krieger and Schiffer, good agricultural practice (GAP), good hygienic practices (GHP), GMP (GMP) and good trade practices (GTP) are basic for a complete quality management in agribusiness. Together with Hazard Analysis Critical Control Point Systems (HACCAP) they enable continuous improvement of product quality and performance.⁹

⁹ Krieger S., Schiefer G., "Quality Management Schiemes in Europe and Beyond", AFITA/WCCA JOINTCONGRESS ON IT IN AGRICULTURE, 2004, <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.200.1930&rep=rep1&type=pdf>, 2.10.2013

Hence, the implementation of TQM in agriculture is a particularly systematic and complex process and requires the application of the above mentioned practices and use of standardized procedures in all processes, implementation of methods and techniques for better performance, optimizing the process and setting good planning information system. Additionally, it requires joint activities like creating business policy and culture, creating a dynamic structure in the company or organization, establishing a system for education and motivation of employees, optimizing the cost of quality, establishing logistical support system and production of programs and projects for quality. TQM in agriculture should be understood as a system of quality improvement in all areas of operation, starting from the idea or vision to produce high quality product which is spread in all areas of work and action.

2. THE CONCEPT OF ORGANIC PRODUCTION

Organic agricultural production is based on a closed cycle of movement of nutrients within the system: soil - plants - animals - man. It aims to produce healthy and quality food products to the population without adverse effects in the environment that may jeopardize the balance in nature. It relies on the ethical principles of protection and improvement of the environment and a cost-effective production with distinctive organoleptic quality. Organic agricultural production is based on four principles:¹⁰

- Health: organic farming should encourage and increase health, i.e. welfare of the soil, plant, animal, human and planet as one indivisible entity.
- Ecology: organic production is based on the life cycle of nature and eco – system, i.e. it determines operation mode in order to encourage and maintain nature.
- Accuracy: organic production should build relationship that will ensure care for the environment and life communities.

¹⁰ Juma M. "IFOAM's perspectives on organic agriculture, Food Security and Sovereignty", Internacional conference on Organic Agriculture and Food Security, FAO, Italy, 2007

THE RELATIONSHIP BETWEEN TQM AND ORGANIC PRODUCTION: OPPORTUNITY FOR ASSOCIATIONS OF PRODUCERS OF ORGANIC PRODUCTS IN REPUBLIC OF MACEDONIA

- Care: organic production should be organized with care and responsibility to protect the health and welfare of current and future generations.

Organic agricultural production is based on traditional, indigenous knowledge and modern agro – ecological research. The principles of organic production include utilizing local resources (seeds, seedlings, fertilizers etc.) which allows greater cost efficiency on one hand, and contribute to a more rational use of the existing resources on the other. In developing countries where organic agriculture is not subsidized, synthetic inputs are expensive and labor is relatively cheap, market-oriented organic farmers can achieve higher returns thanks to reduced production costs and diversified production. Therefore we can say that organic farming is characterized by low costs of investment and high efficiency in improving competitiveness.

In early stages of the development of organic production there existed very few manufacturers who themselves sell their products directly to local markets and there was no need for certification of production. But with the growing demand for organic products and their distribution it emerged the need to introduce standards and certification in order to ensure quality, prevent fraud and to facilitate trade with them. Certification of organic products is based on modern principles of quality assurance control over the production (not the end of the process), thus helping the manufacturers to produce high quality and reliable product. Certification of organic products is a formal and documented procedure by which a third party (certification body) assures that organic standards are respected. The process involves hiring a certification body that will make the inspection and issue a certificate, which is a cost for the manufacturer, but on the other hand leads to consumer confidence in organic production systems and products.¹¹ For that purpose, much of the national economies that endeavor to stimulate organic production, given special assistance to producers i.e. subsidy for certification of organic products. Certification of organic production gives a distinct identity and credibility and makes an easier market access.

¹¹ Standardizacija i certifikacija organske poljoprivredne proizvodnje, project-Razvoj klastera organske poljoprivredne proizvodnje, 16.03.2009

THE RELATIONSHIP BETWEEN TQM AND ORGANIC PRODUCTION: OPPORTUNITY FOR ASSOCIATIONS OF PRODUCERS OF ORGANIC PRODUCTS IN REPUBLIC OF MACEDONIA

Organic agricultural production offers safe, healthy and high quality food for all, especially for those dealing with the production of this food and have arisen as result of several driving forces:

- Farmers, whose conventional production has been perceived as unsustainable and began to develop new alternative methods of production to care for their own and their family's health and enhance the economy of the farm;
- Consumers' demand for healthy and safe products produced in an environmentally friendly way;
- The state and its organs through EU subsidies intended to generate benefits in addition to the environment such as reducing water pollution or creating landscapes with exceptional biological diversity.

Organic agricultural production is a way of life that some people practice their enduring quality of life and the continuation of the existence of nature and hence can be said that organic production and consumption of organic food is a choice. Among them, awareness and knowledge about organic production is very high and they produce an organic life philosophy - quality in all aspects of life.

3. ANALYZES AND RESEARCH FINDINGS IN CURRENT SITUATIONS WITH ASSOCIATIONS OF ORGANIC FARMERS IN THE REPUBLIC OF MACEDONIA

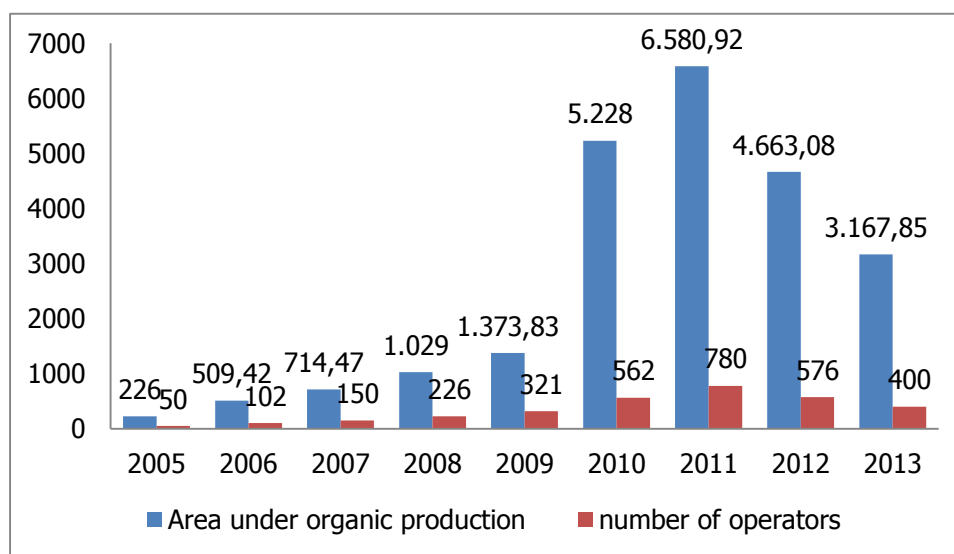
Organic production is recognized as one of the ways that lead to sustainable development, meet social expectations when it comes to environmental and sustainable management of natural conditions and development of rural areas. Republic of Macedonia has excellent conditions for the development of organic agriculture because agricultural production in the country is traditionally a family business which meets local knowledge and traditions. Macedonian agriculture has undergone diverse methods and ways of functioning in social and economic development, but always remained an activity that takes place within the family. Also, taking into account the 2002 Census, according to which 43% of the population, 36%

THE RELATIONSHIP BETWEEN TQM AND ORGANIC PRODUCTION: OPPORTUNITY FOR ASSOCIATIONS OF PRODUCERS OF ORGANIC PRODUCTS IN REPUBLIC OF MACEDONIA

of the workforce and 44% of the poor live in rural areas, the adoption of the concept of organic farming by appropriate agriculture policy can contribute to increase employment and improve the living standards of the population.

In total cultivated land, organic production is 2,74%.¹² Graph 1 below clearly indicates that the interest for the conversion of this production shows intensive growth especially in the period 2005-2011, and in the last two years the interest decreases. Research shows that producers of organic products consistently comply with the rules and procedures or standards for organic production, but it also shows that they face serious problems in performance and continuous market presence and fragmentation i.e. in one region there are several association for the same product. The inadequate internal organization of associations of organic farmers and insufficient quantity ranking is forcing manufacturers to sell their products as conventional and at lower price unlike when sold as organic products, which leads to reduced interest in this way of production.

Graph 1. Area under organic production and the number of operators during the period 2005-2013



Source: Ministry of Agriculture, Forestry and Water Management of Republic of Macedonia, http://www.mzsv.gov.mk/organsko_zemjodelsko_proizvodstvo2013.pdf, 22.09.2014

¹² Annual report for agriculture and rural development 2012, MZSV, http://www.mzsv.gov.mk/files/GIZRR_2012.pdf, 30.12.2013

THE RELATIONSHIP BETWEEN TQM AND ORGANIC PRODUCTION: OPPORTUNITY FOR ASSOCIATIONS OF PRODUCERS OF ORGANIC PRODUCTS IN REPUBLIC OF MACEDONIA

Given that organic farming is a way of growing plants and livestock products where their processing principle creates quality in all aspects, there was a logical exploration of the possibility of application of TQM as a way of organization and operation of associations of organic farmers. In order to research the relationship between TQM and organic production, a survey was conducted to the members of associations of organic farmers in Republic of Macedonia. According to the Central Registry of the Republic of Macedonia as the only institution that maintains records of producers' associations of organic food, there is no exact number of registered associations of producers of organic food because they are registered with the Law on Associations and Foundations¹³, based on Articles 5, 18 and 20 and belong to organizations and non-profit sector in which personal data are confidential in accordance with Personal Data Protection regulations and classified information.¹⁴ The questionnaire was sent to the highest form of organized associations in the country - Federation of Producers of organic products which includes nine regional associations, of which four (4) Associations ("Organik kaki" – Valandovo, "Aronia" - Gevgelija, "Ovcepolski eko-proizvodi "- Sveti Nikole and "Eko-Sar "- Gostivar) and sixty-five (65) members - manufacturers responded to the questions.

The outcome of the research shows that the associations of producers of organic farmers have set grounds for the implementation of TQM in operation primarily due to recognition of organic products under the concept of TQM - total quality in production and operation, cost reduction and customer satisfaction. Namely, on the question, "How do you see the benefits of organic production?" All sixty-five (65) respondents said "total quality in production and operation, reducing total cost and customer satisfaction". This shows that manufacturers know organic production as production for its high quality products with lower costs in order to meet the needs and demands of consumers. The same applies to the principles of TQM, namely TQM is a way of working and organizing the work with full dedication to quality, reduce costs and meet

¹³ Official Gazette No. 52, 16.4.2010

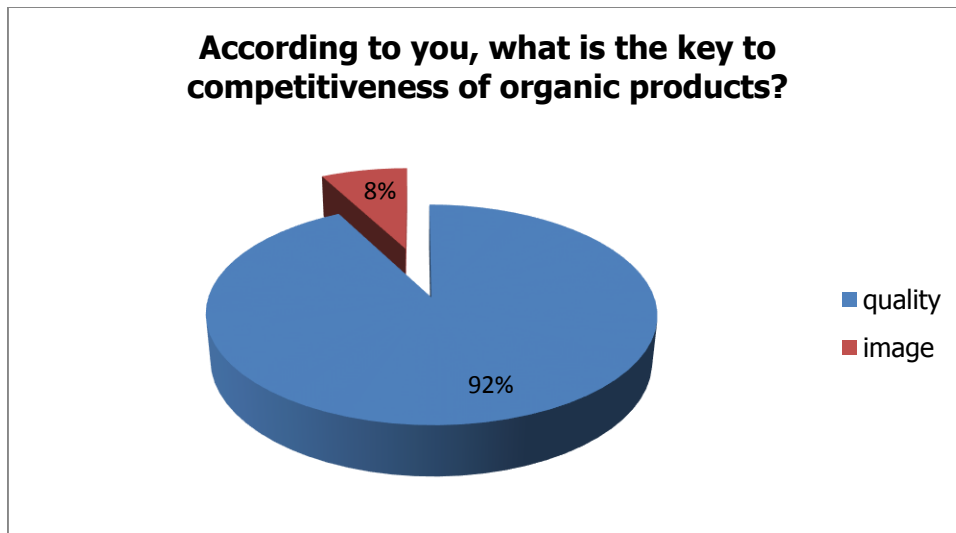
¹⁴ Official Gazette No. 52, 16.4.2010

THE RELATIONSHIP BETWEEN TQM AND ORGANIC PRODUCTION: OPPORTUNITY FOR ASSOCIATIONS OF PRODUCERS OF ORGANIC PRODUCTS IN REPUBLIC OF MACEDONIA

the needs and requirements of customers. Hence, we can say that there is a possibility of applying the principles of TQM in the organization and operation of associations because manufacturers create quality during the production of organic products, but the same principles need to be transferred in the way of organization and operation of associations to reorganize and improve operational and organizational capabilities, knowledge and skills of the producer associations of producers of organic products.

Also, when the respondents asked, "According to you, what is the key to competitiveness of organic products?" sixty (60) manufacturers responded that the quality and five (5) that is the image (Graph 2.).

Graph 2. Opinion of the farmers about advantage of organic production



Source: Own research

The most important feature of organic products is quality, hence, to compete in the market with organic products, manufacturers' leading idea should be that it is a product of exceptional quality. The results of this question confirmed it. Also, the research shows that the association has goals and strategy for increasing quality of work.

