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ETHICS AND MODERN ENTREPRENEURSHIP

Maria Kicheva – Kirova¹ Stoyan Kirov²

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Abstract

The entrepreneurship is based on an individual or a group initiative. It aims a profit within the range of socially approved norms and values. At the same time, entrepreneurship is a culture of economic behavior, values and above all, a way of thinking. There are conflicts sometimes between the individual and the group interests of entrepreneurs.

In other cases, the conflicts of interest are between entrepreneurial and public interests.

For this reason, the problem of social responsibility of entrepreneurs is actual. The existing quantitative measures for entrepreneurship - profitability and qualitative ones - efficiency, measure the economic result of the business.

Sometimes more important are the public measurements - a contribution to the development of a democratic society; the market economy (through competition); ownership, middle class creation; increasing employment and regional economic development. However, the role of the entrepreneurs in building and promoting the values and culture of entrepreneurship in the society is indisputable.

Keywords: *entrepreneurial ethics, entrepreneurship, market ethics, managerial ethics*

JEL Codes: *L26*

1. Introduction

Peter Drucker believes that "entrepreneurship is a dividing line for both the individual and the institution. It is not a personal feature, but anyone with the ability to make their own decisions can learn to be an entrepreneur and behave like an entrepreneur. Therefore, entrepreneurship is more a behavior than a personal feature" (Drucker, 1992, pp. 36-37).

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The market is the environment in which the entrepreneur operates. The market is not just any set of sellers and buyers of a particular product (product or service). It is a complex system of relationships in which its rules operate. The relationships between sellers and buyers in the market are governed by laws and regulations. The more developed the market economy is, the better this kind of legislation is. The relationships among people in the field of entrepreneurship (including within business organizations) are governed apart from the written laws (and probably to the same extent) by unwritten laws of the market - by market ethics.

This topic is much broader than the unwritten laws of relationships, namely the behavior of the entrepreneur and his image, business etiquette, ability to manage people, etc. The entrepreneur deals not only with resources, machines and products, not only with various documents, processes of production, delivery and sale. He deals constantly with people - manages people, consults with specialists, talks with partners, communicates with the working team. As a result, how well he is doing depends on his image, authority and the success of his business.

Entrepreneurship is a profession, a vocation, but it is also a special way of thinking, behavior, style. Entrepreneurship is a culture. Entrepreneurial culture consists of the inherited elements of the entrepreneurial value system, social practice, ethics and moral. According to the specialized literature in this respect there are two main types of cultures that have an active influence on entrepreneurship in Bulgaria. In this development it will be revealed the problem of business ethics in the broad range of this concept. It will focus on entrepreneurial ethics. It will analyze the cultural, social and value elements of entrepreneurial behavior.

2. Problem statement

2.1. Market ethics

The logic of forming market relations in Bulgaria involves linking our economic system with the global economic processes. In this regard, the issues of comparing diametrically opposite humanitarian and psychological principles of the economies of Western Europe and Bulgaria are of a particular importance.

The experience of the businessmen in establishing economic relations with foreign partners convincingly show that the Bulgarian businessmen understand very well the fundamental values in the market. This circumstance, together with the political situation in the country, significantly affects to the willingness of potential foreign partners to invest in the Bulgarian economy. The market is not

just a place for buying and selling goods, it is not a "bazaar", but above all a special logic, psychology, ethics, in one word, a significant cultural layer that must be prepared in advance. It is not the market that is immoral, but those who bring in it the spirit of profit, greed, disrespect to the buyers, sellers and competitors. The civilized market is based on unwritten laws, rules of the game and such moral categories as nobility, reliability, decency, solidarity. There are certain anti-market economy attitudes and stereotypes of thinking, such as those attitudes of public consciousness that slow down the improvement of an effective market economy based on the use of free market mechanisms. There is no doubt that business vices are a kind of derivative of the general state of public morality.

Many companies in many countries have this principle: "Profit is above all, but the honour is above the profit". But many entrepreneurs have different principles such as: "Profit at all costs", "Money does not smell", "Everything is allowed in trade", "If you are not fooling - you are not selling", etc. How was it before? The business ethics of Bulgarian traders are legendary, as hundreds of deals were concluded with only a nod of the head, the word of the trade was more valuable than gold and the life was the guarantor of that word. Today, worldwide, market relationships are based on trust between partners, their integrity, sense of duty and others. This is at the heart of the business ethic of the entrepreneur - the businessman. For the entrepreneur, this word is a law. In United States and Japan, multimillion-dollar deals are made over the phone and no one doubts about their reliability.

The majority of the entrepreneurs who are accustomed to work in civilized markets trust each other, for them the word really is a law. There are exceptions of course. It is natural that there are entrepreneurs in every society who do business dishonestly.

2.2. Moral values in the market

Ethics is the doctrine of morality and the rational use of freedom. Freedom is the most important precondition for independence. In a totalitarian society, the individual has no choice. Freedom presumes that people voluntarily make their choices, consciously switch to restrictions when necessary. In fact, the market selling process is always a compromise between seller and buyer. The market economy, among other things, is an unrivalled mechanism that allows the use of competition to turn a person's selfish interest into a public welfare.

There are certain moral standards which allow these compromises to be found. Here are some of them:

1. The concept "At the service of the public", which - thanks to internal corporate policy which involve all employees of the company from the president to the last employee. Customer Service at a Reasonable Fee is the cornerstone of their ideology. "The welfare of the manufacturer," writes Henry Ford, "ultimately depends ... on the benefits he brings to people";

2. Paradoxically, disregard for money. Money is not a goal for the entrepreneur, but just a tool used to achieve a goal. Money is in a constant flow, in circulation. This is exciting and it is the major wealth of the entrepreneur. The lack of a cult of money makes the entrepreneur relieved, enables him to take reasonable risks;

3. It follows logically the constant dissatisfaction from results of all previous experience and a sense of healthy ambition, which does not fade away over the years. Business is not only a result, but also a process. The entrepreneur, like the writer, always thinks that the main book is ahead of him. This constant focus on success, the desire to solve increasingly complex and larger tasks, is his "business card";

4. Honesty, sincerity, frankness. The honesty of the entrepreneur is an indispensable attribute of the style of business relations, as the smallest "stain" on his image can lead to serious financial losses and often bankruptcy. In a competitive environment, honesty is a useful quality. A number of associations of entrepreneurs by profession - unions, guilds, associations, not only the state are empowered to regulate the activity of their members in the interest of consumers - to ensure fair and ethically business practices which allow fair competition. In addition, such associations have a professional code of honour that describes a series of actions that members recognize as an unethical.

5. Pride of your business, regardless of its area and range. Any business that brings satisfaction to customers and generates revenue is prestigious. The basis of this approach is high professionalism, self-confidence.

6. The business success should not be achieved by environmental destruction.

7. "The profit sharing must be open to all who participate in its creation."

1. Complete absence of habits and traditions of our entrepreneurs, especially in service industry. It is not accidental that when hiring staff for numerous companies (shops, cafes, hotels), there is often a lack of experience among applicants for work in the trade, catering and hospitality industries.

2. The inferiority complex, the humbleness, the fear of reaching the target, the psychology of not a winner, but always a loser are elements

which blocks a successful entrepreneurship. At the same time - the hope for an almost immediate, improvement and success, but without relying on its own efforts, self – confidence, constancy.

3. Intolerance, unhealthy desire to "trample", humiliate, unwillingness to seek compromise.

4. The psychology of renters among some of the businessmen is explained, on the one hand, with the standard of living and, on the other hand with the uncertainty about the future.

5. Striving for restriction of the competition, monopoly, relying on "attraction".

6. The image of the businessman, the entrepreneur show his style of thinking, way of dress and behavior. A successful businessman pays attention to make a good impression, but that does not necessarily means that he or she must be dressed in an expensive suit. It can make a good impression without a smart suit. Long-term partners do business, paying little attention to the way the partner is dressed. The image is the important one.

Throughout its history, mankind has developed only three fundamentally different instruments of management - to influence the people.

1. Hierarchy, an organization where the main means of influence is the attitude of subordination, pressure on the person from above, through compulsion.

2. Social norms, attitudes, patterns of behavior, rituals, culture, ethics, values developed and recognized by society that force one to behave in that way and not otherwise.

3. The market, a network of horizontal equal relations based on the sale of products and services, on property relations, on the balance of the interests of the seller and the buyer.

These happenings are complex, they are not just "management tools". All of them almost always exist in real economic and social systems. It's just about prioritizing whom is given the priority, what is the main share. This determines the essence, appearance of the economic organization of the society.

There was an administrative-command system in Bulgaria for a long time. At its core was hierarchy, the most powerful management tool. But at the same time, there was a "solid" ethic when the traditions and social norms of society exerted a great influence on the people in the process of governing. Party ideology and membership have successfully helped to govern.

Nowadays, when the administrative-command system is gone, has gone also the ethics of relationships, including business relations. Entrepreneurship ethic is a reflection of ethical standards in society. Socialist ideology is over, but what's left? How do we behave with the Bulgarian entrepreneur? How is business managed in the new system of economic relations? Most likely, with the time being, the current situation will change and the market management tools too. The "ethical relations" will gain more weight, their balance will be balanced, as in all civilized countries.