4. TQM AS POSSIBILITY TO IMPROVE WORK AND ORGANIZATION IN PRODUCERS' ASSOCIATION OF ORGANIC PRODUCTS IN THE REPUBLIC OF MACEDONIA

Common ground for the concepts of organic agricultural production and TQM is multidimensionality of the quality. Namely, in agriculture as a core business for the production of food products, quality has a special meaning. In agriculture - food quality is evaluated from three aspects:¹⁵

- Organoleptic properties - characteristics that determine exact appearance, color, taste and smell of the product. They are supported by laboratory - chemical methods where physical - chemical time examination determines properties of the product.
- Commercial quality - a degree of readiness and equipment of each product for market consumption in terms of packaging, marking and scoring.
- Technological quality - is determined for agricultural products which are prepared as raw materials for industrial processing.

Hence, the study of quality in agribusiness is made mainly from three aspects:

- production - quality is considered as a totality of features which match the standards and other technical documentation,
- consumer - quality review of the country of the consumer and
- economic-quality simultaneous review of production and consumer perspective.

Economic characteristic of quality is associated with the consumption value of the product by meeting social need, meeting the needs of the consumer and is also associated with certain social relations. Consumption value as a category shows that in general, a product is useful, but does not determine the exact amount of usefulness. Actually, in economic terms, quality of the product represents certain consumption value in practice. When a product is bought, its consumption value is evaluated and for

¹⁵ Sekovska B., Anakiev B., „Zgolemuvanje na konkurentnosta na zemjodelskite proizvodi preku zaednichki nastap na zemjodelski zdruzhenija“, Zdruzhenie na agroekonomistite na Republika Makedonija, Skopje, 2004, str.12

the customer it expresses quality. Quality does not stand on its own, there is a quality product. Therefore, the quality should be studied as a concept derived directly from consumption value and is integral in connection with it.

In order to integrate the quality with all its aspects within the operation of the associations of organic producers, it is necessary that the new way of thinking about quality and the commitment to it, becomes integral part of all activities. The aim of the total quality management is achieving competitiveness by changing the way of work at a faster pace than the changes that occur in the environment. The biggest step that needs to be done is to direct the attention not just on the product quality (such as organic products), but also to the quality of the management and in that manner to fully enhance the performance of the product and all the features and capabilities of the associations.

Research has shown that TQM is a great way to achieve the following goals of the associations of producers of organic products:

- Anticipation and creation of association's future,
- Improve loyalty and admiration of the client,
- Induce organizational and technological restructuring of the association,
- Reduce costs, increase productivity and profit,
- Encourage socially responsible behavior and
- Provide long-term growth and development of the association suitable environment.

The benefits from the implementation of TQM in the associations of producers of organic products can be seen from two aspects:

- Internal links are visible in the clear purpose of the association, clear, unambiguous communication between members, good cooperation, joint decision making and joint bargaining activities, members' satisfaction, continuous improvement and promotion of business communication, continuous improvement and advancement of knowledge, trust and mutual respect between members.

THE RELATIONSHIP BETWEEN TQM AND ORGANIC PRODUCTION: OPPORTUNITY FOR ASSOCIATIONS OF PRODUCERS OF ORGANIC PRODUCTS IN REPUBLIC OF MACEDONIA

- External links are seen in developing cooperation with consulting firms and universities, advancing knowledge and education, consumer satisfaction and subsequently, satisfaction of the entire community.

The implementation of TQM as a way of organizing and improving the work of associations of producers of organic products should be directed to:

- Improving education and training of members of the associations of producers of organic products
- Defining the quality policy
- Integration of quality into organizing associations of producers of organic products, through continuous improvement in the way of cooperation and communication among members of the association.

In the process of applying the full management of quality of work and organization of associations of producers of organic products, the concept of quality, with all its aspects should be clearly understood. Consequently, the process must result in creation of a strategic framework that will connect organic production and operation mode of producers of organic products and their associations.

CONCLUSION

The organic products are result of the way of thinking and growing high quality crops, targeted to achieve customer satisfaction, better market position and successful business. Quality in organic products does not imply only to the organoleptic characteristics of the product, but also to implementation of the sustainable development concept and balance between technological development (which is necessary for economic prosperity) and protection of the environment and society as a whole.

TQM is management philosophy that relies on strong commitment for continuous improvement in all aspects of operations in order to achieve superior quality, care and responsibility towards all possible products and relations within the organization.

The research showed that TQM and organic production are linked by very important factor – quality in all spheres of life and work. Thus, application of TQM as a way of organization and operation will significantly improve all business aspects of the association of producers of organic products and each of its members. Additionally, this synergy will increase their social responsibility and will improve the environmental and social sustainability.

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LEADERSHIP STYLES AND ORGANIZATIONAL CULTURE IN MACEDONIAN COMPANIES

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ABSTRACT

Although in a position to shape the organization in terms of the architecture or the team construction, the leadership is bound with the prevailing corporate culture that cannot be changed easily. Moreover, these two concepts seem inherently interdependent: to change the culture we need visionary, capable leadership that can only be created in a culture that values these traits.

Our paper presents the results of the survey of selected managers of business organizations in Republic of Macedonia in terms of the organizational culture they praise and nurture. The conservative organizational culture, based on rigid authoritarian management, prevails with some exceptions in the case of female entrepreneurs, leaders with higher education degrees and those with management training and work experience in established foreign companies. Promotion of various on the job training programs, drafting younger and educated managers, gender balanced boards and strategic drafting of foreigners in them, will positively influence the desired change of the organizational culture. However, perhaps the greatest contribution of such change will be growth of the innovativeness that will increase currently low competitiveness index of our economy.

KEYWORDS: organizational culture, management, leadership, change management, strategy,

JEL CLASSIFICATION: M10, M12

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LEADERSHIP AND THE ORGANIZATIONAL CULTURE

The topics of leadership and organizational culture continue to attract considerable interest from academics and practitioners all over the world. This mainly because the widely accepted premise that these two concepts are linked to the organizational performance. However, little research is dedicated to the relationship between the leadership and the organizational culture.⁴ Today, organizations depend upon capable leadership to guide them through unprecedented changes. Numerous surveys of the CEOs show that they believe that the key factor that will determine the future of their organizations is the quality of their leadership talent they will manage to grow or acquire. However, it is not simply the number or the quality of individual leaders that determine the organizational success, but their ability to understand the collective values, actions and endeavors communicated by the formal and informal artifacts and relationships in the organization. Thus, leadership and the corporate culture seem inherently interdependent: to change the culture we need a visionary, capable leadership that can only be created in a culture that values and fosters precisely those traits.

Leadership

Leadership means communication, motivation, encouragement and involvement of the people.⁵ Leadership is a vision, idea and direction and requires ability to motivate people to complete their tasks without being closely supervised.⁶ The effective leadership, while emphasizing the importance of the work the employees perform, positively affects the motivation and drives people to carry out the tasks as leader expects.⁷ Leadership is about the ability to influence, to motivate and to allow others

⁴ Ogbonna, E., Harris, L. (2000) *A Conceptual Model for Organizational Citizenship Behavior towards Sustainability pages*, The International Journal of Human Resource Management, 11 (4). pp. 766-788.

⁵ Levine, S., Crom, M. (1994) "The Leader in You", Simon and Schuster

⁶ Bennis, W. (2001) *The New Leadership in Crainer, S. and Dearlove, D. Financial Times Handbook of Management*, Pearson.

⁷ Mullins, J. (2005) *Management and Organizational Behavior*, Prentice Hall.

to contribute to the effectiveness and success of the organization.⁸ Good leaders inspire others.⁹ They are comfortable to function in complex and uncertain circumstances.¹⁰ They help their followers to accept the change and to understand it as a challenge.¹¹ They are in the best position to implement the change in the organization that run.¹² Consequently, good leaders are those who can transform their organizations.¹³ For Blake, Mouton and McCauley a good leadership is balanced combination of task and people concern and orientation.¹⁴ Others claim that there is no one fits all set of leadership traits suitable to all possible situations. Therefore, the ability of a leader to choose the style that best fits the situation is the most desired trait.¹⁵ Many researchers believe that good leader cannot be created or educated and that they are all natural born.¹⁶

Organizational Culture

Culture includes the organization's vision, values, norms, systems, symbols, language, assumptions, beliefs and habits. It is a product of such factors as product, market, technology, and strategy, type of employees, management style, history, national culture.¹⁷ A strong organizational culture may affect how much employees identify with an organization.¹⁸ For Schein, the culture is composed of three levels

⁸ House, J. (1971) 'A Path-Goal Theory of Leadership Effectiveness', Administrative Science Quarterly, 16.

⁹ Hollingsworth, J. (1999) 'Squadron Leader, Purpose and values', The British Journal of Administrative Management

¹⁰ Fullan, M. (2001) *Leading in a Culture of Change*, Jossey-Bass.

¹¹ Hooper, A., Potter, J. (1999) 'Take it from the TOP', People Management.

¹² Bass, M. and Riggio, E. (2005) *Transformational leadership*, Psychology Press, Boston. and Jex, M., Britt, C. and Thomas, W. (2008) *Organizational Psychology – A Scientist – Practitioner Approach*, John Wiley and Sons, Inc.

¹³ Taffinder, P. (1995) *The New Leaders: Achieving Corporate Transformation through Dynamic Leadership*, KoganPage

¹⁴ Blake, R., Mouton, J., Barnes, L. and Greiner, L. (1964) Breakthrough in Organization Development. HBR 42(6), 133-155.

¹⁵ Harris, J., Hartman, J. (2002) *Organizational Behavior*, Best Business Books.

¹⁶ Drucker, P. (1989) 'The Practice of Management', Heinemann Professional.

¹⁷ Needle, D. (2004) 'Business in Context: An Introduction to Business and Its Environment', Thomson.

¹⁸ Schrod, P. (2002) *The relationship between organizational identification and organizational culture: Employee perceptions of culture and identification in a retail sales organization*, Communication Studies 53, pp. 189–202.

(visible artifacts, values and underlying assumptions) and it is the most difficult organizational attribute to change, including the leadership and the artifacts (the physical attributes of an organization). There are three stages in the corporate culture development:

- Birth and early growth — the culture is dominated by the founder. He is regarded as a primary source of the company identity, a bonding agent and a protector against the outside forces;
- Mid-life — the original founder's culture starts to be gradually diluted and new cultures emerge. The organization is much more formal and much more market oriented;
- Maturity — People are addicted to the usual way of how the things are done and are unwilling even to contemplate change. The culture is strong but it is transformed from a source of competitive advantage and distinctiveness to a obstruction.¹⁹

Culture as Strategy

For Edgar Schein, the creator of the concept, organizational culture is the pattern of basic assumptions that a given group has invented, discovered or developed in learning to cope with problems of external adaptation and internal integration. This pattern is also culture since it has worked well enough to be considered valid and therefore to be taught to new members as the correct way to perceive, think, and feel in relation to those problems. Schein highlights that espoused values (strategy) have an impact on underlying assumptions (culture) in a process of double-loop learning. Considering that organizations might need to change over time, it may become necessary to restructure certain parts of the structure to align with a pre-defined

¹⁹ Schein, E. (2007) Organizational Culture and Leadership. Bloomsbury Business Library - Management Library.

strategy and missing to change the structures or operations would threaten the economic survivability of an organization, concluded.²⁰

Also for Mintzberg, the strategy considered as “character” of an organization is another word for its culture. The development of an organizational culture sets a framework for the desired intentions (or strategy) to be achieved. In addition, the culture serves as a strategy because a better outcome is produced when individuals in the firm share common motivations, intentions and behavior, he stressed.²¹

For Ravasi and Schultz, the organizational culture defines the appropriate behavior for various situations.²² Thus, organizational culture affects the way people and groups interact with each other, with clients and with the stakeholders.

Types of organizational culture

Cameron and Quinn distinguish four culture types, based on the attitude towards the flexibility versus stability and internal versus external focus. (1) The clan culture (internal focus and flexible) results in a friendly workplace where leaders act like father figures. (2) The adhocracy culture (external focus and flexible) creates a dynamic workplace with leaders that stimulate innovation. (3) The market culture (external focus and stabile) leads to very competitive workplace with leaders like hard drivers. (4) The hierarchy culture (internal focus and stabile) resulting in structured and formalized workplace where leaders act like coordinators and controllers.²³

While analyzing the Macedonian companies, Popovski finds three distinct types of organizational culture labeling them as conservative, entrepreneurial and flexible. According to him, the businesses characterized by their conservative organizational

²⁰ Schein, E. (1992) *Organizational Culture and Leadership: A Dynamic View*. San Francisco, Jossey-Bass.

²¹ Mintzberg, H. (2001) *The Strategy Concept*, California Management Review, p.16.

²² Ravasi, D., Schultz, M. (2006) *Responding to organizational identity threats: Exploring the role of organizational culture*, Academy of Management Journal 49 (3), pp. 433–458.

²³ Cameron, K, Quinn, R. (2011) “Diagnosing and Changing Organizational Culture: Based on the Competing Values Framework”, Jossey – Bass

culture have vertical hierarchy and strict division of labor. Decisions in these companies are centralized; the communication is top-down using orders and directives. A mentality of subordination prevails and the applied leadership style is autocratic. Popovski's definition of this culture is close to the Cameron and Quinn's hierarchical culture.²⁴

The entrepreneurial organizations of Popovski are better adapted to the changes in the environment, but in terms of the leadership, they are also prone to some sort of an authoritarian leader. A characteristic of the organizational culture of an entrepreneurial organization is the strong influence of the founder. The owner nurtures a culture of informal roles and relationships. Formal rules and procedures do not exist, but the control is at the discretion of the owner.²⁵ These organizations are much more market oriented and are able to adjust to the changed market situation faster. In terms of the Cameron and Quinn's taxonomy, this entrepreneurial culture could either match the clan culture with a friendly workplace or the market culture with dynamic, yet very competitive workplace and leaders who almost exploit the team members.