2.3. Ethics and modern management

People, who believe that organizations must increase profits by obeying the law are likely to add high value to increasing the profit, efficiency and strict compliance of the law, and low value for the altruism. Such people believe that the organization is behaved properly and it is socially responsible, as long as its actions conform to this value system. In order to make choice for right behaviour, it is important to have an initial understanding of ethics. Ethics deals with principles that determine right and wrong behavior. Business ethics however addresses not only the issue of socially responsible behavior. It focuses on a wide range of behavioral capabilities of the rulling class and people. In addition, the focus is on both the goals and the means used to achieve them by both sides.

The actions of the entrepreneurs or of the ordinary workers who break the law should also be considered as unethical. However, actions that do not violate the law could be considered as unethical, but also may not be considered as unethical, it depends on the personal value system.

Ethical problems in business are related to the conflict, or at least the likelihood of such conflict among the economic indicators of the organization, the measures of income, costs and profits, indicators of its social responsibility, expressed as obligations to others both within the organization and in society.

In addition the senior executives who often show unethical corporate behavior, anyone within the organization can also act unethically. This, for example, is the ability to use personally what is intended for the company. People willing to break the law are willing to act unethically.

The reasons for expanding the unethical business practices include:

- Competition that marginalizes ethical considerations;
- The growing desire to show profitability;
- Failure to ensure that managers are properly paid for ethical behaviour;
- A general reduction of the importance of ethics in society, which gradually excuses unethical behavior at the workplace;

- Pressure from the organization toward ordinary workers in order to find a compromise between their personal values and those of the managers.

The main influence to take unethical decisions by employees is the behavior of their managers. Thus, by acting ethically, the manager can significantly influence the ethics of the behavior of his employees. It is necessary to list some qualities which a manager must have in order to be successful in business and to find a complete understanding of his employees. A manager will be better accepted by people if he or she sticks to the rules of business ethics.

2.4. Conditions for the formation of a civilized entrepreneurial ethic

Entrepreneurship ethics can not appear by our wish. Its formation is a complex and a long process, in which the very entrepreneurs, as well as various state institutions, media, etc. take part. It is about creating of the necessary prerequisites for intensifying this process, giving it an ideological orientation, as the society is not indifferent to what moral principles will form the basis of the business ideology.

The basis for the formation of a civilized entrepreneurial ethics are:

- FREEDOM - both political and economic. A democratic state, a multi-party system, freedom of speech; the press; conscience, free competition of producers of goods, freedom of choice of economic legal entity, free pricing, equality of all individuals and legal entities in the pursuit of entrepreneurial activity, consumer sovereignty and others;

-STABILITY - strong executive power, parliamentary means of political struggle, stability of legislation;

Propaganda - use of mass media to create the image of a successful entrepreneur with high moral principles, condemning corruption, greed, unfair competition;

- The right is not only the normative consolidation of the general socially acceptable standards of conduct, which regulate the activity of the entrepreneur, but also no less the fight against the negative effects in the local business environment. In compliance with the law, the present right of the owner must become an indispensable attribute of the market ideology of the business.

In addition, it should be taken into consideration that in the beginning, while traditions have not been yet formed, the role of legal regulation is particularly responsible for the common moral values of market participants. It is important not only to write good laws, but also strictly to adhere to them. There should be appropriate mechanisms to control not to break them;

ASSOCIATIONS - establishment of professional associations of entrepreneurs. They must become an impartial arbitrator in assessing the moral level of their members and to apply the most stringent measures in case of violation of the group moral.

2.5. Business ethics at the international level

It is becoming increasingly apparent that, acting in their own interests, multinational corporations must be seen as intermediaries in the exchange that determines economic and social development. Like it or not, such corporations often influence decisively and for a long time the economy of some countries. Therefore, the impact on local culture, institutions, religion and lifestyle should be carefully assessed. That's why it is necessary periodically to be required "an audit of the impact over the ethics".

Ethical issues must be an essential element of the planning process. Problems created by the actions of the multinational corporations in the absence of such analysis are subject to regulation by the host government. It is therefore in the interest of every multinational organization to establish common ethical principles for operations in all regions of the world and at the highest possible level and to follow them strictly and consciously.

Standards for ethical behavior vary from country to country. Behavior is often determined by the application of the law, not by the actual existence of the law. There is no "upper" boundaries for the ethical behavior. Multinational organizations are characterized by a high level of ethical responsibility and accountability. The country's attention to ethics is increasing with increasing levels of economic prosperity.

Multinational organizations should follow these guidelines:

- Develop ethical standards applicable worldwide.
- Consider ethical issues when developing a strategy.
- Leaving a suspicious market in case of major undecided ethical issues.
- Preparation of periodic reports on "ethical impacts".

3. Conclusion

It is made an attempt to reveal the issue of business ethics in this development. For this purpose are used publications of specialists as well as personal experience. The process of developing the problem is shown from two perspectives: how it should be and how it is really. A number of examples show that Bulgarian entrepreneurs have not joined the unified system of rules for relations among people in the field of entrepreneurship yet.

In the process of time, we hope that these rules of the market game, the code of ethics and standards of conduct for the entrepreneur will become a reality in Bulgaria.

The issue of business ethics in general has already been discussed. These are codes of conduct, but also norms relating to the entrepreneur. Now these postulates of the professional ethics of the entrepreneur can be the basis of the entrepreneur's code of ethics.

How a Civilized Entrepreneur can be defined:

- is convinced of the usefulness of his work, not only for himself but also for others, for the society;
- proceeds from the fact that the people around him want and know how to work, strive to realize themselves together with the entrepreneur;
- believes in business, considers it as an attractive creativity, treats business as art;
- recognizes the need for competition but also understands the need for cooperation;
- respects himself as a person, and respect every person - as himself;
- respects each property, state power, social movements, social order, laws;
- trusts himself, but respects the professionalism and competence of others;
- evaluates education, science and technology, culture, respects the environment;
- striving for innovation;
- does not delegate the responsibility for making the right decision to the subordinates;
- is tolerant of people's shortcomings;
- coordinates the goals of the enterprise with the personal goals of the employees;
- never humiliates anyone;
- has endless patience.

As mentioned above, the entrepreneur needs to create his own image, to stick by the ethics. He must clearly be aware that such features of conduct as courtesy, tact, delicacy are absolutely necessary not only for "the ability to lead himself in society" but also for ordinary everyday life.

We must not forget about the culture of communication, the sense of measure, benevolence, and complete control of our emotions. It should have its own civilized style of behavior, its own noble image, the very image of an entrepreneur which guarantees not only half of success but also constant satisfaction of the activity.

To master the skills for proper behavior, he must stick to:

- presentation and introduction rules;
- making business contacts rules;
- rules of conduct by negotiations;
- requirements for appearance, manners, descodes;
- requirements for way of speaking;
- culture of keeping official documents.

In conclusion, it remains to be added: the more entrepreneurs are interested in long-term and exciting success, the more people will think about the problems of ethics in general and entrepreneur ethics in particular. The increasing number of people who "read the code of ethics" will put our country equal to the countries where the civilized market already exist.

REFERENCES

Avramov, R. (2007). *Communal Capitalism. From the Bulgarian Business Past*. Bulgarian Science and Culture Foundation

Crafts Act, 2008

Dracker, P. (1992). *Innovation and Entrepreneurship*. Publishing house Hr. Botev, Sofia

Koev, Y. (2015). The Entrepreneurial Idea. Review and Reinterpretation. Steno

Small and Medium Enterprises Act, 2008, www.lex.bg

Todorov, K. (2011). Business Entrepreneurship. BARMP

Union of Free Entrepreneurs - Materials, 2007, www.lex.bg

MENTAL HEALTH LEVELS OF STUDENTS OF A STATE UNIVERSITY

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Abstract

We present a study that allows visibilization of the mental health importance in young university students, associating their own evolutionary conflicts as risk and/or protection factors in the manifestation of depressive, anxious or stress episodes. Methods: a questionnaire is applied to 533 students at a state university. Results and Conclusions: Their main results present significant percentages for adaptive disorders, mood disorders, anxiety disorders, eating disorders and potential suicidal behaviour. In addition, it should be noted that a high percentage of the population consulted presents clinical alterations linked to anxiety and depression.

Keywords: Psychological well-being; mental health; University students
JEL Codes: I12, I23

1. Introduction

Mental health is a current concern each time the postmodern society living standards are centered on immediacy, individualism and competitiveness, which

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lead personal self-efficacy evaluation in diverse contexts, seems diminished, generating a higher risk in the manifestation of anxiety or other alterations linked to psychic health. In that sense, malaise and mental health begin to be part of our daily life, increased under the neoliberal system of which we are part as Western culture (Estay Sepúlveda et al., 2018; Lagomasino et al., 2018) and is reflected crossing borders from the amorous life (Bauman, 2005) to the eagerness of workers to survive in their daily life (Estay Sepúlveda et al., 2019).

This search for well-being associated with self-efficacy is even more evident in the university population, which allows adjusting emotional and affective life, each time the consolidation of identity it is required to have a social feedback regarding individual performance. However, in the understanding that psychological well-being can be influenced by the action of personal factors such as self-efficacy and perceived social support (Pillado and Almagiá, 2019), the inadequate development of this process can alter personal self-perception and trigger the manifestation of feelings of maladjustment, insecurity or other fertile scenarios for the presence of disorders of more complex approach and resolution.