In the organizations that nurture the flexible model of culture, people are valued based on their expertise and competence. The leadership is participatory. The flexible model of organizational culture encourages the employees to adjust their behavior to the requirements for the implementation of development goals, new production methods, technology and/or the changes in the external environment, but the relations between the members of the organization are cooperative and there is a high cohesion in the groups. This culture is the key to success and continuous growth of the company in the new knowledge based economies. Hierarchy is of little meaning and people are respected for their technical ability and competence.²⁶ With its external focus and flexible structures, the dynamic workplace with leaders that stimulate innovation, the flexible culture is closest to the adhocracy culture of Cameron and Quinn.

²⁴ Поповски, В. (2001) "Влијанието на организациската култура врз деловноста на претпријатијата", Економски институт Скопје.

²⁵ Поповски, В., Ibid

²⁶ Поповски, В., Ibid

FINDINGS OF THE STUDY

In order to explore the situation with the leadership styles and the organizational culture in Macedonian companies we developed and administered a survey that followed the classification of Popovski. The survey questionnaire included demographic questions related to data about the participants: age, gender, work experience, education and questions intended to explore the preferred organizational culture that they, as owners or managers, nurture. The later part of the questionnaire consisted statements to which respondents were choosing between "almost never" and "almost always" depending on the extent to which the particular statement corresponds to their comprehension of the most appropriate leadership and the architecture, values, believes, artifacts and the overall climate that they want to build and actively nurture in their organizations. The structure of the respondents in terms of the management level to which they belong is 24% top level, 34% middle level and 42% line mangers. In terms of the gender structure, men are 56%, women 44%.

The results show that the majority of respondents (39%) incline towards or prefer and practice the conservative (traditional) organizational culture, 33% to the entrepreneurial and 28% to the flexible culture. Indicative is the difference between the preferred (practiced) cultures in the case of the male vis-à-vis the female respondents. While among the former, the dominant and most preferred is the conservative culture (39%), the majority of the later (women) prefer the entrepreneurial culture and style (41%).

Table 1. Preferred organizational culture by Macedonian business leaders

Organizational Culture Preferred	Respondents Overall		Male Respondents		Female Respondents	
	Conservative (traditional)	19	39%	11	39%	8
Entrepreneurial	17	33%	8	29%	9	41%
Flexible	14	28%	9	32%	5	23%

LEADERSHIP STYLES AND ORGANIZATIONAL CULTURE IN MACEDONIAN COMPANIES

Total	50	100%	28	100%	22	100%
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Regarding the level of the management, the conservative culture prevails in the cases of the leaders at the lowest and that of the highest level of management, while the more participatory and flexible culture is the most preferred by the middle management.

Table 2. Preferred organizational culture by the level of management

Managerial level	Preferred style					
	Conservative (traditional)		Entrepreneurial		Flexible	
Top level managers	7	58%	3	25%	2	17%
Middle level managers	5	24%	7	33%	9	43%
Line managers	8	47%	6	35%	3	18%

Our results show that the age of the leader influences the preferences, too. In the group of the leaders between 21 and 30 years of age, 55% of the respondents prefer flexible culture, and then comes the entrepreneurial culture with 27%; while the conservative (traditional) culture and autocratic management are preferred by 18% of the respondents. In the group between 41 and 50 years of age, the most frequent is the (traditional) culture (50%), followed by the flexible with 29% and the entrepreneurial culture with 21%. In the group over 50 years of age, the (traditional) culture is dominant with high 63%, followed by the entrepreneurial culture (37%), while the flexible culture is not present at all.

Table 3. Preferred organizational culture and the age of the respondent

Age	Preferred style					
	Conservative (traditional)		Entrepreneurial		Flexible	
21 - 30	2	18%	3	27%	6	55%

LEADERSHIP STYLES AND ORGANIZATIONAL CULTURE IN MACEDONIAN COMPANIES

31 - 40	5	29%	8	47%	4	24%
41 - 50	7	50%	3	21%	4	29%
50 +	5	63%	3	37%	0	0%

With the respondents with higher education prevails the entrepreneurial culture (41%), while with those with a master's degree prevails the flexible culture. This is even more emphasized when it comes to women entrepreneurs. Among them, the entrepreneurial culture is nurtured by 55%, compared to the modest 31% of the men entrepreneurs with higher education. Among the respondents from the lower levels of education, they almost exclusively prefer conservative - traditional organizational culture. Generally, the higher level of education positively affects the acceptance of the entrepreneurial and flexible organizational cultures.

In addition, managers from the local subsidiaries of some FDIs or with some career experience abroad are more inclined towards the entrepreneurial culture (44%). Similar is the situation with the leaders who had a chance to be trained abroad (52%) and with the leaders who are members of some professional business associations. On the other hand, the conservative (traditional) culture is dominant among the leaders who have not attended any management training program (50%).

CONCLUSIONS

Following the survey and the analysis of the results, having in mind all limitations of the survey in terms of the small sample or the actual e-form submission, we can still offer several conclusions regarding the applied organizational culture nurtured by the entrepreneurs in the country:

- Generally, conservative - traditional organizational culture prevails, except in the case of women entrepreneurs who seem value and build entrepreneurial and flexible organizational culture;
- In terms of the age structure, the conservative traditional culture is prevalent in companies led by senior leaders who have over 40 years of age;
- The training of the leaders, especially if it is out of the country, positively influences the choice of the preferred organizational culture;
- In terms of the managerial experience, it can be concluded that the dominance of the conservative and traditional culture decreases with increasing the managerial experience;
- The previous work experience of the leader in some foreign company has positive impact on the selection of organizational culture;
- Education plays positive role in the selection of the organizational culture that will be pursued by the entrepreneur. Leaders who have graduate degrees foster entrepreneurial culture and tend to choose participatory leadership while those with lower education usually apply autocratic leadership and develop traditional organizational culture;
- Macedonian companies with foreign strategic investors and multicultural management teams have more flexible culture and the change of the behavior and way of thinking of the Macedonian managers in these companies is evident.

Having all this in mind, we can only add that the organizational culture nurtured by the majority of the corporate leaders in the country, is not the preferred one. The

conservative - traditional organizational culture and strict entrepreneurial culture dominate, induced by the autocratic or by the market driven, result oriented and dehumanized leadership. While these two cultures and styles of leadership could be beneficial in the early stages of an organization, or in the special market situations, generally both are considered out-dated and not appropriate for knowledge based industries of the new age.

While the organizational culture affects the style of the leadership, the leaders can also greatly affect and shape the creation of desired organizational culture in their companies. Promotion of various on the job training programs, drafting younger and educated managers, gender balanced boards and strategic drafting of foreigners in them, will positively influence the desired change of the organizational culture. However, perhaps the greatest contribution of such change will be growth of the innovativeness and the initiative of the employees, which will speed up the product to market time, streamline the processes and all that will gradually increase, currently low competitiveness index of our businesses of our national economy.

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**LEVEL OF CUSTOMER SATISFACTION FROM ELECTRONIC BANKING
SERVICES IN THE POLOG REGION**

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ABSTRACT

Electronic banking services have occurred relatively in the last decade in the Republic of Macedonia and as a new occurrence, the e-banking success is influenced by the customers' satisfaction and user experience. The purpose of this paper is to explore the satisfaction and the user experience of the customers from the electronic services of banks in the Polog region, where 200 people were surveyed, mostly from the Gostivar and Tetovo region. Demographic factors (sex, type of client, status, age, level of education, level of knowledge and the working experience) are placed in correlation analysis with certain levels of e-banking, such as: trust in e-services, ease of use, the user experience when using technology and the satisfaction from using e-banking services.

The research adds further value opportunities and measures for improving the condition of the customers' satisfaction from the electronic bank services in Polog.

KEYWORDS: e-banking, customer experience, customer satisfaction, comparative analysis, Polog region

JEL CLASSIFICATION: M30, M31

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1. THE PROCESS OF MEASURING CUSTOMER SATISFACTION

Marketing, according to the American marketing association, is defined as the activity, set of institutions, and processes for creating, communicating, transmitting, and exchanging offerings that hold value for customers, clients, partners, and the society at large⁴. Value, as a central marketing concept, is primarily a combination of quality, service, and price (qsp), known as the customer value triangle. Value perceptions increase with quality and service, but decrease with price. Satisfaction, on the other hand, reflects a person's judgment of a product's perceived performance in relationship to expectations. If the performance falls short of expectations, the customer is disappointed. If it matches expectations, the customer is satisfied. If it exceeds them, the customer is delighted (Kotler et al., 2012, p. 10). Perceived value is the customer's overall assessment of the utility of a product based on perceptions of what is received (the benefits) and what is given (the sacrifices) (Zeithaml, 1988). The first part of the perceived value is the received benefits: economic, social and relationship, while what is given, the sacrifices are: price, time, risk and convenience of the customers (Roig et al., 2006, p.266-283).

With the development of information technology and the Internet, customers are becoming more informed and organizations that are focused on marketing are more tailored towards the end-consumer. The banking sector provides tremendous effort to satisfy the expectations of customers by analyzing how they react to their offered services. The satisfaction of the customers has become the leading indicator for developing and improving the successful functioning of banks. Banks can use different methods to measure the level of customer satisfaction by gaining feedback information which they can use to increase the effectiveness of their work through collecting, processing and analyzing the data. Also, banks use a wide variety of forms of communication such as discussions, canvasses, focus groups and questionnaires to

⁴<https://www.ama.org/AboutAMA/Pages/Definition-of-Marketing.aspx>(accessed on 3rd of January, 2015)

improve the specific needs of the customers, which is an important step in the management of services.

2. DEFINING ELECTRONIC SERVICES PROVIDED BY BANKS IN REPUBLIC OF MACEDONIA

According to Laudon (Laudon et al., 2009, p. 13-18) the eight unique features of electronic commerce are: ubiquity, global reach, universal standards, richness, interactivity, information density, personalization/customization and social technology. The electronic services of banks (e-services) are the sum of different technologies, whose development depends on the use and the innovation of information technologies. E-services decrease the personal relationship between banks and customers because every transaction is completed online without personal contact. Banks, through the use of e-services can gain a number of benefits: improved reputation, better communication with the clients, reduction of promotional costs, and cost for launching new services and etc., which can transform banks into competitive, technologically modern and internet-oriented entities. E-services of banks allow customers fast, consistent, and safe access at any given moment, which means they can save time, energy and money.

2.1 Comparative analysis of e-services in Republic of Macedonia and developed countries

Despite the continued growth of online banking in Europe, in some country-members of the European Union, the level of branch visits still remains high. For example, in France and Italy, compared with other countries, there was a significant increase of branch visits (Meyer, 2006). The statistic center of the European Union, called eurostat, in 2012, made a research about the use of information and communication technologies in the households and about the individuals (Seybert, 2012). The research resulted in the following data regarding online users in EU27:

- Around 60% of the young population in EU27 (age of 16-24 years) used Internet in motion;
- The percentage of persons that used Internet in the EU in 2012 was 73%;

LEVEL OF CUSTOMER SATISFACTION FROM ELECTRONIC BANKING SERVICES IN THE POLOG REGION

- In 2012, 54% of the users used Internet for banking operations;
- One out of two internet users aged between 55 and 74 uses online services for banking purposes and travelling.

In the Republic of Macedonia, in 2008 the access to Internet for the entire population was around 26%, 40% in 2009 and 45% in 2010, while details for the following years have not yet been updated by the European statistics center⁵. According to the E-Government survey, carried out by the United Nations, the telecommunications index of infrastructure (TII) is a normalized value by taking certain value in a country, in particular the deduction of the lowest composite values of the poll and dividing it by the series of composite values of all countries.

Table 2.1 „e-Government“ components of Macedonia according to the UN

MK	Telecommunications index of infrastructure	Internet users per 100 people (percentage)	Main telephone lines per 100 people	Mobile lines per 100 people	Fixed (wired) Internet per 100 people	Personal computers per 100 people	Wireless broadband internet per 100 people
2010 ⁶	0,3804	42,90	22,39	122,56	8,77	36,76	
2014 ⁷	0,4521	63,15	19,37	106,17	14,36		22,27

Source: United Nations E-Government Survey 2010&2014

Table 2.1 displays the comparisons of TII and its components in the Republic of Macedonia in 2010 and 2014 respectively. In 2010, the TII was 0,3804, while 2014 represents a growth to 0,4521 index points. The percentage of internet users increased from 42,9% (2010) to 63,15% (2014). There was a decreasing trend in the telephone and mobile lines in comparison to the growing trend of the fixed or wired Internet. In 2010, 36,7% of the respondents used personal computers, while in 2014 the wireless broadband Internet reached 22,27%. According to the State Statistical Office of Macedonia (Information Society-Announcement, No.8.1.11.25 of 21.10.2011) during

⁵http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=isoc_pibi_pai&lang=en (accessed on 5th of April, 2015)

⁶United Nations E-Government Survey 2010, Department of Economic and Social Affairs, Leveraging e-government at a time of financial and economic crisis, United Nations New York, 2010

⁷United Nations E-Government Survey 2014, Department of Economic and Social Affairs, E-Government for the future we want, United Nations New York, 2014

LEVEL OF CUSTOMER SATISFACTION FROM ELECTRONIC BANKING SERVICES IN THE POLOG REGION

the first quarter of 2011, only 4,1% of the Internet users completed Internet orders for purchasing goods or services for personal use and 10,8% of individuals aged between 16 and 74 used internet banking. The research shows that each increase of 10 points of the penetration of broadband Internet increases the economic growth rate in average of 1,38%, in countries with low or average incomes (United Nations E-Government Survey 2014, p. 187).