Being clear that the connection between the structural dimensions and health or well-being would occur through the intervention of a set of variables such as; coping style, self-esteem and social support (Moyano-Díaz, 2017), the reflection arises regarding the way in which this connection occurs in the university population, just getting out of adolescence and trying to adapt to the challenges of the adult world. These late adolescents or emerging adults are built in the social world and from the social world by investing their emotional capital in interaction with others. As Barrera-Herrera (2017) puts it, emerging Chilean University adults are in a transition stage, focused on themselves, but also on their family and social relationships, interested in exploring the diversity presented to them, and for them, it is not yet time to advance to adulthood, as they move through the university stage slowly, without hardship, living in the present and its associated psychological processes. Here, at the same time, Institutions of Higher Education have the duty to provide a solid ethical formation, which will result in the society in which future professionals are and will be inserted (Soto et al., 2019; Véliz et al., 2018).

For this reason, it results relevant to enquire how the complexity of this transit is evidenced and how this affects the well-being perception, since an adequate support perception allows to implement more effective coping methods instead of incurring in stress avoidance strategies that harm health (Pillado and Almagiá, 2019). The reduction in stress levels as the academic years go by

can be explained by adaptation or transient coping phenomena, where students learn to use emotion and/or problem-specific strategies to deal with the stressor agent, which is called positive stress (Vilchez- Cornejo et al., 2016).

A study conducted in undergraduate Chilean students by Rossi et al. (2019) leads to the assumption that the high prevalence of depressive symptomatology in the subjects who participated in the study is related to specific University life conditions. Barrera-Herrera et al. (2019) state that as can be observed, there are high prevalence figures of depressive, anxious and stress symptomatology in University students, and gender sociodemographic variables and socioeconomic level constitute risk factors for the presence of this type of symptomatology. By making a detailed analysis of the available evidence in these three symptomatological cases (depression, anxiety and stress), it is possible to observe that the reported prevalence is worrisome in University students.

However, mental health promotion activities involve the creation of individual and social conditions that allow optimal psychological and psychophysiological development (Leiva et al., 2015). This is why it is imperative to reinforce behaviours that protect mental health such as adaptive coping (focused on the problem), exercise habits, adequate nutrition, healthy interpersonal relationships, self-control techniques and prevention on high-risk issues, such as the use of psychoactive substances, anxiety, depression and suicide (Garzón, 2019).

The foregoing makes sense in the context where this study is carried out, the state universities. Historically, these have had the challenge of guaranteeing the inclusion of young students of all kinds and conditions, which grants the richness of the coexistence of different worlds and interpretations of life, a space that leads to challenging oneself in the search for one's own meaning in a space where everyone tries to find the same thing. The state university collects a significant number of young people who try to progress in the social scale through education, which sometimes places them in conditions of lack and need, a risk factor for frustration or failure when they fail to meet social standards demanded.

For this reason, it is important to evaluate the mental health of young university students because it allows the collection of relevant information for the creation of psychological well-being programs as a protective factor of psychic life and quality of life (Dörner et al., 2019).

In recent years, research on quality of life has expanded its areas of focus, including measuring subjective well-being as an important part of people's assessment of their current situation (Denegri et al., 2018).

Due to these characteristics, we present a model composed of six domains and a series of related subdomains that could characterize the SMP of individuals, whether they are healthy or with some mental illness (Muñoz, Restrepo and Cardona, 2016):

- Attitudes towards yourself. It refers to the importance of self-perception and the self-concept that is produced with daily action. It is composed of subdomains: accessibility of the self to the consciousness, concordance of the real self with the ideal self, self-esteem and sense of identity.

- Growth and self-actualization. This concept speaks of the life meaning and whether one acts in coherence with it. It includes the subdomains of self-actualization as a motivational force for the human potentialities development and involvement in life, as the push to participate in the development and care of one's life and to others.

- Integration. It refers to the ability to include in life all those experiences that happen, both positive and negative; as well as the ability to accept in integrity. It depends on the individual's psychic balance, personal philosophy and resistance to confront stress.

- Autonomy. It shows how the individual establishes relationships with the world that surrounds him and his fellows, and how decisions include other people, is synonymous with independence and self-determination.

- Reality perception. This criterion implies the capacity to adequately perceive reality, to give an account for circumstances in an objective manner, avoiding judgments as much as possible and the capacity to develop empathy towards the experiences of others.

- Environmental domain. This aspect is linked to two fundamental themes such as success (which emphasizes achievement and achieving results) and adaptation (which refers to the process of reaching the goal).

In this sense, the objective of the study was to determine the level of mental health of first-year students of a State University in southern Chile.

In this sense, the objective of the study was to identify the needs of university students in mental health matters at a Chilean state University.

2. Materials and methods

The study is framed within the quantitative paradigm, being the research design of descriptive-correlational type. The research sample is composed of 533 cases, 286 men, 247 women. Average age = 20.65 years and $Dt = 3.84$. The sampling is incidental type and corresponds to first year entry students to higher

education, who are enrolled in the year 2019 and have taken the pertinent classes to their academic year.

The instrument used was the mental health questionnaire used by the Council of State Chilean Universities of Chile, CUECH. The instrument corresponds to a Likert scale. The dimensions of the scale are:

1. Emotional State: It considers aspects such as mood, affectivity, emotion and feelings, which can be expressed positively or negatively by the subjects.
2. Interpersonal Relations: it focuses on identifying the form and quality of the contact that the subject establishes with other people.
3. Cognition and Thought: includes aspects such as memory, attention, concentration, flow of thought and ideation, which can be altered in relation to a decrease as well as in its acceleration.
4. Conduct and Behaviour: evaluates aspects related to sleep, consumption, sexuality, and impulses.
5. Physical Symptomatology: the items that integrate this dimension represent physical manifestations of pain or discomfort, such as tachycardia, muscular tension, among others.

Once the information was collected, a database was created in SPSS. The ethical safeguards protecting the subject of study and the researchers are based on the principles proposed by the Council for International Organizations of Medical Sciences (CIOMS, 2002). As indicated in Helsinki Declaration in relation to scientific research in human beings. The principles proposed by Ezekiel Emanuel to help evaluate the research ethics proposals involving human beings.

3. Results

As shown in table 1 a 36.2% of the students surveyed present a low or medium level of mental health. This indicates that there is a high percentage of university students participating in the study who are at risk for mental health problems.

Table 1. Mental Health Levels in students

	Mental health			Total
	High	Low	Average	
Men	0. 90%	38. 50%	14. 30%	53. 70%
Women	0. 60%	25. 30%	20. 50%	46. 30%
Total	1. 50%	63. 80%	34. 70%	100. 00%

As shown in table 2 there are statistically significant differences between the averages of men and women in the total score of the scale and in the dimensions a.-conduct and behaviour and b.-physical symptomatology. Which indicates that the women surveyed on average have higher scores on the indicated dimensions, tending to require more frequent support to address mental health needs.

Table 2. Average performance of men and women in each subscale of the test

	Gender	N	Average	Standard deviation	p-value
Total Score	Men	286	11.8	6.17	0
	Woman	247	14	6.286	
Emotional State Score	Men	286	2.71	1.686	0.124
	Woman	247	2.94	1.694	
Interpersonal Relations Score	Men	286	1.65	1.244	0.213
	Woman	247	1.79	1.341	
Cognition and Thought Score	Men	286	2.92	1.769	0.102
	Woman	247	3.16	1.566	
Conduct and Behaviour Score	Men	286	2.41	1.726	0.008
	Woman	247	2.79	1.636	
Physical Symptomatology Score	Men	286	2.1	1.797	0
	Woman	247	3.32	2.028	

As can be seen in table 3 the architecture area has the highest percentage of need for mental health care, 45.6% of which is of medium and high need. Followed by education and health students with 38.8% and 38.1% of medium and high mental health care needs.

Table 3. Percentages de Mental Health Needs by Knowledge Area

Mental Health			
	High	Medium	Low
Engineering	0.80%	27.10%	72.10%
Architecture	3.20%	42.40%	54.40%
Health	1.60%	36.50%	61.90%
Education	0.00%	38.80%	61.20%
Social Sciences	1.50%	34.30%	64.20%
Social Sciences	1.60%	35.30%	63.00%

Table 4 shows that there are significant statistically differences in the physical symptomatology dimension, where architecture students report greater physical symptoms that are linked to mental health problems, followed by health and education students.

Regarding total score, it is observed that there are statistically significant differences between the participants, once again leading the needs for mental health support the students of architecture and health areas.

Table 4. Comparison of means in the dimensions of mental health by area of knowledge in university students

		Average	Standard deviation	valor p
Emotional State	Engineering	2.74	1.63	0.282
	Architecture	3.12	1.79	
	Health	2.9	1.59	
	Education	2.55	1.65	
	Social Sciences	2.87	1.87	

Interpersonal Relations	Engineering	1.7	1.34	0.559
	Architecture	1.77	1.34	
	Health	1.76	1.3	
	Education	1.55	1.24	
	Social Sciences	1.48	1.09	
Cognition and Thought	Engineering	2.72	1.71	0.108
	Architecture	3.26	1.65	
	Health	3.17	1.77	
	Education	3.16	1.69	
	Social Sciences	3.07	1.51	
Conduct and Behaviour	Engineering	2.4	1.67	0.213
	Architecture	2.88	1.8	
	Health	2.46	1.63	
	Education	2.61	1.59	
	Social Sciences	2.64	1.57	
Physical Symptomatology	Engineering	2.12	1.72	0.001
	Architecture	3.14	2.13	
	Health	2.97	2.11	
	Education	2.78	2.1	
	Social Sciences	2.64	1.79	
Total	Engineering	11.67	6.1	0.038
	Architecture	14.17	6.66	
	Health	13.27	6.62	
	Education	12.65	6.52	
	Social Sciences	12.7	5.62	

In table 5 It is observed that there are adequate to moderate and high correlations between the dimensions of the scale and the total score. The role that the Emotional State would play stands out in the significant relationships,

because it relates positively and in a moderate and highway with the dimensions and the total score.

Table 5. Correlations between mental health scale, age and total score dimensions

	Age	Emotional State	Interpersonal Relations	Cognition and Thought	Conduct and Behaviour	Physical Symptomatology	Total score
Age	1	-0.088*	0.024	-0.031	-0.052	-0.018	-0.047
Emotional State		1	0.455**	0.505**	0.502**	0.556**	0.805**
Interpersonal Relations			1	0.277**	0.316**	0.338**	0.591**
Cognition and Thought				1	0.472**	0.480**	0.736**
Conduct and Behaviour					1	0.596**	0.780**
Physical Symptomatology						1	0.821**
Total score							1

*. The correlation is significant at level 0.05 (bilateral).

**.. The correlation is significant at level 0.01 (bilateral).

3. Discussion

The results obtained are congruent with the findings collected in foreign and Chilean Universities, and that show consistently high incidences in University students for various mental health episodes. Among them, anxiety disorders have a rate close to 15%, being more frequent in women (19.5%) than men (8%) (Micin and Bagladi, 2011).

Findings on mental health suggest a high incidence of mental disorders in the Chilean population. The Chilean study of psychiatric incidence (Vicente et al., 2002), indicates that over one third of Chileans have presented a mental disorder throughout life (36% incidence-life for psychiatric disorders), finding higher incidences for anxiety disorders (16.2%), affective disorders (15%) and the substance use group (14.4%). The population between 15 and 24 years old

was identified with rates close to the total population for affective disorders (13.86%), anxiety (11.3%) and schizophrenic (2.18%); but higher rates for alcohol-drug use (15.31%) and antisocial disorders (1.45%).

These antecedents suggest a more worrying diagnosis for Chilean University students. As Florenzano (2006) points out, mental health acquires greater relevance in a mass education system that incorporates a great diversity of students, a phenomenon already observed in the Anglo-Saxon world and that generated in-depth studies and the creation of university health systems. However, it is required to progress in the systematic study of university populations at a national level in order to understand the psychological difficulties they face. By 2004, there were an estimated 270,915 university students with psychopathological disorders, constituting an important public health problem at a national level (Florenzano, 2006). Numerous studies suggest high rates and not different from those found in foreign university students or those reported in the national population for the equivalent age group, in addition to gender divergences.

The high incidence of psychopathology in the university population would endorse the vision that mental health problems in university students, nationally and globally, constitute a current relevance problem. According to Micin and Bagladi (2011):

1. Adaptive disorders correspond to the highest prevalence found in this group of subjects, a figure that considers half of the population studied. Global research indicates that depressive and anxious reagents in university students exceed the rates of the general population and their corresponding age group, which is confirmed in this study. These incidences also exceed those surpass in Chilean universities.

2. For its part, specific anxiety disorders also presented high rates in the population studied, being higher than those found for the equivalent age group, the general national population and for other University studies, in which women were most frequently reported (Except obsessive compulsive disorder and social phobia, whose rates are similar).

The results obtained for population consultant to the university health service indicate consistently high incidences with findings in foreign and national university populations. Significant rates were found for adaptive, mood, anxiety, personality and eating disorders and a history of suicidal behaviour. It is worth noting that a high percentage of the population consultant presents clinical alterations linked to anxiety and depression. Significant gender differences were found in favour of men for psychotic disorders, anxiety disorders, obsessive-

compulsive disorder, substance-related disorders in general and with cannabis; and for schizoid, narcissistic and obsessive-compulsive personality disorders. A higher incidence was found in women for mixed adaptive disorders, somatomorphs, eating disorders and borderline and histrionic personality disorders. Finally, significant associations were found between the presence of clinical symptomatology and gender.

An important finding of the present study is that the highest incidence of clinical episodes corresponds to adaptive disorders. We know that the characteristics of a given context are combined with the individual characteristics of a young person, to predispose or facilitate risky behaviours or mental health episodes. Thus, it is essential to attend to the quality of social contexts and the role they play in modulating, preventing or reducing risk behaviours, as well as in facilitating health or illness emergencies. The fact that half of the population consultant had some adaptive disorder suggests that clinical symptoms appeared as a reaction to identifiable environmental stressors. In this sense, this university context could be playing a role in the generation of symptomatology of its students, as well as offering possibilities of preventive intervention.

The relevance of this type of studies lies in the evolutionary stage that students go through, which includes managing greater autonomy, assuming academic responsibilities, responding to personal and family expectations, developing their sexuality and couple relationships and their personal identity, all of which require self-management and self-regulation (López, Kuhne, Pérez Gallero and Matus, 2010). In addition, they present psychosocial stressors such as estrangement from the family, dependence and/or economic difficulties, academic demands, future uncertainty, and the need to adapt to a new vital context.

These findings reveal the need to implement interventions oriented at the mental health of university students in our national context and, at the same time, can be conceived as a starting point to design strategies aimed at promoting and improving psychological well-being. Intervention on the above mentioned dimensions could positively influence the prevention of depressive symptomatology in university students (Rossi et al., 2019).

In relation to psychological well-being dimensions, there are three that could have a protective effect facing depressive symptomatology. Within them, autonomy and positive relations with others, associated with men and women, respectively, show concordance with other studies (Li et al., 2015).

4. Conclusions and recommendations

The results obtained constitute an opportunity to design a social university context that allows to prevent or to reduce risk behaviors, favoring greater health environments in these young people. Within this framework, programmes intended at mental health prevention become relevant, as well as the incorporation of therapies intended to more adaptive disorders for this age group (focal therapies, brief therapies and crisis interventions).

The theoretical and empirical evidence suggests that both, life cycle characteristics and the university life demands, make the emergence of adaptive episodes expected as a symptomatic sign of transit to adulthood. Adaptive disorders are characterized by the development of clinically significant emotional or behavioral symptoms in response to an identifiable psychosocial stressor, such as family or couple conflicts, city changes, interpersonal conflicts, among others.

Many of these stressors are associated to teenage tasks, but also entry to university education brings particular demands and challenges. For many young people, the transition through university is a complex experience, in which a variety of skills and abilities are put into play in order to achieve career goals. Students face diverse stressors such as responding to greater academic demands, changes in the social support network, greater autonomy and protagonism demands, vocational or academic failure, uprooting and living alone if they come from province, etc., all factors that could increase the risk of generating clinical symptoms.

These results suggest diverse alternatives regarding the approach of strategies oriented to the promotion and prevention of mental health, with emphasis on generating psychoeducational instances regarding what psychotherapy really is and the benefits it provides. It results relevant, since expanding the information and/or knowledge regarding its utilities, probably the expectations regarding a psychotherapeutic process could be more certain and arouse less negative cultural beliefs regarding psychotherapy, which, finally, could favor and/or increase the search for psychotherapeutic help, the indexes of mental health and quality of life of the general population (Salinas et al., 2018).

As a projection of our study, a relevant aspect of research would be to explore student's level of awareness regarding their mental health problems and attitudes towards seeking specialized help. This, since we can infer that an important percentage of students with mood disorders, consumption of substances or other mental health problems, does not ask for help, or consult very late when they suffer episodes of greater gravity and significant part of its academic and social functioning has been reduced. Conceive also studies on mental health including the prevention of moral anguish, promoting subjective

well-being as a result of a rectitude in moral behavior, since immoral behaviors are negatively related to mental disorders (France, s. F).

Finally, we believe that if psychoeducational, orientation, health promotion and prevention aspects are considered in future interventions, in an environment that provides shelter and opportunity to this specific group of people at risk, these strategies could have a greater impact (Baader et al., 2014). In addition, one of the implicit roles of universities would be fulfilled, promoting the psychological well-being of their community (Véliz and Dörner, 2019).

Under this logic, it results relevant the participation of the different stratum in the generation of health and welfare policy and that their actions are installed in the medium and long term in a progressive manner in all the organization through an integral plan for healthy life (Dörner, Pereira and Arriagada, 2019).