The significant competitiveness of the banks in the Republic of Macedonia, the increased investments in the information technologies infrastructure in the last several years and the increased number of Internet users in the country facilitated the increase of the collective awareness about reorientation from the traditional services of banks to the offered electronic banking services. The increasing number of ATM machines throughout the country also contributed to this situation, as well as the large number of POS terminals and the introduction of mobile banking and SMS banking. Consequently, the related cost and charges are lower, compared to the offered services by branch banking. This means that demand can be full filled from any place and another important aspect is that the use of e-banking significantly shortens the time needed to carry out activities and processes. Clients have 24 hours' access to e-banking, save time necessary to reach the bank branch, can follow their denar and foreign currency accounts online and can perform financial transactions.

E-services offered by banks in the Republic of Macedonia differ in the type of technology used, meaning banks can offer internet-banking, mobile-banking and SMS-banking. Essentially, banks in Macedonia offer similar electronic banking services:

- Electronic balance checking and statement searching, both for individuals and businesses
- Electronic payment through debit and credit cards
- Electronic payment of liabilities of all kinds of credits and the payment of liabilities
- Transferring money securely from one account to another even if they have accounts at other banks

LEVEL OF CUSTOMER SATISFACTION FROM ELECTRONIC BANKING SERVICES IN THE POLOG REGION

E-services offered by banks can be defined as conducting financial transactions between individuals and businesses through the use of electronic devices and secure communication channels. The safety of the financial transactions is under the supervision of the banks information security systems. Each time a client accesses the electronic services of the bank, the identity of the client is confirmed via a username and a password through the use of a digital certificate. E-services offered by banks in the Republic of Macedonia are mostly similar, with few differences in new inventive models in the electronic banking applications. In the last several years, in the Republic of Macedonia there have been large investments in the information infrastructure of banks and improvements in the electronic banking for legal and physical entities, the ATM and POS network has been expanded in all cities in the country and the electronic exchange and trade is done on a high level of security. Recently, banks in the Republic of Macedonia started to offer the businesses a new possibility and advantage for direct networking of the companies' ERP systems. Meeting the needs and requirements for various services in the Republic of Macedonia through the use of electronic channels for buying or selling and the use of different e-services increases constantly, but yet there is a significant difference in comparison with the use of e-services in other developed countries. A number of factors and parameters determine the low level of use of electronic services, mainly the small population in the country and the low level of penetration of the Internet, the economic parameters, communication and technology factors, legal regulations, etc.

Electronic banking in the Republic of Macedonia, as one of the most important modules in banking, is being offered by the biggest banks in the country. In 2013,

NLB Tutunska bank offered the first mobile banking service NLBmClick. As leaders among the banks who had implemented mobile banking are also Komercijalna and Stopanska bank. At the end of 2013, the rate of Internet penetration in Republic of Macedonia was 65%, while according to HSBC Global Connections only 9,1% of

LEVEL OF CUSTOMER SATISFACTION FROM ELECTRONIC BANKING SERVICES IN THE POLOG REGION

Internet users use the online banking services⁸. According to Global Internet Report 2014, in 2014 the penetration of Internet in Republic of Macedonia was around 61,2%⁹. One outcome is that the percentage of usage of electronic banking services in the last years is gradually increasing, but it poses the question whether the level of customer satisfaction is increasing as well. However, an index of usage of electronic services in the country of Macedonia is still not developed. One of the more difficult questions is whether the population in Republic of Macedonia is prepared for using the offered electronic banking services and what is the level of satisfaction of current users.

One of the main segments of this research paper refers to conducting a practical research of client satisfaction from the electronic banking services in the Polog region and to serve as an indicator for guidelines for improvement. Although banks are mainly centralized in Skopje, the capital of the Republic of Macedonia, the level of satisfaction in the Polog region, as one of the more specific regions in the country, can serve as an indicator for the quality of the electronic services offered. Simultaneously, the research can serve as a motivation for other researches to examine the area of e-banking in the Republic of Macedonia.

3. METHODOLOGY

The research conducted is geared toward the level of customer satisfaction from electronic banking services in the Polog region and aims to confirm the appropriate indicators from the area of electronic services offered from banks in the region, which covers nine communities, including the major municipalities of Tetovo and Gostivar. The appropriate indicators of electronic banking services deriving from the research cover various areas, but the most important, other than demographic data, are: analysis of the importance of various aspects of e-banking, analysis of the user experience, level of satisfaction and various problems related with the usage of electronic banking services. A questionnaire was used to gather the appropriate data,

⁸<https://globalconnections.hsbc.com/global/en/tools-data/treasury-management-profiles/mk/electronic-banking> (accessed on April 11 2015)

⁹<http://www.internetociety.org/map/global-internet-report/> (accessed on April 16 2015)

LEVEL OF CUSTOMER SATISFACTION FROM ELECTRONIC BANKING SERVICES IN THE POLOG REGION

as a tool for immediate communication and surveying of individuals and legal entities (businesses) which use electronic banking services in domestic banks in the Polog region. The survey was conducted on a total of 255 bank clients, of which 55 respondents answered that they don't use electronic banking services and were eliminated in further analysis of the data. The research was conducted between January and March, 2015. The bank clients who answered the questionnaires were mostly students, managers and owners of various companies from the Gostivar and Tetovo region between the ages of 18 to 65. The questionnaire consisted of 13 questions, from which the first six cover demographic parameters, such as: gender, type of client, status (employed or unemployed), age, level of education and work experience. The other seven questions refer specifically to the usage of electronic banking services, utilizing a five-level Likert scale for measuring the level of satisfaction: extremely satisfied, satisfied, neutral, unsatisfied and extremely unsatisfied. The questionnaire and the results can be viewed in detail in the appendix of this research paper.

4. MAIN FINDINGS AND CONCLUSION

During the analysis of the results the focus was on tracking the user experience and the level of satisfaction in using electronic banking services. Further areas of interest were the correlation of trust for e-banking services with IT knowledge, the correlation of level of customer satisfaction and ease of use, as well as the influence on the age and education level.

- Private clients with high level of education have the highest level of conviction for the importance of the ease of use concept regarding e-banking services. The conclusion is that the level of conviction for the importance of ease of use grows in conjunction with the growth of the level of education.
- Private clients more often access the Internet for conducting financial transactions in comparison to legal entities, while there aren't many differences present between the employed and unemployed groups regarding this area.

LEVEL OF CUSTOMER SATISFACTION FROM ELECTRONIC BANKING SERVICES IN THE POLOG REGION

- Legal entities permanently and often use debit cards, with approximately 65%, while credit card usage is around 33%. On the other hand, private clients are using debit cards more extensively than credit cards. Employed respondents are also utilizing cards (credit and debit) in greater percentage than the unemployed group. Card usage grows with age increase – regarding the group around the age of 65, the often use of debit cards increases from 22% to 51%, while the often and permanent usage of credit cards reaches 33%.
- Approximately 50% of private clients are using the bank website to monitor transaction accounts, while the percentage for online monitoring of accounts by legal entities is lower. The use of online banking services is gradually decreasing with the increase of age, while the opposite is true for the level of education. As the level of education increases, there is an incremental improvement in the usage of online banking services.
- With the growth of the level of IT knowledge, there is a trend of gradual improvement in the level of trust. Lack of confidence (trust-insignificant) to e-services is reduced from 20% to 6% of respondents who continuously increase the level of IT knowledge.
- Both private clients and legal entities, with an average of 67.5%, are satisfied with the online monitoring of information and final states on the accounts. There is a similar trend with the level of satisfaction among employed respondents, compared with the unemployed. By the age of 65, approximately 67.4% of the clients are satisfied with the average follow-up of information on the accounts and final states, while regarding the level of education, satisfaction is ranged on average of about 62% to 64% between graduated respondents.
- From the analysis of electronic payment and transfers between accounts, it may be noted that private clients and legal entities are more satisfied with electronic payments, i.e. around 43% of individuals and 51% of legal entities are satisfied. Regarding account transfers, only 19% individuals are satisfied, compared to 54% of legal entities.

LEVEL OF CUSTOMER SATISFACTION FROM ELECTRONIC BANKING SERVICES IN THE POLOG REGION

- Among the unemployed respondents, the neutrality regarding the level of satisfaction of electronic banking services is high, while employed respondents are more satisfied with the appropriate e-services. With age increase, satisfaction regarding electronic payments ranges from 39% to 55% and average neutrality covers more than 1/3, while the satisfaction from account transfers until the 65th year is increasing with slight variations, neutrality averages around 56% and dissatisfaction was more pronounced among the younger generation. Respondents with higher levels of education are more satisfied with the realization of electronic payments compared with account transfers.
- Regarding the issue of diligence of responses to requests or statements of requirements (by e-mail, fax) correlated with demographic factors such as the type of client, status, age and level of education, respondents have chosen the "satisfied" option with approximately 36%, the "neutrality" option with 45.4% and "unsatisfactory" option with 18.3%.
- Correlation between the act of receiving and delivery of payment cards, as a final act and the link between bank employees and end users. This correlation above four demographic factors provide the following average results: for the satisfaction option are determined over 50.4%, as a neutral are declared about 26.3% and for the option dissatisfied determined approximately 22.5%.
- Comparison between the four demographic factors such as the type of client, status, age and level of education on one hand and the following clear instructions on the other hand, provide the following average results: the "satisfactory" option with 32.4%, the "neutrality" option with 40.9% and 26.4% declared for "unsatisfactory" option.
- The area of sending SMS for specific information on banking services in relation to the above four demographic factors, resulted in the following observations: the "satisfactory" option with 28,9% of respondents, the "neutrality" option with 55,2% and 15,7% declared for "unsatisfactory" option.

LEVEL OF CUSTOMER SATISFACTION FROM ELECTRONIC BANKING SERVICES IN THE POLOG REGION

- The cost of using mobile banking in correlation with the three demographic factors provided the following results: the "satisfactory" option with 22,4%, the "neutrality" option with approximately 67,7% and 9,9% declared for "unsatisfactory" option.

From the analysis of private clients and legal entities about how often they access electronic banking services on a monthly basis on the one hand, against the visit of branches of banks on the other hand, we noticed the following data: 44% of individuals visit affiliates 1-5 per month, which is higher than the level of usage of, ATM (36%), mobile banking (29%) and internet banking (24.3%). Regarding legal entities, the level of access and usage is similar between branch banking and Internet banking and moving on average of about 38.5%. Respondents have more access to ATM and perform commercial transactions through POS terminals 6-10 times a month, including 37% of private clients and 39% of legal entities. As the level of access and usage of banking services across channels is increasing, the proportion of access through internet banking is followed by a slight positive trend of increase compared with the physical attendance of the bank, card operations is evening out to physical visits to the bank, while mobile banking is followed by a major downward trend. From the analysis of respondents access to branch banking compared with age and level of education, the most prominent age groups are between 18-25 and 26-35 (42% and 40% respectively), in addition to secondary and higher education levels (43% and 42.8% respectively).

Users of online banking show the following data for the option of connecting to the Internet for realization of bank transactions between 1-5 times per month: 18-25 (29%), 26-35 (23%), primary education (40%). Hence, it can be noted that respondents aged 18-35 years with secondary education level visit branches and sub-branches of banks 1-5 times a month, in comparison with the alternative possibility to access the appropriate banking services from home via Internet. With use of the same demographic criteria to analyze the option "6-10 times", we noticed that customers with higher education (42%) use online banking, while their counterparts who visit

LEVEL OF CUSTOMER SATISFACTION FROM ELECTRONIC BANKING SERVICES IN THE POLOG REGION

banking affiliates are around the same percentage (35.5%). Hence, it can be noted that the level of education influences the increasing access to Internet banking.

The offered electronic banking services in the Polog region are combined with traditional banking services, which makes it difficult to isolate the e-banking services and measure their effect and influence on the level of customer satisfaction. The trend of opening large number of bank branch offices and affiliates (only in Gostivar there are 14 banks and 2 saving banks), and the IT development with the increased internet access in Polog region, contributes to the increasing customer requirements for e-banking services. Above all, the requirements for debit and credit cards are increased; customers are asking if the trade transaction on Internet can be realized with payment cards; the number of requirements for e-banking has also increased; almost every legal entity owns a digital certificate or token for e-banking; customers are asking to receive bank statements via e-mail; notifications for the currency incomes are also received by e-mail; customers are notified via SMS for every transaction through POS terminals, with details for the realized transaction, the final condition and other e-services which banks offer because of the increased customer demand. Lately, banks are offering new opportunities to legal entities for opening e-shops, which is not that attractive for the customers in the Polog region at the moment. The reason is already discussed in the previous section of the paper, where affiliate banking for private clients is on the first place, where around 44% of respondents visit banks 1 to 5 times monthly, in comparison with the e-banking, ATM and mobile banking.