REFERENCES

- Baader, T., Rojas, C., Molina, J.L., Gotelli, M., Alamo, C., Fierro, C., et al. (2014). Diagnóstico de la prevalencia de trastornos de la salud mental en estudiantes universitarios y los factores de riesgo emocionales asociados. *Revista chilena de neuro-psiquiatría*, 52, 167-176.
- Bauman, Z. (2005). *Modernidad y ambivalencia*. Barcelona: ed. Anthropos.
- Barrera-Herrera, Ana, Vinet, E. (2017). Adulthood Emergent and cultural characteristics of the stage in Chilean university students. *Terapia psicológica*, 35, 47-56.
- Barrera-Herrera, A., Neira-Cofré, M.J., Raipán-Gómez, P., Riquelme-Lobos, P., Escobar, B. (2019). Apoyo social percibido y factores sociodemográficos en relación con los síntomas de ansiedad, depresión y estrés en universitarios chilenos. *Revista de Psicopatología y Psicología Clínica*, 24, 105-115.
- CIOMS (Council for International Organizations of Medical Sciences). (2002). *International ethical guidelines for biomedical research involving human subjects*. Geneva: WHO. Guideline 7.
- Denegri, M., González-Rivera, N., Elgueta-Sepúlveda, H., García-Jara, C., Sepúlveda, J.A., Schnettler, B., et al. (2018). Life Satisfaction in Chilean University Students: An Examination of the Relation between Gender and Socioeconomic Level. *CES Psicología*, 11, 40-55.
- Dörner, A., Pereira-Berrios, R., Arriagada-Arriagada, A. (2019). Hacia un modelo de universidad saludable: las posibilidades de implementación en una universidad estatal chilena. *Comunidad y Salud*, Vol 17, 60-64.

- Estay-Sepúlveda, JG., Crespo, J., Lagomarsino, M., Peña-Testa, C. (2018). Salud mental y la sociedad abierta en la realidad actual: entre la Utopía de la Cordura y la Praxis de la Locura. *Revista utopía y Praxis Latinoamericana*, 23, 42-49.
- Estay-Sepúlveda, JG., Lagomarsino, M., Mansilla-Sepúlveda, J., Moreno-Leiva, G., Peña-Testa, C., Cruz-Vadillo, R. (2019). Salud de los trabajadores en el mundo neoliberal: una quimera macabra y cínica para el desarrollo de la democracia y una sociedad abierta. *Revista Salud de los Trabajadores*, 27, 85-91.
- Florenzano, R. (2006). Salud mental y características de personalidad de los estudiantes universitarios en Chile. *Revista Calidad de la Educación*, 23, 103-114.
- Francia, VH. (2019) Introducing the Emotive Moral Competence Index (EMCI): A New Measurement of Moral Judgment. *Iranian Journal of Psychiatry and Behavioral Sciences*, 13(4).
- Garzón, V. (2019). Title of Thesis. Factores de riesgo y protección asociados a la salud mental de los estudiantes universitarios. Licenciature of Psychology. Universidad de San Buenaventura, Medellín, Colombia.
- Lagomarsino, M., Moraga, L., Cabezas, C., Estay-Sepúlveda, JG. (2018). Salud, Malestar y Padecimiento: La Sociedad de lo Peor. La democracia y la Sociedad Abierta en peligro. *Revista utopía y Praxis Latinoamericana*, 23, 68-84.
- Leiva, L., George, M., Squicciarini, AM., Simonsohn, A., Guzmán, J. (2015). Intervención preventiva de salud mental escolar en adolescentes: desafíos para un programa público en comunidades educativas. *Universitas Psychologica*, 14, 1285-1298.
- Li, RH., Kao, CM., Wu, YY. (2015). Gender differences in psychological well-being: Tests of factorial invariance. *Qual Life Res*, 24, 2577-81.
- López, M., Kuhne, W., Pérez, P., Gallero, P., Matus, O. (2010). Características de Consultantes y Proceso Terapéutico de Universitarios en un Servicio de Psicoterapia. *Revista Iberoamericana de Psicología. Ciencia y Tecnología*, 3, 99-107
- Micin, S., Bagladi, V. (2011). Salud Mental en Estudiantes Universitarios: Incidencia de Psicopatología y Antecedentes de Conducta Suicida en Población que Acude a un Servicio de Salud Estudiantil. *Terapia psicológica*, 29, 53-64.
- Moyano-Díaz, E. (2017). Afrontamiento, salud mental y felicidad bajo huelga y ocupación universitaria. *Arquivos Brasileiros de Psicologia*, 69, 153-167.
- Muñoz, C., Restrepo, D., Cardona, D. (2016). Construcción del concepto de salud mental positiva. Revisión sistemática. *Rev Panam Salud Publica*, 39, 166-73.

- Pillado, CE & Almagiá, EB. (2019). Autoeficacia, apoyo social y bienestar psicológico en estudiantes universitarios asmáticos. *Revista de Psicología*, 14, 141-147.
- Rossi, JL., Jiménez, JP., Barros, P., Assar, R., Jaramillo, K, Herrera., et.al. (2019). sintomatología depresiva y bienestar psicológico en estudiantes universitarios chilenos. *Revista médica de Chile*, 147, 579-588.
- Salinas-Oñate, N., Baeza-Rivera, MJ., Escobar, B., Coloma, J., Carreño, M. (2018). Predictores culturales y psicológicos de la búsqueda de ayuda psicológica en estudiantes universitarios. *Cultura-hombre-sociedad*, 28, 79-101.
- Soto-Salcedo, A., Andrade, M., Véliz, A., Estay-Sepúlveda, JG., Peña-Testa, C. (2019). El valor de la ética en profesionales del nuevo milenio: Construyendo una sociedad abierta. *Revista Opción*, 89, 686-705.
- Véliz-Burgos, A., Dörner-Paris, A. (2019). Reflexiones respecto al bienestar psicológico y salud mental en estudiantes de primer año de una Universidad Estatal. *Revista Ciencias de la Documentación*, 5, 63-71.
- Véliz-Burgos, A., Dörner, A., Soto, A., Reyes, JL., Ganga, F. (2018). Inteligencia emocional y bienestar psicológico en profesionales de enfermería del sur de Chile. *Medisur*, 16, 259-26.
- Vicente, B., Rioseco, P., Saldivia, S., Kohn, R., Torres, S. (2002). Estudio chileno de prevalencia de patología psiquiátrica (DSM-III-R/CIDI) (ECP). *Revista Médica de Chile*, 130, 527-536.
- Vilchez-Cornejo, J., Quiñones-Laveriano, D., Failoc-Rojas, V., Acevedo-Villar, T., Larico-Calla, G., Mucching-Toscano, S., et.al. (2016). Salud mental y calidad de sueño en estudiantes de ocho facultades de medicina humana del Perú. *Revista chilena de neuro-psiquiatría*, 54, 272-281.

**APPLIED ASPECT OF CORPORATE SOCIAL
RESPONSIBILITY IMPACT ON COMPANY
COMPETITIVENESS (UNILEVER EXAMPLE)**

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Abstract

In the article the essence and importance of corporate social responsibility development at enterprises (on the example of the Dutch-British company, which is one of the world leaders in the market of foods and household chemicals) are considered. Article proves that the development of corporate social responsibility influences business success, contributes to improving the image of a company in the community and enhancing its efficiency and competitiveness in the market. This article describes the Unilever background; external conditions which made the Unilever Sustainable Living Plan (USLP) possible and reasonable; best company's efforts during USLP implementation addressing a few targets simultaneously; effectiveness of the USLP strategy from the standpoint of its main stakeholders; and finally an analysis of the three strategic choices and recommendations and conclusions.

Keywords: corporate social responsibility, stakeholders, development, competitiveness, strategy.

JEL Codes: L14, L15, L21, L26, M14

1. Introduction

Large companies employ hundreds of thousands of people around the world and millions in their supply industries. Some companies' revenue over a year is higher than many countries' GDP. Such gigantic systems are comprehensive and conduct numerous activities that go far beyond producing, marketing, sales, etc. Such companies impress with its influence on employees, local communities and even countries. Many large companies call themselves responsible, socially-oriented business representatives who care not only about

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their own interests but also about the welfare of the population. Such orientation of their business is called the abbreviation CSR (Corporate Social Responsibility).

CSR programs focus on the idea that business can make the world a better place. But these projects sometimes cause controversy on the part of scientists, business and the public. Researcher Toledano found that the process of the construction of the organization's social strategy is very similar to that of the construction of a commercial brand and that the goal was not social change or improvement of the organization's social and environmental performances but improvement of the organizational image (Rozenal, 2019).

However, it is normal when companies have a commercial mission. Moreover, good corporate citizenship can bring mutual benefits for businesses and society.

By practicing corporate social responsibility, companies can be conscious of the kind of impact they are having on all aspects of society, including economic, social, and environmental. Once a company has strong influence on environment, it has to undertake responsibility for its outcomes. Instead of taking responsibility as an obligation, Unilever for example used it for final company transformation into a transnational organization. 'Doing good by doing well' has become a foundation for improving competitive advantages.

2. Unilever's background

It established in 1870 and 1880 as 2 separate domestic companies that produced different products, margarine and soap. Years later, those two companies became multinational expanding abroad into each other's niches. Instead of running aggressive competition, companies' owners agreed on merging and in 1927 and a new multinational company Unilever was created. Following decades Unilever was growing as high customer responsive company with diversified products portfolio and independent overseas operating companies.

However, new opportunities and market conditions of pre-70s revealed the way Unilever ran the business costly. First steps to centralization were made by creating Product groups aimed at balancing global and regional efficiency with responsiveness to local markets. During the next decades, the company was reorganized a few times mainly to seize new technological and trade opportunities, which enabled the effective way of centralizing the multinational company. Table 1 describes stages Unilever passed from the two domestic companies to a transnational organization.

Table 1. Unilever's development stages

Stages	Key events and activities	Environment characteristics and opportunities	Organisational structure
From Establishing to International (1870-1916)	<ul style="list-style-type: none"> - Establishing of separate companies. - Product and supply chain development. - Exporting 	<ul style="list-style-type: none"> - Unsatisfied demand. - Market pioneering advantages. 	Coordinated Federation
International to Multinational (1916-1926)	<ul style="list-style-type: none"> - Expanding abroad into one another's niches by building factories in England and Dutch. - Improving the supply chain through a strategic partnership with palm oil producers in Africa. - Product differentiation 	<ul style="list-style-type: none"> - Other countries market pioneering. - Reliability of a supply chain. - Low products' durability. - High transportation costs. - Trade barriers. 	Decentralised Federation
Multinational (1927-1940)	<ul style="list-style-type: none"> - Creating Unilever by merging. - Acquisition and building of new factories in Europe. - Product differentiation 	<ul style="list-style-type: none"> - Market expanding. - Still, low products' durability and high transportation costs. 	Decentralised Federation
Multinational (1940-1965)	<ul style="list-style-type: none"> - Localisation strategy (replacing managers with local). - Diversification through acquisition. - Opening of R&D centres. - Marketing activity 	<ul style="list-style-type: none"> - Communication and logistics difficulties because of WWII. - Possibilities of post-war markets. 	Decentralised Federation
Multinational-to-Transnational (1966- late 80s)	<ul style="list-style-type: none"> - First centralisation steps by creating Product groups. - Distribution and leveraging operational activity of some products between different local entities. - Brand development. 	<ul style="list-style-type: none"> - Falling trade barriers. - Logistics and telecommunication innovations. - Industries were becoming consumer-driven. - The increasing role of marketing. - Changing of sales channels (rising of food retailers). 	Decentralised Federation to Integrated Network

Transnational (90s-2008)	<ul style="list-style-type: none"> - Opening Four Acres, an international management training college and local training centres. - Positions transfer. - Establish an annual senior manager's conference. - Centralising of R&D and financial activity. - Expanding on Asia and Post-Soviet countries' markets. 	<ul style="list-style-type: none"> - Opening of new markets. - Continuing of trade liberation. - Improvement of tele-communication technologies and logistics. - Fast-changing consumers' tastes. 	Integrated Network
In process			
Transnational (2009- Nowadays)	<ul style="list-style-type: none"> - Running USLP strategy. 	<ul style="list-style-type: none"> - Environmental problems are becoming notable. - High and continuously increasing society, governmental and organisation pressure concerning causes of environmental problems, quality of products (especially food and chemicals containing), fair working conditions etc. 	Extended Integrated Network

Source: Compiled by authors

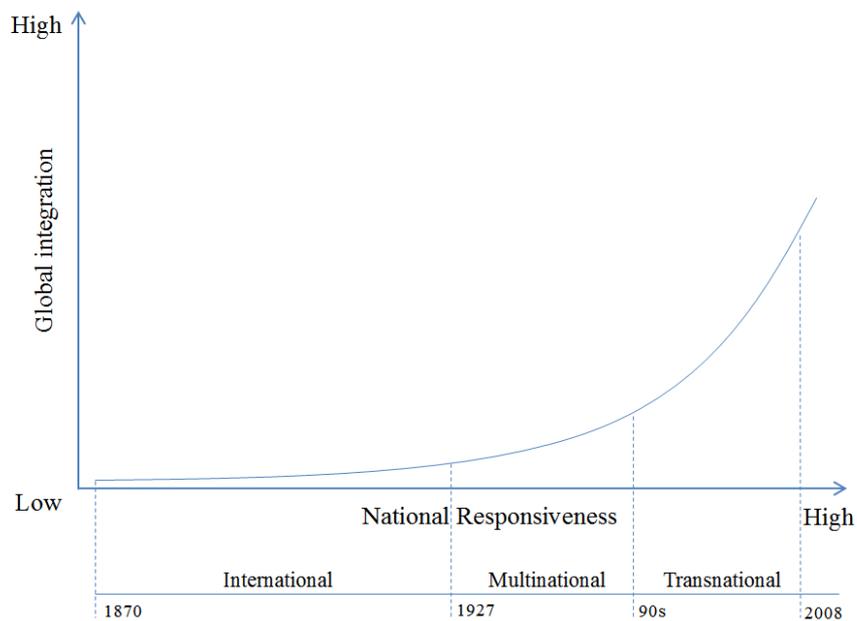
Unilever pathway is presented graphically on a figure 1. It is necessary to admit that transformation process takes decades and even after long changes, companies are not clearly transnational or multinational, but combine best sides of any when it has a practical sense.

3. External condition and USLP objectives

Unilever was growing in the first decade of the XXI century, however, with lower profitability and finally, it lost the leadership to P&G in 2008. A year later, Paul Polman became a new company's CEO. Polman announced to double the company size and launched the Unilever Sustainable Living Plan (USLP). As of 2008, Unilever had 174,000 employees (Statista, 2019), nearly 400 brands

(Kissinger, 2017), approximately 4 million people in its supply industries and plans to double company's size (Bartlett, Beamish, 2018). Already a large organization built during a century was going to double in a decade. Such an ambitious aim required serious capabilities growth and marketing efforts.

Figure 1. Unilever evolving



Many doubted how Unilever could state such an ambitious target while its main efforts were planned to be delivered on solving environmental and social problems which probably would benefit the company but in a long term perspective and no one knew to which extent. However, Unilever's 'Doing good by doing well' has become vital as never before.

Market conditions are changing over the years. Cheap resources and raw materials were the sources of competitive advantages in the pre70s. Next two decades became a time of leveraging of cheap resources and capabilities on a global scale. Further 90s/00s years were marked with improving the created systems, extreme product innovations and global competition for knowledge, skills, talents and creativity.

Now, the world has hundreds of immense companies with hundreds of thousands of employees, millions of people in its supply chain and influence even on countries.

However, the bigger system is, the more efforts are needed just to maintain the system. Moreover, decades of the furious race for global leadership and playing ‘global chess’ have caused serious global environmental problems (UN, 2018). Furthermore, developing countries have not benefited to the same extent as developed, and many workers receive low wages (ILO, 2019). From the other side, NGOs, governments and society have begun to pay more attention to the way MNEs run the business and their outcomes.

Therefore, this and further decades are to become a time of consolidating and securing of achievements of the constrained competition of previous decades. It is a time of making the long growing business sustainable. USLP strategy is probably a very well-timed and well-designed reaction to the new global conditions.

When the most visible side of USLP has been related by many with CSR and creating a good company's reputation, in fact, USLP provided a way of serious redesigning of the company by a transformation of its process physiology and cultural psychology. From this stand, USLP has become the last step of redesigning the company into transnational after almost four decades of redistributing assets and responsibilities.

Furthermore, USLP is a great example of a strategy that effectively addresses a single effort to eliminate the external threats, undertake the opportunities, tackle with the internal weaknesses and improve the existing strengths simultaneously transforming the company. Table 2 presents a modified SWOT-analysis (Kissinger, 2017a) to describe the steps Unilever carried out ‘doing good by doing well’.

4. The effectiveness of the USLP strategy

Table 2 describes some of the actions undertaken during USLP implementation in correspondences with the company’s SWOT. However, the whole comprehensive outcomes are more intangible and have to be discussed precisely (see table 3) from the standpoint of main stakeholders to understand how solving environmental and social problems could raise market price from \$19 to \$57 (Yahoo, 2020) and capitalisation from \$67B to \$150B (YCharts, 2020) in a decade.

Table 2. USLP main achievements towards Unilever’ SWOT

		Strengths		Weaknesses	
		Economy of scale and well-leveraged operations	Strong brands	Lack of direct connection with customers	Taking control over the company
An increasing number of environmentally conscious consumers	Opportunities	Running training for 6,000 marketing employees to improve brand positioning based on USLP principles.	Conducting forums, interviews, meetings to describe the USLP idea.		- Establishing 'pillars' to control the USLP implementation and improve cooperation between organisation parts.
		Establishing UJE which combined marketing functions, communication and sustainability responsibilities.			
Capturing developing markets		Running seminars to improve the marketers understanding of customers' needs to create a better brand-customer linkage.	Improving products characteristics to respond to the local customers' problems (water scarcity and pollution, etc.)		Cost-cutting of tomatoes suppliers by investing in programs of grip irrigation.
					Revealing resource and cost-cutting by reducing fat, salt and sugar content in existing products.
Increasing pressure on environmental and social problems	Threats		Health and hygiene programs for 2.5 million people. Toilet Coalition to develop toilet facilities for 2.5 million people.		- Individual and in-partnership activity to improve the lives of a million smallholder farmers within the supply chain and outside. - Integrating suppliers inventory monitoring systems with Unilever. - Creating 'innovating eco-system' program to link academics, small and medium enterprises.
					Monitoring operation through identifying sources of GHG, water and wastes throughout the entire product lifecycle. Metrics development.
High level of competition			- Commitment to lead worldwide campaigns against deforestation with 170 governments, companies and NGOs. - Leading role and partnership with global NGOs.		Increasing suppliers reliability by pushing them to follow fair employee treatment.
			As the Unilever became a pioneer of sustainability, other companies would not improve their reputation to the same extent with the same result. High Unilever's standards undermine other companies' competitive positions.		From 'Persil washes whiter' to 'Dirt is good' as linkage from problem to possibility.