Through our systematic research of the user experience and satisfaction from the electronic banking services in the Polog region, we noticed some opportunities and recommendations for improvement of the level of the customer satisfaction. The first recommendation is to increase the level of customer trust regarding e-services in the group of respondents with low level of IT knowledge, because the analysis shows that with the increased level of information, the level of distrust was reduced. Banks should aim to offer the electronic banking advantages to the group of employed respondents which do not connect to the Internet to perform financial transactions (19,5%). They

LEVEL OF CUSTOMER SATISFACTION FROM ELECTRONIC BANKING SERVICES IN THE POLOG REGION

should target clients in every single group of the demographic factors: type of client, status, age and level of education, and also to consider the customer feedback regarding the user experience. The research shows that, in average, 44% of respondents are sometimes using debit cards, which is a number that causes concern, while on the other side around 37.5% of respondents have never utilized credit cards. Banks should analyze this data in more detail, in order to intervene in the four demographic groups that are mentioned, in regard to improving their user experience in using the electronic banking services. In average, 43% of these four demographic groups are rarely using e-banking, while 27% have never used e-banking. The level of customer satisfaction from the account and final condition information is satisfactory from one side, while on the other side banks should follow the movement of the level of neutrality and unsatisfactory options for electronic payments and account transfers. The average level of neutrality for electronic payments is around 31,2%, the level of neutrality for account transfers is approximately 48.5%, and the "unsatisfactory" option ranges from 8.7% to 13.8%. It is noticeable that private clients mostly visit affiliate banks (1 to 5 times) compared to using electronic banking services, ATM or mobile banking. Private clients with secondary and higher education are visiting the affiliates 1-5 times monthly more in comparison with the other alternatives for electronic access on the banking services. Based on the analysis, a conclusion can be made that the level of education is influencing the reorientation and increases the level of access of electronic banking services versus physical visits to the bank, with clients with higher level of education utilizing e-services more often than the other education groups.

The data in this research can be expanded with analysis of other regions in the Republic of Macedonia, as well as other countries in the Balkan. This research is planned as one platform for a variety of studies in the field of management, marketing, e-business processes, human resources, banking system, sociology and other areas, as well as an initial point for similar studies in the future.

LEVEL OF CUSTOMER SATISFACTION FROM ELECTRONIC BANKING SERVICES IN THE POLOG REGION

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LEVEL OF CUSTOMER SATISFACTION FROM ELECTRONIC BANKING SERVICES IN THE POLOG REGION

ANNEX

QUESTIONNAIRE

QUESTIONNAIRE FOR MEASURING THE CUSTOMER'S SATISFACTION AND EXPERIENCE FROM THE BANK'S ELECTRONIC SERVICES IN THE REGION OF POLOG

The gathered data will be used strictly for the master thesis's necessities and will be presented strictly in sublimated form.

- | | | | |
|---|--|--|---|
| 1. Gender
a). Male
b). Female | 2. Type of client
a). Physical individual
b). Legal entity | 3. Status
a). Employed
b). Unemployed | 4. Do you use electronic banking?
a). Yes
b). No |
| 5. Age
a). 18-25
b). 26-35
c). 36-45
d). 46-65
e). More than 65 | 6. Level of education
a). Primary education
b). Secondary education
c). Upper secondary education
d). High education
e). Master of Science | 7. Work experience
a). Less than a year
b). 1-2 years
c). 2-4 years
d). 4-10 years
e). 10-20 yeras
f). More than 20 years | |

8. Please indicate how would you evaluate the following aspects of the e-banking				
	Very significant	Significant	Partly significant	Insignificant
E-service quality				
Technology that is being used				
Speed of access				
Loyalty in the bank's e-service				
Reduction of transaction time				
Ease of use				
Tech-savvy (knowledge)				

9. How would you evaluate your knowledge in using the electronic services in the banks?

- a) No knowledge at all
- b) Beginner in using information technology
- c) Average knowledge
- d) Advanced computer knowledge

10. Your user experience while using the technology (Tick the ones which are applicative)				
	Never	Sometimes	Often	Permanently
Connecting to the Internet for performing financial transactions				
Debit card services				
Credit card services				
Online banking services (tracking transaction account)				
Other				

11. How often do you use the following e banking services monthly					
	Zero	1-5 times	6-10 times	11-15 times	More than 15 times
Affiliate banking					
Internet banking					
ATM					
Mobile banking					

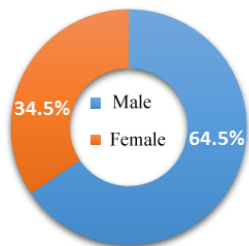
LEVEL OF CUSTOMER SATISFACTION FROM ELECTRONIC BANKING SERVICES IN THE POLOG REGION

12. Satisfaction from using the e-banking services					
Criterion:	Highly satisfactory	Satisfactory	Neutral	Unsatisfactory	Highly unsatisfactory
Information for the account and the final condition					
E-payment					
Transfer from account to account					
Answer to the demand „statement of demand“ (through e-mail or fax)					
Diligence in sending the cards					
Clear instruction and online direction					
SMS for specific information on the banking service					
Cost of using mobile banking					
Other					

13. Please indicate how often you encounter the following problems when using the bank's electronic services				
	Permanently	Very often	Sometimes	Never
Takes too much time				
Inadequate technology				
Lack of fast service				
Lack of clear guidelines				
Other				

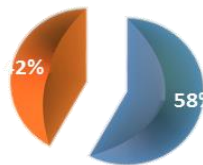
Results

Graph 4.1
Gender structure

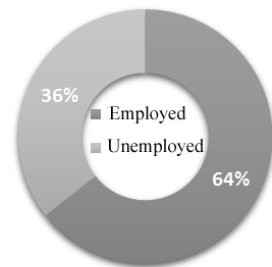


Graph 4.2
Type of client

■ Individual ■ Entity

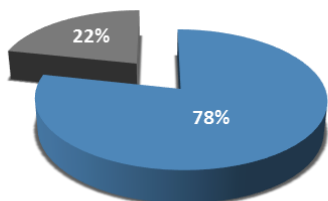


Graph 4.3
Employment status

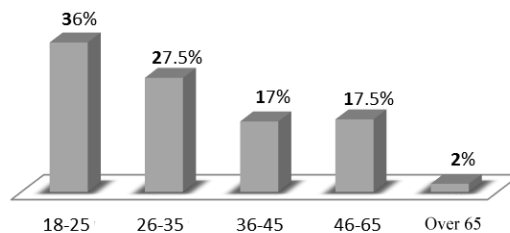


Graph 4.4
Do you use e-banking?

■ Yes ■ No

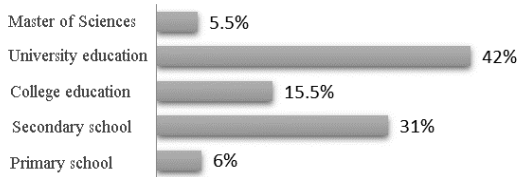


Graph 4.5
Age

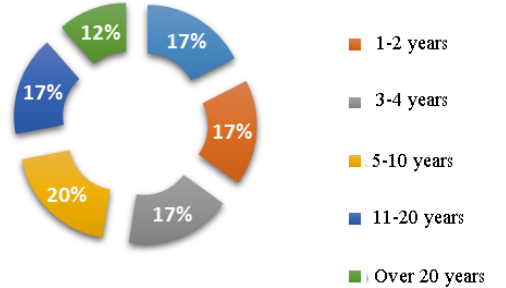


LEVEL OF CUSTOMER SATISFACTION FROM ELECTRONIC BANKING SERVICES IN THE POLOG REGION

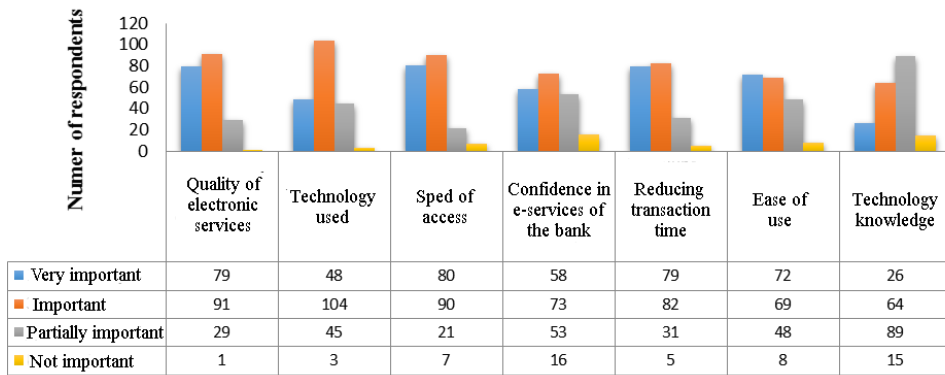
Graph 4.6
Achieved level of education



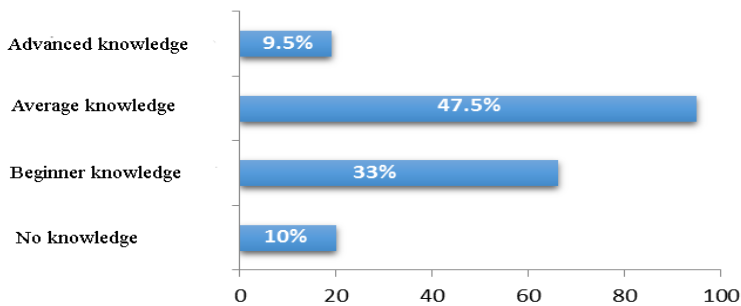
Graph 4.7
Work experience



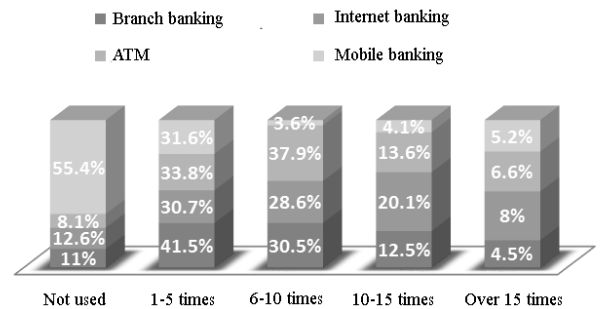
Graph 4.8.
Importance of following aspects of e-banking



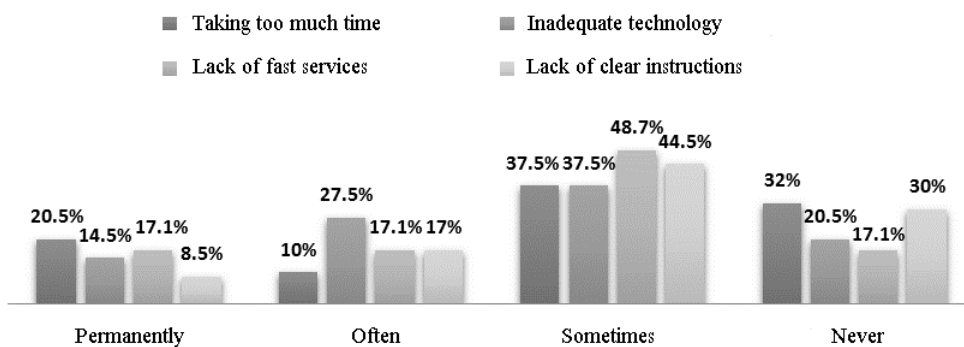
Graph 4.9
Level of knowledge for using the electronic services of banks



Graph 4.10
e-banking rate per month



Graph 4.11
Problems in using the banks e-services



LEVEL OF CUSTOMER SATISFACTION FROM ELECTRONIC BANKING SERVICES IN THE POLOG REGION

Chart 4.1 User experience in using the technology

	Connecting to Internet for accomplishing financial transactions		Debit card services		Credit card services		Online banking services (tracking transaction account)	
	n. of resp.	percentage	n. of resp.	percentage	n. of resp.	percentage	n. of resp.	percentage
Never	28	14%	9	4,5%	77	39%	40	20%
Sometimes	72	36%	90	45%	77	39%	81	41%
Often	52	26%	69	34,5%	28	14%	51	26%
Permanent	48	24%	32	16%	15	8%	27	13%

Chart 4.2. Satisfaction of using the e-banking

Criteria	Extremely satisfied		Satisfied		Neutral		Unsatisfied		Extremely unsatisfied	
Information about the account and the final balance	40	20%	135	67,5%	20	10%	5	2,5%	0	0
E-payment	24	12,1%	91	46%	69	34,8%	14	7,1%	0	0
Account to account transfer	14	7%	58	29,1%	94	47,2%	27	13,6%	6	3%
Answer to the request "statement of request" (via e-mail, fax)	6	3%	67	34%	89	45,2%	31	15,7%	4	2%
Diligence in sending the cards	5	2,5%	93	47%	54	27,2%	36	18,2%	10	5%
Distinct instructions and onlinedirectory	4	2%	60	30,3%	80	40,4%	45	22,7%	9	4,5%
SMS for specific information of banking services	9	4,6%	45	22,8%	108	54,8%	27	13,7%	8	4,1%
Expenses when using mobile banking	5	2,6%	39	20%	135	69,2%	13	6,7%	3	1,5%

Chart 4.3 The relation between the level of knowledge and the confidence towards e-banking services

Confidence towards e-banking	The level of knowledge in using the electronic services				
	No knowledge at all	Beginner at using IT	Average knowledge	Advanced computers knowledge	Total

LEVEL OF CUSTOMER SATISFACTION FROM ELECTRONIC BANKING SERVICES IN THE POLOG REGION

Very significant	5	15	29	9	58
Significant	8	27	33	5	73
Partly significant	3	20	26	4	53
Insignificant	4	4	7	1	16
Total	20	66	95	19	200

Chart 4.4. The relation between the easiness of use and the level of education

Acquired level of education		Ease of use				Total
		Very significant	Significant	Partly significant	Insignificant	
	Primary education	5	2	5	0	12
	Secondary education	15	29	16	1	61
	College education	7	8	11	4	30
	University education	38	27	16	2	83
	Master of sciences	7	3	0	1	11
	Total	72	69	48	8	197

Chart 4.5. The relation between the user experience while connecting to Internet to perform financial transactions and the demographic factors

Demographic factors		Connecting to Internet to perform financial transactions			
		Never	Sometimes	Often	Permanent
Type of client	Individual	13	40	37	26
	Entity	15	32	15	22
Status	Employed	25	40	28	35
	Unemployed	3	32	24	12
Age	18-25	8	27	24	13
	26-35	6	15	15	19
	36-45	6	13	6	9
	46-65	6	16	7	6
	Over 65	2	1	0	1
Acquired level of education	Primary education	1	3	3	5
	Secondary education	9	32	8	13
	College education	5	12	7	7
	University education	12	23	30	19
	Master of sciences	1	2	4	4

LEVEL OF CUSTOMER SATISFACTION FROM ELECTRONIC BANKING SERVICES IN THE POLOG REGION

Chart 4.6 The relation between the user experience while using debit card services and demographic factors

Demographic factors		Debit card services			
		Never	Sometimes	Often	Permanent
Type of client	Individual	6	64	32	14
	Entity	3	26	37	18
Status	Employed	6	47	54	21
	Unemployed	3	43	15	10
Age	18-25	2	42	16	12
	26-35	3	22	20	10
	36-45	2	14	14	4
	46-65	2	9	18	6
	Over 65	0	3	1	0
Acquired level of education	Primary education	0	4	7	1
	Secondary education	5	24	24	9
	College education	2	16	9	4
	University education	2	44	23	15
	Master of sciences	0	2	6	3

Chart 4.7 The relation between the user experience while using credit card services and demographic factors

Demographic factors		Credit card services			
		Never	Sometimes	Often	Permanent
Type of client	Individual	54	44	7	8
	Entity	23	33	21	7
Status	Employed	36	52	25	13
	Unemployed	41	25	3	1
Age	18-25	39	24	5	3
	26-35	14	24	8	7
	36-45	13	13	7	1
	46-65	9	14	8	4
	Over 65	2	2	0	0
Acquired level of education	Primary education	2	6	4	0
	Secondary education	31	16	11	3
	College education	13	10	3	4
	University education	29	41	8	6
	Master of sciences	2	4	2	2

Chart 4.8 The relation between the user experience while using e-banking services and demographic factors

Demographic factors		E-banking services			
		Never	Sometimes	Often	Permanent
Type of client	Individual	23	41	37	15
	Entity	17	40	14	12
Status	Employed	26	57	29	15
	Unemployed	14	24	22	11

LEVEL OF CUSTOMER SATISFACTION FROM ELECTRONIC BANKING SERVICES IN THE POLOG REGION

Age	18-25	13	20	27	12
	26-35	9	24	15	7
	36-45	4	18	6	5
	46-65	12	17	3	3
	Over 65	2	2	0	0
Acquired level of education	Primary education	1	7	2	2
	Secondary education	22	22	8	9
	College education	6	10	9	6
	University education	10	39	27	8
	Master of sciences	1	3	5	2

Chart 4.9. The relation between the demographic factors and satisfaction of the account and final balance information

Demographic factors		Account and final balance information				
		Extremely satisfied	Satisfied	Neutral	Unsatisfied	Extremely unsatisfied
Type of client	Individual	17	78	16	5	0
	Entity	23	57	4	0	0
Status	Employed	37	79	8	4	0
	Unemployed	2	56	12	1	0
Age	18-25	7	55	10	0	0
	26-35	17	30	4	4	0
	36-45	8	23	3	0	0
	46-65	7	25	3	0	0
	Over 65	1	2	0	1	0
Acquired level of education	Primary education	2	9	0	1	0
	Secondary education	11	41	10	0	0
	College education	11	15	4	1	0
	University education	12	64	6	2	0
	Master of sciences	4	6	0	1	0

Chart 4.10 The relation between the demographic factors and satisfaction of e-payments

Demographic factors		E-payment				
		Extremely satisfied	Satisfied	Neutral	Unsatisfied	Extremely unsatisfied
Type of client	Individual	13	49	43	10	0
	Entity	11	42	26	4	0
Status	Employed	18	66	34	8	0
	Unemployed	5	25	35	6	0
Age	18-25	5	28	32	7	0
	26-35	10	29	11	3	0
	36-45	5	15	12	2	0

LEVEL OF CUSTOMER SATISFACTION FROM ELECTRONIC BANKING SERVICES IN THE POLOG REGION

Acquired level of education	46-65	3	18	13	1	0
	Over 65	1	1	1	1	0
	Primary education	1	8	2	1	0
	Secondary education	6	23	29	4	0
	College education	7	15	7	2	0
	University education	9	38	30	5	0
	Master of sciences	1	7	1	2	0

Chart 4.11 The relation between the demographic factors and satisfaction of account to account transfer

Demographic factors		Account to account transfer				
		Extremely satisfied	Satisfied	Neutral	Unsatisfied	Extremely unsatisfied
Type of client	Individual	5	22	64	21	4
	Entity	9	36	30	6	2
Status	Employed	7	48	53	13	6
	Unemployed	6	10	41	14	0
Age	18-25	6	12	36	16	2
	26-35	6	15	25	7	2
	36-45	1	16	12	2	2
	46-65	1	15	17	2	0
Acquired level of education	Over 65	0	0	4	0	0
	Primary education	1	6	5	0	0
	Secondary education	4	15	32	9	2
	College education	3	8	15	4	1
	University education	5	24	39	12	3
	Master of sciences	1	5	3	2	0

Chart 4.12 The relation between the demographic factors and satisfaction from the answer to the request "statement of request" (via e-mail, fax)

Demographic factors		Answer to the request "statement of request" (via e-mail, fax)				
		Extremely satisfied	Satisfied	Neutral	Unsatisfied	Extremely unsatisfied
Type of client	Individual	2	36	51	21	3
	Entity	4	31	38	10	1
Status	Employed	4	46	56	17	3
	Unemployed	2	20	33	14	1
Age	18-25	2	21	31	15	2
	26-35	1	21	23	6	2
	36-45	2	11	15	6	0

LEVEL OF CUSTOMER SATISFACTION FROM ELECTRONIC BANKING SERVICES IN THE POLOG REGION

Acquired level of education	46-65	1	13	18	3	0
	Over 65	0	1	2	1	0
	Primary education	0	5	5	2	0
	Secondary education	2	20	30	8	1
	College education	1	10	13	4	1
	University education	3	29	36	15	1
	Master of sciences	0	3	5	2	1

Chart 4.13. The relation between the demographic factors and the diligence in sending the cards

Demographic factors		Diligence in delivering the cards				
		Extremely satisfied	Satisfied	Neutral	Unsatisfied	Extremely unsatisfied
Type of client	Individual	3	55	31	20	6
	Entity	2	38	23	16	4
Status	Employed	4	57	36	24	6
	Unemployed	1	36	18	12	4
Age	18-25	1	34	18	16	3
	26-35	2	21	21	5	4
	36-45	1	18	5	9	1
	46-65	1	17	10	6	1
Acquired level of education	Over 65	0	3	0	0	1
	Primary education	1	5	4	1	1
	Secondary education	2	32	14	10	4
	College education	1	12	10	5	2
	University education	1	39	22	19	2
	Master of sciences	0	5	4	1	1

Chart 4.14. . The relation between the demographic factors and the satisfaction of distinct instructions and online directory

Demographic factors		Distinct instructions and online directory				
		Extremely satisfied	Satisfied	Neutral	Unsatisfied	Extremely unsatisfied
Type of client	Individual	2	40	46	20	6
	Entity	2	20	34	25	3
Status	Employed	3	31	51	36	6
	Unemployed	1	28	29	9	3
Age	18-25	1	27	29	13	1
	26-35	2	19	17	12	4
	36-45	1	7	14	10	2

LEVEL OF CUSTOMER SATISFACTION FROM ELECTRONIC BANKING SERVICES IN THE POLOG REGION

Acquired level of education	46-65	0	6	18	9	2
	Over 65	0	1	2	1	0
	Primary education	0	1	7	3	1
	Secondary education	1	14	29	13	4
	College education	0	12	11	6	1
	University education	2	26	31	22	3
	Master of sciences	1	7	2	1	0

Chart 4.15. The relation between the demographic factors and the satisfaction of expenses when using mobile banking

Demographic factors		Expenses when using mobile banking				
		Extremely satisfied	Satisfied	Neutral	Unsatisfied	Extremely unsatisfied
Type of client	Individual	4	29	72	4	2
	Entity	1	10	63	9	1
Age	18-25	3	14	46	7	0
	26-35	1	15	31	3	3
	36-45	0	7	25	2	0
	46-65	1	3	30	0	0
	Over 65	0	0	3	1	0
Acquired level of education	Primary education	0	3	8	1	0
	Secondary education	2	10	47	1	1
	College education	1	8	18	2	0
	University education	2	13	58	7	2
	Master of sciences	0	5	4	2	0

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IMPLEMENTATION OF INTERNET TECHNOLOGIES IN THE SUPPLY CHAIN OF SMES IN MACEDONIA

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Saso JOSIMOVSKI, PhD²

Ljupce JONCHESKI, MSc³

ABSTRACT

Small and medium enterprises are considered the pillar of every national economy, driving innovation and economic development. In the Republic of Macedonia, there is an evident decline of SME activity in recent years, which is caused by the unstable business climate. Driving for success, SMEs can utilize the advantages of supply chains to exploit opportunities and persevere on the market. The paper examines the existing models of supply chain management, the newer model of e-supply chain management, as well as additional Internet-based services that are available to SMEs. There are several disadvantages that are characterizing the traditional model and can potentially be solved through the e-supply chain model and additional services, such as cloud computing. Different e-supply chain functions, including e-commerce, e-procurement, e-collaboration, e-design and e-planning are analyzed in detail, focusing from the aspect of Macedonian SMEs.

Macedonian businesses generally lag in the usage of new technologies, however as the business climate changes and technological requirements are met, SMEs can theoretically implement them internally, as well as externally in the supply chain. Further research areas, such as virtual inventories and digital distribution, are specified in the last section of the paper

KEYWORDS: Supply chain, e-supply chain, e-collaboration, cloud computing, Macedonia

JEL CLASSIFICATION: M20, M11

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1. IMPACT OF SMES AND SUPPLY CHAINS IN MACEDONIA

SMEs⁴ represent one of the most important pillars in every national economy, as they create jobs and drive economic development in developing and advanced countries. SMEs account for 99,8% of all the companies in the European Union, which translates into 21,6 million SMEs on the territory of EU, employing over 88,8 million people, with 3,666 trillion euros in value added generated, comprising almost 28% of the total GDP.⁵ Analyzing the Republic of Macedonia, the percentages are similar – 68,539 companies belong to the SME classification (below 250 employees) from a total of 70,659, meaning SMEs participate with 99,7% of all enterprises in the country⁶. Compared to previous years, there is a gradual decline by 0,89% from 2013 (71,290 companies) and a staggering 5,32% (74,424 companies) compared to 2012⁷. This indicates that a large number of SMEs have failed in the last three years, focusing the problem on performance-related issues with these types of companies in Macedonia. On the other hand, SMEs still possess a dominant participation in the GDP of Macedonia (over 55%), and participate with 75% of the total employment in the country, which indicates their value in the national economy⁸. Because of the tough, changing business climate in Macedonia, SMEs can utilize supply chains and supply chain management to collaborate and achieve greater possibility of success.

1.1 Definition of supply chain and supply chain management

According to APICS (American Production and Inventory Control Society), a supply chain is defined as:

1. Processes which are necessary to transform and move raw materials as a final product to the end consumers, encompassing all involved entities

⁴ Small and Medium Enterprises

⁵ European Commission (2014) Annual Report on European SMEs 2013/2014

⁶ Republic of Macedonia State Statistical office (2015), Number of active business entities, available at <http://www.stat.gov.mk/PrikaziSoopstenie.aspx?rbrtxt=79>

⁷ Republic of Macedonia State Statistical office (2015), Key indicators from theme: Business Entities, available at <http://www.stat.gov.mk/IndikatorITS.aspx?id=22>

⁸ Republic of Macedonia State Statistical Office (2012), Announcement no. 6.1.12.13 on 24.02.2012

IMPLEMENTATION OF INTERNET TECHNOLOGIES IN THE SUPPLY CHAIN OF SMES IN MACEDONIA

2. Functions inside and outside the organization which enable the value chain to offer products and services to the end consumer⁹

Several authors focus on defining the term "supply chain management" (SCM). According to Ellram and Cooper (2003)¹⁰, it represents "an integrated philosophy of managing the entire flow of products from the distributor's channel, finishing with the end consumer". Monczka and Morgan (1997)¹¹ define that the integrated management of the supply chain begins with the external consumer and it focuses on managing every process (moving in a horizontal line) which is necessary to offer added value. Based on this definition, competition on the market does not ensue between companies, but between entire supply chains, consisting of multiple partner companies.

The supply chain connects all the partners of the company which are needed to create value (alongside products and services), including external parties such as distributors, resellers, IT providers, legal entities and etc. The managers of the SMEs included in the supply chain should be interested and concerned with the success of the other partner companies, because it directly correlates to the success of the entire supply chain. This is the primary reason why all constituents are working closely together to improve the efficiency of the entire supply chain, which will in turn increase its competitiveness and potential success on the market. The key aspect of supply chain management is to analyze the system as a whole, instead of analyzing separate processes at individual partner companies. The major benefit for SMEs is that supply chains are a method of collaboration and sharing resources (financial, technological, knowledge etc.) which are in most cases limited when functioning as an isolated single entity on the market.

⁹ Cox, J.F., Blackstone, J.H. and Spencer, M.S. (2005), APICS Dictionary, American Production and Inventory Control Society, Falls Church, VA.