Source: Compiled by authors

Table 3. USLP analysis in CSR terms

Stakeholder and its relations	Characteristics of relations	Gains
Customers (Transformative)	<ul style="list-style-type: none"> - Brand repositioning (Persil 'Dirt is Good' from 'Persil washes whiter'). - Improving responsiveness. Innovating towards current customers problems (dry shampoo towards water scarcity). - Improving nutrilon and lowering salt, sugar and fat content. 	<ul style="list-style-type: none"> - High quality of food, personal and home care products is vital and directly influence the demand. - Innovating products in direct responding to customers' problems like water scarcity improve product characteristics and create positive brand positioning. - Reducing costs lowers the price, which is essential as the rivalry is intense.
Employees (Responsive)	<ul style="list-style-type: none"> - Commitment to drive fairness (a new pillar) in the workplace (women empowering, inclusiveness). - Devised a five-year strategy on human rights. - Agile Working program. - Improving coordination and flexibility. 	<ul style="list-style-type: none"> - Active CSR position increases employee motivation and therefore, productivity (Kim, Scullion, 2013). - Project Shakti employed 65,000 women and brought \$100 million in sales as of 2012 (Rangan, Chase and Karim, 2015). - Well-coordinated organisations have faster decision making and better executing. Also, such companies are more customer responsiveness (Bhatti, Qureshi, 2007). - Retaining employees for a long period lowers cost and improve productivity due to learning curve (Spence, 1981).
Investors (Transactional)	<ul style="list-style-type: none"> - Ensuring profitability. - Maximising share value from a long term perspective. - Redesigning company to respond to current and future conditions. 	<p>The large business works in a long term perspective. Keeping stable profitability and growth lowers financial risks from shareholders.</p>
Suppliers (Transformative)	<ul style="list-style-type: none"> - Suppliers certifying (quality ensuring). 	<ul style="list-style-type: none"> - Strategic partnership and information sharing improve supply chain, operations and

	<ul style="list-style-type: none"> - Investment programs for improving suppliers' operations (e.g. drip irrigation). - 'Innovating eco-system' to develop SME with academics. - Improving informational systems by integrating inventory monitoring systems. 	<p>logistics reliance and responsiveness which results in cost-reducing and increasing quality (Sukati, Hamid, Baharun, Tat, & Said, 2011).</p> <ul style="list-style-type: none"> - Taking control over its suppliers lowers social risks and improves the company's reputation.
Communities (Transformative)	<ul style="list-style-type: none"> - Hygiene and safe water drinking programs targeting millions of people in developing countries (target market). - Program Shakti. 	Active CSR measures delivered to local communities increase demand by building positive brand positioning and strong customer loyalty (Torres et al., 2012).
Governments (Transformative)	<ul style="list-style-type: none"> - Leading UN initiatives. - Collective initiatives in handwashing, sanitation, safe drinking water. - Developing GHG, water, and electricity usage and reducing it. 	<ul style="list-style-type: none"> - Taking a proactive position with governments by leading the environmental and social initiatives lowers the political risks and helps to avoid penalty and reputation loses. - Reducing GHG, water usage etc. lower costs.

Source: Compiled by authors

Efforts towards partnership also had practical aspects. Although Unilever had been recognized as a highly responsible company, its wages in Vietnam factories were even lower than the international poverty level. When some companies are under pressure for years (The Journal, 2019), good partnership and transparent relations with Oxfam resulted in naming Unilever 'the most transparent and forward thinking example' after Vietnam fabrics audit report (Oxfam, 2016).

CSR based programs are still under discussion. Rangan, Chase and Karim (2015) reveal that only 13% of them were comprehensive and aiming at the business-model transformation. 39% were focused on operational improvements. However, such programs brought notable positive outcome while more narrow programs mainly aimed at philanthropy required more costs than brought gains. Unilever has implemented sustainability through its whole organisational structure, and after years its results are proven with the market price and capitalization.

5. Strategic choices analysis and recommendations

USLP strategy faced much criticism, and much more efforts and adjustments were undertaken towards its aims. After five years of implementation, there still was no clear understanding of its future. Table 4 presents an analysis of three strategic choices.

Table 4. Strategic choices analysis

	Expand USLP practice companywide	Step back	Building external partnership
Implementation tasks	<ul style="list-style-type: none"> - to develop new metrics; - to design new workers' motivation system based on 'sustainability metrics' rather than financial; - to continue USLP implementation. 	<ul style="list-style-type: none"> - developing new strategy / returning to the previous strategy; - implementation / executing; 	<ul style="list-style-type: none"> - sharing experience with NGOs, governments, other companies; - efforts associating toward USLP aims.
Benefit	<ul style="list-style-type: none"> - ability to assess the USLP results; - better understanding for employees about USLP targets; - achieving of 'halving footprint' target can reduce costs (e.g. refusal from plastic packaging); 	<ul style="list-style-type: none"> - releasing money from USLP programs. 	<ul style="list-style-type: none"> - less expenses; - better networking; - more ways of achieving targets.
Disadvantages	<ul style="list-style-type: none"> - difficulty of developing metrics to assess USLP measures; - a threat of 'shifting company from business to charity organisation'; - continuing of costly strategy with long-term outcomes. 	<ul style="list-style-type: none"> - Misunderstanding from customers, employees and NGOs; - employees' demotivating; - stepping back from its main brand building block; - new expenses on marketing and brands positioning. 	<ul style="list-style-type: none"> - Less efforts - less benefits; - less brand linkage, so less loyalty and demand increasing; - less control over implementation.
Feasibility	8/10	2/10	5/10

Source: Compiled by authors

Step back choice had more questions than answers. Unilever transformation was still in process and stepping back in the middle would

probably bring more disadvantages and uncertainty. Expanding external partnership is 'in-between choice' as it allows reducing the USLP cost distributing its commitments among many organisations. However, the more contributors are, the fewer benefits Unilever would receive. Expanding USLP practice companywide is a logic continuation in terms of finishing company transformation and building company reputation. This choice has less risk, can bring more benefits and provide a more clear and logic way of company development.

6. Conclusion

Unilever had taken the difficult challenge by committing to a highly responsible way of doing business when such a decision was not visible and faced much criticism. Nevertheless analysing of the environment conditions shows that USLP strategy was well-timed. Moreover, its implementation was efficient as single efforts were simultaneously delivered to undermining of increasing threats, catching opportunities, limiting weaknesses and improving strangeness.

As of 2019 financial indicators shows that USLP's long term expectations were reasonable. Unilever has brightened to the world an excellent proof that CSR is not only one of the PR instruments. Except for improving reputation, its implementation has led to reducing costs and risks, improving suppliers' reliance and employees' productivity. USLP became a last step of Unilever's transformation into transnational organisation by changing its process physiology and cultural psychology.

Unilever has achieved two internal and two external aims. First, the company was effectively reorganised and became 'more' transnational. Second, Unilever improved its competitive advantages and almost tripled its market capitalisation in a decade. Third, what is more important for the global community, Unilever has shown real example which proof that 'Doing good by doing well' principle is applicable and reasonable for business. An active company's media position has set new standards for doing business. And fourth, Unilever by trials and errors developed a working business model which might be used by other companies.

REFERENCES

Bartlett, C.A., Beamish, P.W. (2018). *Transnational management: Text and cases in cross-border management*. Cambridge University Press.

- Bhatti, K., Qureshi, T. (2007). Impact of employee participation on job satisfaction, employee commitment and employee productivity. *International review of business research papers*, 3(2), 54-68.
- ILO (2019). Working conditions in a global perspective. [online] Geneva: International Labour Organization. Available at: https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_696174.pdf [Accessed: 06/01/2020].
- Kim, C. H., Scullion, H. (2013). The effect of Corporate Social Responsibility (CSR) on employee motivation: A cross-national study. *Poznan university of economics review*, 13(2).
- Kissinger, D. (2017). Unilever's Marketing Mix (4Ps) Analysis - Panmore Institute. [online] Panmore Institute. Available at: <http://panmore.com/unilever-marketing-mix-4ps-analysis> [Accessed: 06/01/2020].
- Kissinger, D. (2017a). Unilever's SWOT Analysis & Recommendations - Panmore Institute. [online] Panmore Institute. Available at: <http://panmore.com/unilever-swot-analysis-recommendations> [Accessed: 06/01/2020].
- Oxfam (2016). Labour Rights in Vietnam. [online] Oxford: Oxfam GB. Available at: https://www-cdn.oxfam.org/s3fs-public/file_attachments/rr-unilever-vietnam-progress-challenges-040716-en.pdf [Accessed: 06/01/2020].
- Rangan, V., Chase, L., Karim, S. (2015). The Truth About CSR. Harvard Business Review. [online] Available at: <https://www.billsynnotandassociates.com.au/images/stories/documents/oceania.pdf> [Accessed: 06/01/2020].
- Rozental, T. (2019). Philanthropy Of The Business Sector In Israel. *Entrepreneurship*, vol. 7(2), 144-152.
- Spence, A. M. (1981). The learning curve and competition. *The Bell Journal of Economics*, 49-70.
- Statista (2019). Average number of Unilever employees 2007-2018, by region | Statista. [online] Statista. Available at: <https://www.statista.com/statistics/269467/average-number-of-unilever-employees-by-region/> [Accessed 6 Jan. 2020].
- Sukati, I., Hamid, A., Baharun, R., Tat, H., Said, F. (2011). A study of supply chain management practices: An empirical investigation on consumer goods industry in Malaysia. *International Journal of Business and Social Science*, 2(17), 166-176.
- The Journal (2019). Stop buying clothes from brands that use sweatshops. [online] Websterjournal.com. Available at: <http://websterjournal.com/2019/04/03/stop-buying-clothes-from-brands-that-use-sweatshops/> [Accessed: 06/01/2020].