¹⁰ Ellram, L., Cooper, M. (1993), "Characteristics of supply chain management and the implications for purchasing and logistics strategy", *International Journal of Logistics Management*, Vol. 4, No. 2, pp. 1-10.

¹¹ Monczka, R.M., Morgan, J. (1997), "What's wrong with supply chain management?", *Purchasing*, Vol. 122, No. 1, pp. 69-73

1.1 Disadvantages of the traditional model of supply chain and supply chain management for SMEs

Functioning in a unified supply chain can be the source of multiple advantages, as well as disadvantages for SMEs. Supply chains offers several key advantages, including shorter lead times, fewer operational disruptions, reduced inventory, better quality and customer service, faster innovation, and reduced risk. However, for the purposes of the paper, the main focus is on the disadvantages of the traditional model regarding SMEs, which will serve as a basis in comparison with the e-supply chain¹² and evaluating whether the new model can help overcome them. The absence of the SME perspective in the SCM literature is often raised by authors¹³. There are several key disadvantages concerning the traditional model:

High investments for implementation and maintenance

One of the biggest weaknesses of the traditional supply chain model, especially for SMEs, is the need to invest large quantities of time, financial and human resources for the implementation, as well as the optimal functioning of the supply chain¹⁴. Resources are needed at the very beginning of the implementation, because companies need to examine the market environment and evaluate potential partners for the supply chain, which entails market analyses and methods of research. In the implementation phase, SMEs must design and redesign processes to fit the needs of chosen partners, both internally in the organization, as well as externally in the entire supply chain. These activities require substantial capital investments from the company, meaning supply chains aren't a viable option to every SME.

Reputation risk

One of the advantages of supply chains for SMEs is the opportunity to outsource certain processes and activities, lowering cost and increasing expertise in the process. However, this carries the opportunity of reputation risk, which is defined by the Board

¹² Electronic Supply Chain

¹³ Park A., Nayyar G. and Low P. (2013), Supply Chain Perspectives and Issues, World Trade Organization

¹⁴ Giemenez, C., Lourenco, H. (2005), "e-Supply Chain Management: review, implications and directions for future research" available at <http://www.econ.upf.edu/docs/papers/downloads/769.pdf>

IMPLEMENTATION OF INTERNET TECHNOLOGIES IN THE SUPPLY CHAIN OF SMES IN MACEDONIA

of Governors of the Federal Reserve System as the potential that negative publicity regarding an institution's business practices, whether true or not, will cause a decline in the customer base, costly litigation, or revenue reductions¹⁵. Supply chains outsource company processes to external parties, which can lead to potential reputation risk across the whole chain, even if only one company is involved in unethical or illegal activities. For example, Apple was the focus of a wide array of articles in popular media outlets (including Reuters, New York Times and others¹⁶) concerning the scandal of exploitation of foreign (Chinese) workers in the factories of partner company Foxconn, which manufactures the hardware components for various Apple products.

Technological barriers

The process of integration of various partners throughout the supply chain requires constant information and knowledge sharing in real-time, which can represent a problem due to companies using different software packages, data or even entire management systems. This incurs additional expenses and time consumption needed to convert documents in the necessary format. From the perspective of SMEs in Macedonia, the process of licensing software programs is a tedious and expensive task. The licenses for Windows OS¹⁷ in Macedonia can vary from 32,5 euros (Basic) up to 130 euros (Professional). Financial penalties for using unlicensed software vary from 500 to 2,500 euros, depending on the situation. These high costs can be mitigated by using supply chain software from the cloud, which is further elaborated in part 3 of the paper¹⁸.

¹⁵ Federal Reserve System (2014), Supervisory Policy and Guidance Topics, available at http://www.federalreserve.gov/bankinforeg/topics/legal_risk.htm

¹⁶ Blanchard, B. (2012), Apple, Foxconn Scandal Highlights Exploitation Of Chinese Workers By Foreign Firms, available at http://www.huffingtonpost.com/2012/03/07/apple-foxconn-scandal_n_1325930.html

¹⁷ Operating System

¹⁸ Dano, D. (2011), Бизниси, користете легален софтвер или соочете се со казни, available at <http://it.com.mk/biznisi-koristete-legalen-softver-ili/>

Managing Product/Material Problems

Information flow can represent an issue when problems with products or materials occur¹⁹. Because supply chains are designed to break down the production process to separate activities and sub-activities, problems regarding materials must be monitored constantly and dealt with proactively. The traditional model of SCM uses outdated software packages which restrict communication and monitoring to a single factory/partner, preventing the flow of information and materials at the highest possible speed. With the limited available personnel in SMEs, communication breakdown requires postponement of crucial activities and coordination between partners to solve the problem, because in most cases SMEs don't have an employee dedicated to maintain the back-end (technologies and processes) of the supply chain.

Inventory Management

Another issue for SMEs is the process of managing and restocking inventory throughout the entire supply chain. Because each supplier has its own closed system of inventory management (software applications), updates are made individually (per company) on a daily, weekly or monthly basis, as well as when inventory supplies are low or critical. Even ADS²⁰ systems for inventory management²¹ are evaluating information and needs from a single partner, instead of the supply chain as a whole.

2. DEFINITION OF E-SUPPLY CHAIN MANAGEMENT

As elaborated in the previous section, the disadvantages of the traditional supply chain management model are predominantly caused by the absence of precise real-time information flow between supply chain partners. As a system, SCM develops synergies by integrating processes as a whole, even though they are located at separate

¹⁹ Lister, J. (2008), The Disadvantages of Integrating Internal and External Suppliers, available at <http://smallbusiness.chron.com/disadvantages-integrating-internal-external-suppliers-36054.html>

²⁰ Automated Decision Support

²¹ Jessup, L., Tansik, D. (2007), Decision Making in an Automated Environment: The Effects of Anonymity and Proximity with a Group Decision Support System, *Decision Sciences*, Volume 22, Issue 2, pages 266–279

organizations. According to Burke and Vakkaria²², to achieve the desired level of integration and coordination, the supply chain must optimize the flow of information among partners, which led to the emergence of e-Supply chains and e-Supply chain management.

SCM was defined as "coordination and integration of all activities from various companies as a unified process". By extension, Gimenez and Lourenzo define e-supply chain management as the effect of Internet technologies in integrating critical business processes, starting from the suppliers and finishing with the end consumers, as well as the flow of information between companies involved in the supply chain. Internet technologies influence the supply chain in two general areas:

1. E-business and e-commerce, which encompasses methods for carrying out activities such as procurement, sales, marketing and others via the Internet.
2. Knowledge and information sharing between companies in the supply chain by utilizing Internet technologies for real-time communication, which led to the emergence of e-collaboration

E-supply chain management combines the concepts of e-business, Web 2.0 and Internet technologies with traditional supply chain management models, the main goal being the improvement and optimization of the process of collaboration between supply chain partners, which will lead to enhanced knowledge sharing, real-time information exchange and resource usage²³.

2.1 Analysis of e-supply functions utilized by SMEs

To analyze the influence of e-supply chains on the disadvantages of the traditional model regarding SMEs, we must define the new methods and functions that are introduced utilizing Internet technologies. The influence of e-business technologies on the supply chain is extensive, and the general functions of the modern e-supply chain can be categorized in three distinct groups:

²² Burke, G. J, Vakkaria, A. J. (2002), "Supply Chain Management", Internet encyclopedia, Wiley, New York.

²³ Kokemuller, N. (2009), „Key Issues in Supply Chain Management" available at http://www.ehow.com/info_8036657_key-issues-supply-chain-management.html

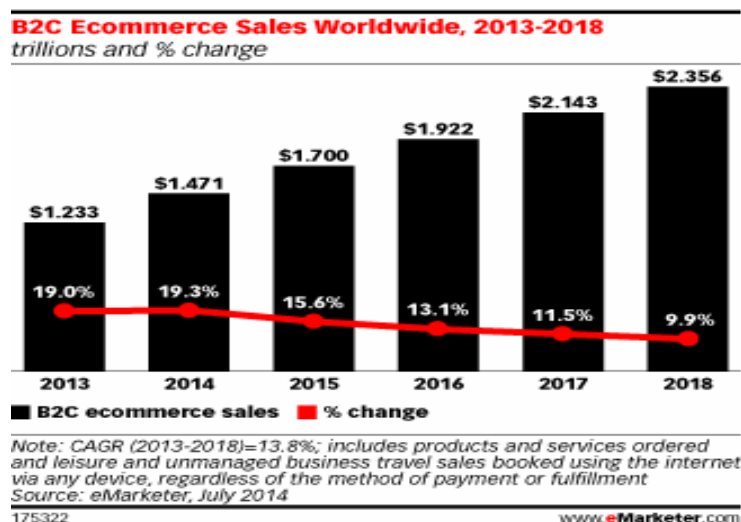
IMPLEMENTATION OF INTERNET TECHNOLOGIES IN THE SUPPLY CHAIN OF SMES IN MACEDONIA

1. E-commerce
2. E-procurement
3. E-collaboration

2.1.1 E-commerce

E-commerce²⁴ is defined as any form of business transaction in which the parties interact electronically, rather than by physical exchanges or direct physical contact²⁵. Companies are using the Internet as an additional, or even as the primary channel for communication and doing business. Internet channels differ from traditional sales channel in several aspects: types of consumers, different inventory management system, logistics requirements, quality of service, segmentation of the market, refund policies and etc.

Graph 2.1 E-commerce Sales



Source: <http://www.emarketer.com/Article/Worldwide-Ecommerce-Sales-Increase-Nearly-20-2014/1011039> (accessed on 18.06.2015)

Graph 2.1 (eMarketer, 2014²⁶) shows that B2C²⁷ e-commerce sales on a worldwide scale have reached approximately \$1,471 trillion in 2014, increasing nearly

²⁴ Electronic commerce

²⁵ Euro Info Correspondence Centre (Belgrade, Serbia) (2012) "E-commerce - Factor of Economic Growth;" available at <http://www.eicc.co.yu/newspro/viewnews.cgi?newsstart3end5>

²⁶eMarketer (2014), Worldwide Ecommerce Sales to Increase Nearly 20% in 2014, available at <http://www.emarketer.com/Article/Worldwide-Ecommerce-Sales-Increase-Nearly-20-2014/1011039>

²⁷ Business to consumer

IMPLEMENTATION OF INTERNET TECHNOLOGIES IN THE SUPPLY CHAIN OF SMES IN MACEDONIA

20% over 2013. As Internet usage is expected to mature, e-commerce growth will experience a slowdown in the next few years, settling around 10% by the end of 2018. Emarketer predicts that in 2018, e-commerce sales will reach approximately \$2,356 trillion, achieving a 10% growth rate over the previous year. These indicators clearly state that more companies will get involved in e-commerce, as well as e-supply chains.

Implementation of e-commerce in the e-supply chain brings its own set of improvements for SMEs, mainly focused on developing the JIT (Just in time) and CTO (Configure to order) systems²⁸. By utilizing e-commerce systems across the supply chain, processes such as manufacturing, customization or delivery are automated, while the data and information across the chain and partner companies is exchanged in real-time. Additionally, the system can store data regarding customer habits or demand levels, as well as production capacity, available inventory levels, product requirements and etc. Based on the data from various sources, the system will focus on optimizing operating costs and profits across the entire supply chain. The main advantage is transparency, meaning all processes and activities from each partner in the e-Supply chain are visible to other companies, which decreases order-to-delivery time and increases the response time to problems or risks in the distribution channel. One additional benefit for SMEs is the possibility to have a sales channel open 24 hours throughout the week (including weekends), with the majority of tasks being automated, which is of significant relevance due to the limited personnel available.

2.2.2 E-procurement

As discussed in the previous section of the paper, modern production capacities demand flexibility in the SCM process, mainly due to increased levels of competition, constant change in consumer preferences, reduced product life-cycle and the need for personalization of product and services. The Internet can serve as the technological platform to optimize procurement of necessary materials in the production cycle of an SME supply chain. E-commerce and e-procurement can be observed as similar

²⁸ Chen, F., Drezner, Z. Ryan, J.K. and Simchi-Levi, D. (2000), "Quantifying the Bullship Effect in a Simple Supply Chain: The Impact of Forecast," *INFORMS Journal of Management Science*, Vol. 46, No. 3, pp. 436-443.

IMPLEMENTATION OF INTERNET TECHNOLOGIES IN THE SUPPLY CHAIN OF SMES IN MACEDONIA

processes, but there are several key aspects of difference. E-commerce focuses on selling and buying between the companies in the supply chain and consumers (B2B²⁹ and B2C), while e-procurement refers to partnership between two or several companies in the e-supply chain. E-procurement is already used extensively in e-supply chains and SMEs generally develop one of three different strategies³⁰. The first is strategic partnership, which focuses on forming long-term relationship with a single supplier, with the main goal being the achievement of lower prices on each successive order. Utilizing e-procurement, SMEs in the e-supply chain (the production company and the supplier) can install ADS systems which monitor data from both sides, and automatically optimize orders based on the quantity needed, available materials, level of inventory and a number of other factors.

The second strategy is online procurement, where SMEs utilize the scope of the Internet to seek the best price/performance ratio for the materials needed. The third strategy represents a combination of the previous two, where long-term relationships between companies in the supply chain are established and the processes are optimized with the implementation of ADS systems, although whenever supplies are limited or the price is too high, the system can automatically search for new suppliers and evaluate offers. Through the use of Internet technologies, SMEs can quickly find replacement for the existing supply chain partners when needed, minimizing downtime and delays in production. Nissan is the first company that enabled consumers to personalize selected automobile models via the Internet. Afterwards, the vehicle is being assembled and delivered in 7-10 days from the point of purchase³¹. This type of production process entails total integration of Nissan's factories with the supply chain partners, which are required to deliver the necessary time in the shortest time period.

²⁹ Business to business

³⁰ Peleg, B., Lee, H. and Hausman, W. (2002). "Short-Term E-Procurement Strategies vs. Long-Term Contracts", *Production and Operations Management*, Vol. 11, No. 4, 458-479 .

³¹ Nissan (2010), Nissan Partners with Original Wraps, Inc. for Graphic Personalization of New NV Commercial Van available at <http://www.nissancommercialvehicles.com/news-events/details?id=17>

2.2.3 E-collaboration

Although e-commerce and e-procurement are gaining traction in the last few years, the most valuable contribution from the e-supply chain arrives from the process of e-collaboration³². E-collaboration is operationally defined as collaboration using electronic technologies among different individuals and companies to accomplish a common task³³. The interaction that occurs via e-collaboration isn't limited to buying and selling products and materials, and can be better defined as forming relationships and cooperation between two or more companies. Part of the activities that are involved in these types of interactions are³⁴:

- ✓ Knowledge sharing
- ✓ Integration of systems between partners
- ✓ Collaborative decision making
- ✓ Collaborative design of processes and activities
- ✓ Resource sharing

From the listed activities, the most important under e-collaboration is knowledge sharing, which is now available in real-time between each partner involved in the e-supply chain³⁵. Through e-collaboration, companies in the supply chain can design products and services collectively, driving innovation outside the boundaries of a single company. Both traditional and e-supply chains face a new challenge in consumer behavior that is caused by the mass adoption of Internet technologies, which is the need for mass personalization of products and services³⁶. Mass customization can be viewed as collaborative efforts between customers and manufacturers, who have different sets of priorities and need to jointly search for solutions that best match

³² Electronic collaboration

³³ Cock, N., (2008), A Basic Definition of E-Collaboration and its Underlying Concepts, Texas A&M International University, USA

³⁴ Cattani, K., Souza G.C. (2002), "Inventory Rationing and Shipment Flexibility Alternatives for Direct Market Firms," Production and Operations Management, Vol.11, No. 4, pp. 441-457.

³⁵ Lee, H., Tang, C.S. (2000), "The value of information sharing in a two-level supply chain", Management Science, Vol. 46, No. 5, pp. 526-533.

³⁶ Barkworth, H. (2014), Six Trends That Will Shape Consumer Behavior This Year, Forbes Magazine, available at <http://www.forbes.com/sites/onmarketing/2014/02/04/six-trends-that-will-shape-consumer-behavior-this-year/>

IMPLEMENTATION OF INTERNET TECHNOLOGIES IN THE SUPPLY CHAIN OF SMES IN MACEDONIA

customers' individual specific needs with manufacturers' customization capabilities³⁷. As SMEs are limited in resources, new functions under the e-collaboration model, e-design and e-planning) can be used to satisfy customer demands.

E-design

Regarding e-design, there are several different definitions of the meaning and use, which mainly place the process in two categories. The first category defines e-design as engineering design, where the term refers to software packages on a single or multiple computers to enable engineers to design products, materials and etc³⁸. The second, more modern definition views e-design through the e-business environment, where the process refers to collaborative design and innovation between two or more companies, using available Internet technologies (Jonchevski, 2014). Traditionally, companies rely on their own internal resources and capacities to design products, and in some cases may include proven partners in the process. Mass personalization, on the other hand, requires SMEs to involve partners in the design process, meaning a new model for collaboration and design is needed. Through the e-design platform, SMEs can seamlessly involve additional internal and external teams in the design process, including end-consumers. An additional benefit is the opportunity to test alternative versions and designs of the product, while acquiring feedback in real-time.

HP (Hewlett Packard) is one of the first companies which adopted this principle, dating back in 1997. Instead of delivering standardized products (printers) to consumers, the company abandoned the traditional approach of manufacturing and closely collaborated with internal and external teams at different factories to achieve mass personalization. The main advantage, besides customer satisfaction, was the ability to personalize the printer at regional distribution centers, for example in Europe and USA, instead of the factories which are situated in China³⁹.

³⁷ Chen, S., Wang, Y. and Tseng, M. (2009), Mass Customization as a Collaborative Engineering Effort. *International Journal of Collaborative Engineering*, 1(2): 152-167

³⁸ Chang, K.H. (2015), *e-Design*, 1st Edition: Computer-Aided Engineering Design, Academic Press, page 309

³⁹ Feitzinger, E., Lee, L. H., (1997), Mass Customization at Hewlett-Packard: The Power of Postponement, *Harvard Business Review*, January-February Issue 1997

E-planning

E-planning is based on the e-procurement model, but extends it with sharing critical business information across the entire supply chain. The e-planning model is completely opposite of the traditional paradigms, which generally state that all the key information about the business should stay inside the organization. Companies, including SMEs, hold information at operational and tactical level, while decision-making is situated at strategic level. In this model, different SMEs possess (or lack) different information, which can lead to incomplete or misguided decisions about key processes. Collaborating with supply chain partners on a single online platform eliminates the risk of incomplete information sharing, as well as the need of standardization of data and applications. The new model encourages information sharing through EDI⁴⁰ and ERP⁴¹ systems, which are further elaborated in the next section of the paper.

3. PRECURSORS FOR IMPLEMENTING E-SUPPLY CHAIN MANAGEMENT IN SMES IN MACEDONIA

The discussed implementation of internet technologies in the traditional model of supply chain and supply chain management has several different requirements that have to be met, both from the point of an individual SME and supply chain partners. Part of the requirements necessary aren't exclusively tied to e-Supply chain functions, and are almost always a part of the general requirements related to the implementation of Internet technologies.

3.1 Meeting technical requirements

Before the actual implementation process begins, SMEs must ensure that the main requirement, an eligible Internet connection, is achieved. The e-supply chain model and functions presented in the paper underline that, by default, huge information sharing and exchange will take place continuously, implicating that a fast internet connection with the necessary bandwidth represents a core requirement. In the past years, SMEs

⁴⁰ Electronic Data Interchange

⁴¹ Enterprise resource planning

IMPLEMENTATION OF INTERNET TECHNOLOGIES IN THE SUPPLY CHAIN OF SMES IN MACEDONIA

in Macedonia had inadequate offers from ISPs⁴², which included limited speed, bandwidth and geographical coverage.

Graph 3.1 Internet packages for SMEs in Macedonia

Provider	T-home	Blizoo	Telekabel
Speed	70 Mbps download/upload	50 Mbps download/3 Mbps upload	25 Mbps download/2Mbps upload
Transfer	200GB per month	Unlimited	Unlimited
Price	30,6 euros including tax	21,1 euros including tax	24,4 euros including tax

Sources: http://business.telekom.mk/mk/273/Internet/Optic/Office_Complete_Optic.html,
http://blizoo.mk/internet_50.html,
<http://telekabel.com.mk/index.php/mk/%D0%B8%D0%BD%D1%82%D0%B5%D1%80%D0%BD%D0%B5%D1%82>

Graph 3.1 shows that, in recent years, the offers from ISPs have expanded, meaning suitable Internet packages with 50 Mbps⁴³ download speed and 3 Mbps upload speed are guaranteed for prices starting at 21,1 euros. The paper does not aim at providing a recommendation regarding the most suitable package from the presented ISPs, primarily for two reasons – the price, as well as download and upload speed are subject of constant change, while the second reason is stability, which is important, especially when implementing functions such as e-commerce and e-procurement that require constant up-time. The stability of the selected Internet package can vary depending on the number of users, as well as the geographic region in which the SME operates.

Additionally, SMEs must ensure they possess the hardware and software components necessary for implementation of e-supply chain functions. Specific recommendations cannot be made, because the hardware and software requirements vary between implementations. It is suggested that SMEs carry out an analysis of the

⁴² Internet Service Provider

⁴³ Megabits per second

requirements of the implementation and functions and compare them with the available hardware and software.

3.2 Implementation of EDI systems

EDI is defined as electronic communication method that provides standards for exchanging data via any electronic means⁴⁴. EDI is intensively used in a collaborative environment, especially in functions such as e-planning and e-design. When using the same standard for data formatting, two organizations, even in different countries, are enabled to electronically exchange documents (such as purchase orders, invoices, shipping notices, and many others). One of the biggest problems for SMEs regarding EDI is the cost of implementation. According to the EDI group, the investment can vary from 2,600 to 26,000 euros⁴⁵, a significant financial burden for SMEs, which are characterized with limited resources.

The high initial investments for EDI can be potentially mitigated by utilizing services from cloud computing providers. For example, FreeAgent offers a variety of cloud services, including project management, banking, invoices and etc., for prices starting from 17,6 euros per month⁴⁶. One disadvantage in using cloud services is the vendor lock-in strategy, meaning all the supply chain partners have to subscribe to the same services (in this case FreeAgent) for the exchange of data (EDI) in standard formats. Another disadvantage is related to the previous section regarding ISPs and Internet packages. Cloud services, by default, require an Internet connection to function and don't offer an offline mode of work, meaning key activities across SMEs can be interrupted if the Internet connection of one SME in the supply chain is facing problems.

3.3 Implementation of ERP solution

ERP is aimed to be a single software program that serves the needs of every department in the organization, runs off a single database and employees can easily

⁴⁴ Kantor, J., Burrows, H. (1996). "Electronic Data Interchange (EDI)". National Institute of Standards and Technology

⁴⁵EDI Group (2004) Cost of implementing EDI, available at http://www.csi-india.org/c/document_library/get_file?uuid=434f261e-5a9e-46df-a5b6-d6e8936f28cd&groupId=12177

⁴⁶ <http://www.freeagent.com/pricing>

IMPLEMENTATION OF INTERNET TECHNOLOGIES IN THE SUPPLY CHAIN OF SMES IN MACEDONIA

share information and communicate with each other⁴⁷. From the aspect of e-supply chain functions, e-procurement takes advantage of installed ERP systems and interconnects them between multiple SMEs. Fast data transfer represents just a small part of ERP systems, which indicates that internal and external processes also have to be optimized (or automated) to achieve all the benefits from the e-supply chain. For efficient use of ERP systems, SMEs in the supply chain have to map all the processes on strategic, tactical and operational level. The implementation and maintenance of ERP systems across the e-Supply chain (with 7-10 concurrent users) vary from 53,000 euros to 80,000 euros⁴⁸. The following estimate is based purely on the software implementation and maintenance, meaning further costs will be incurred for necessary hardware, as well as software upgrades in the following year. By using cloud computing, beside the cost of EDI systems, SMEs can minimize the cost of ERP solutions. There are many different providers on the market (SAP, Oracle, Rootstock, Epicor etc.), with prices ranging from 3,500 euros to 500,000 euros⁴⁹ on a yearly basis. However, the same disadvantages, including vendor lock-in and stability issues, apply here as in the use of cloud computing EDI solutions.

4. CONCLUSION AND FURTHER AREAS OF RESEARCH

In the modern business world, it is very difficult to achieve a secure competitive advantage, as every advantage is momentarily. For these reasons, the aim of organizations should not be to secure a short-termed temporary advantage, however, to work on continuous improvement through implementation of new solutions according to the changes in the market and industry, the changes of the organization itself as well as the changes of the customers and suppliers⁵⁰. The paper has shown that, the

⁴⁷ Wailgum, T. (2007), ERP Definition and Solutions, available at <http://www.cio.com/article/2439502/enterprise-resource-planning/erp-definition-and-solutions.html>

⁴⁸ Chan, W. (2013), How Much Does An ERP System Cost?, available at <http://www.calsoft.com/blogs/how-much-does-an-erp-system-cost/>

⁴⁹ Top10ERP (2015), Side by Side Comparison for Cloud-Based (Saas), available at <http://www.top10erp.org/erp-software-comparison-cloud-based-saas-platform-566>

⁵⁰ Pulevska-Ivanovska, L., Kaleshovska, N. (2013). Implementation of e-Supply Chain Management, TEM Journal, 2(4), pp. 314-322.

IMPLEMENTATION OF INTERNET TECHNOLOGIES IN THE SUPPLY CHAIN OF SMES IN MACEDONIA

utilization of the e-supply chain, its functions and cloud computing software can lead to significant benefits for SMEs as partners, such as close collaboration, knowledge sharing, resource sharing and real-time information flow. The model carries some disadvantages and barriers that are briefly examined in the paper, such as the risk of vendor lock-in when implementing cloud computing technologies and applications, technological requirements and limitations, as well as potential high investment if SMEs opt to acquire their own hardware and software necessary for the e-supply chain implementation. An area of potential further research is the actual cost of cloud computing implementation of e-supply chain functions versus traditional model of SMEs owning hardware and software. Although cloud computing variants require significantly lower initial investments, total costs have to be examined on a one year, three year and five year basis to provide an outlook of all the future investments for maintenance of both platforms.

Although the benefits can be promising on paper, research has to be made concerning the actual implementation of e-supply chain technologies in SMEs in Macedonia. The actual situation in Macedonia (whether SMEs implement traditional or e-supply chain management) can also be examined to better understand the level of readiness of Macedonian SMEs for implementing such technologies, as well as existing and potential barriers (internal and external to the organization) which may prevent such efforts. Further research may examine specific e-Supply chain distribution methods, such as virtual inventories, virtual fulfillment and digital distribution, which can provide additional benefits in line with the limited resources these types of organizations possess.

IMPLEMENTATION OF INTERNET TECHNOLOGIES IN THE SUPPLY CHAIN OF SMES IN MACEDONIA

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