Torres, A., Bijmolt, T., Tribó, J., Verhoef, P. (2012). Generating global brand equity through corporate social responsibility to key stakeholders. *International Journal of Research in Marketing*, 29(1), 13-24.

UN (2018). Annual Report 2018. [online] UN. Available at: <https://www.unenvironment.org/annualreport/2018/index.php> [Accessed: 06/01/2020].

Yahoo (2020). The Unilever Group (UN). [online] Finance.yahoo.com. Available at: <https://finance.yahoo.com/quote/UN/> [Accessed: 06/01/2020].

YCharts (2020). Unilever Market Cap | UL. [online] Ycharts.com. Available at: https://ycharts.com/companies/UL/market_cap [Accessed: 06/01/2020].

EXAMPLES OF THE SOCIAL CONTRIBUTION OF MEGA-COMPANIES IN ISRAEL

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Abstract

The article gives an example of the scope of corporate social responsibility for a large company in Israel. At first the article explains social responsibility in Israel, and then explains how Intel is a large company in the Israeli economy and then details its social activity in Israel. All the details about the social activity in Israel are taken from the company's website.

Keywords: *Corporate Social Responsibility, Israel, Intel, Diversity and Inclusion, Ethical Conduct, Volunteering, Environment Quality, Employment.*

JEL Codes: *A 130*

1. Introduction

Dr. Abu Inbal in her research study “Social Responsibility in Business Organizations” from June 2013 notes that until the end of the 1990s the main social activity in Israel was concentrated in the hands of associations and voluntary organizations and was funded by state funds and one-time donations of business firms and philanthropists (Cohen, 2004).

Towards the end of the 1990s, in Israel two pieces of legislation were enacted that addressed the social performances of Israeli corporations and the encouraged the development of the field (Kreizler, 2005). The first is the updated version of the section of ‘Purpose of the Company’ in the Company Law 1999. In this version, the legislature updated that beyond the activity intended for the creation of profits, business companies are entitled to contribute also to appropriate goals, and this in cases in which the contribution is not in the framework of the business considerations. According to Kreizler (2005), in this section the legislature legally authorized corporate philanthropy and encouraged donations.

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Another step for the encouragement and institutionalization of philanthropy is the amendment to the Securities Regulations enacted in 2001 (Amendments to the Securities Regulations, Periodic and Immediate Reports, Amendment 2001), which determined that the Israeli public corporations need to add to the reports included in their financial statements a description of the extent of their contributions (Kreizler, 2005).

In addition to these legislative changes, at the end of the 1990s the Israeli economy experienced political and social changes that resulted in a significant turning point in the business community's perception of social responsibility. Processes of privatization, liberalization, removal of supervision, and globalization carried with them the news of the release of corporations from the state restraint, the contraction of the welfare state, and the increase of inequality. These processes led to the shift of the attention of the civil society organizations and social activities to the social activity of the business corporations and the increase of the demand to broaden the social obligations they bear and led to the development of a new field of activity organized around the idea of the social responsibility of businesses (Cohen, 2004).

Despite these processes, different researchers who reviewed the development of the field of social responsibility in Israel (Barkai, 2003, 2008; Cohen, 2004; Shamir, 2007) maintain that unlike the way in which the field of social responsibility developed in North America and in Europe, the development of the field of social responsibility in Israel was not the product of social struggles and the public demand to extend their social responsibility developed as a result of organizational isomorphism that is characterized by the adoption of practices of action undertaken by leading organizations (Shamir, 2007). Organizational isomorphism is a concept that belongs to organizational theory that focuses on the environment in which the organization acts so as to explain its actions (Meyer & Scott, 1983). In this context, there are forces that act in the corporations' organizational environment and cause the similarity – isomorphism – between them

DiMaggio and Powel (1983) note three types of forces in the organizational environment: coercion – use of the power of the law; norms – pressures that derive from institutionalized norms in the organizational environment; and imitativeness, expressed in the desire to imitate leading organizations in the market so as to reduce the uncertainty. In the case of Israel, while there was no coercion of the corporations to join the field of social responsibility, the institutionalization of norms regarding the level of social performances expected of corporations and the fact that local emissaries of the multinational corporations

began to participate as active factors in the field of social responsibility in Israel created an organizational environment that encouraged and pushed additional businesses to join the field (Kreizler, 2005). In other words, unlike the process of the development of the field of social responsibility of businesses on the global level, which was in part a response to the struggles referred directly to the market, the growth of the field of social responsibility in Israel reflects first and foremost the influence of the global business culture on the patterns of action of the local business community (Barkai, 2008).

Dr. Abu Inbal in her research study “Social Responsibility in Business Organizations” from June 2013 notes that the recognition of the importance of the social environment in the management of businesses and the outside stresses for social management motivated managers to adopt different patterns of action of social responsibility. The topic of social responsibility developed (Reichel, Gidron, & Gamliel, 2000) from a situation of voluntary contribution to forced social responsibility when the exertion of pressures by interested parties forced desired social actions that came at the expense of the business and in the end became an investment in the future that provides for businesses a competitive advantage and improves the business performance for the long term. With the development of the concept over the years, definitions that address the patterns of action of the business firms also developed.

2. Intel Israel as a Mega-Company in Israel

The Intel Corporation is an American international corporation, one of the most important companies in the field of the design and production of microchips and integrated circuits. In addition, Intel produces network cards, chipset systems for motherboards, software products, and recently also drones and sensors and other devices. Intel has advanced research projects in all aspects of the manufacturing of semiconductors, including MEMS, and more than a few projects in the field of software, such as a compiler for programming languages and a development kit for graphic processing.

Intel employs more than one hundred thousand workers worldwide. Its market value has increased during the year by 50% and has broken the barrier of 240 billion dollars.

Intel Israel has operated in Israel since the Israeli branch of the company was established in the year 1974 by Dov Frohman. Today Intel Israel has development centers in Haifa, Jerusalem, Petah Tikva, and Yakum, and a manufacturing plant in the Kiryat Gat Industrial Park, where Intel develops and

produces microprocessors and communication products. Intel employs in Israel about 10,200 workers.

Intel generates revenues for the State of Israel through export activity at a volume of billions of shekels a year, constitutes an empowering workplace for 10,200 workers in Israel, and in addition provides employment to thousands of workers through the hundreds of suppliers of the company. The investments in the upgrading of the sites in Israel drive the Israeli economy through materials and services that the company acquires from engineering companies and contractors.

In the 43 years of activity of Intel in Israel, it has invested 14 billion dollars in infrastructures and technology. The sum of export by Intel from the start of its activity in Israel is more than 46.3 billion dollars. In the year 2016 the export revenues of Intel Israel were 3.4 billion dollars, and it constitutes about 8% of the export of Israeli hi-tech.

The volume of acquisition in the year 2016 in Israel was 1.5 billion dollars, when 75% was acquisition from small and medium-sized suppliers. Intel invested 777 million dollars in mutual technological procurement from about 200 Israeli suppliers that Intel helped in the development of new technologies and in the promotion of their commercial activity.

In the years 2015-2016 the Intel Ingenuity Program Partner provided technological and business support to 28 start-up companies in Israel and gave them international exposure.

3. SCR and Social Contribution by Intel Israel

In the year 2016 Intel donated 21 million shekels (about 6 million dollars) to the community in Israel. This datum includes financial donations to associations, schools, and academic institutions as well a donation in monetary equivalent (donations of equipment, services, and value of volunteer hours). The dimensions in which Intel contributed to the community are as follows:

3.1. Employment and Growth in the Periphery of the Country

Already from the very first days of Intel in Israel, the center of manufacturing activity in Kiryat Gat (a city in the south of Israel, which is defined as the periphery in Israel), constituted an accelerant of economic growth in the entire region and influenced the economy on the national level. The first manufacturing plant of Intel in the city was established in the year 1999, and since then Intel has continued to expand and upgrade its production abilities. Today

this plant is one of the most advanced in Intel's system of global manufacturing. Intel's activity in Kiryat Gat has an extensive influence on the city and the region through the payment of taxes, the creation of jobs, the purchases from local suppliers, and the investment in the promotion of education for science and technology in the city.

- In 2016-2018 Intel Israel invested 6 billion dollars in the upgrading of the manufacturing plant in Kiryat Gat.
- Following the lack of skilled workers, Intel trained at its expense hundreds of the region's residents in the construction professions. Thus, hundreds of workers acquired a new profession and a special skillset that would provide them in the future with a livelihood, in the present project of Intel and in additional projects and workplaces in the future.
- 70 suppliers of Intel are situated at a distance of 10 kilometers from the factory in Kiryat Gat.
- 3,300 workers in the plant make Intel into the largest employer in Kiryat Gat.
- 50% of the workers in the factory live in the South.
- Intel has invested six million dollars to promote scientific technological education in the south in the past twenty years.
- 36% of the management of the factory are women, and 20 % of the workers in the factory are women.
- 1500 factory workers have volunteered in the community in a range of programs for the promotion of scientific technological education.

3.2. Growth of Diverse Local Suppliers

As a part of Intel's commitment to contribute to the economic strength of the Israeli economy, Intel has created diversification in the supply chain and promotes local businesses, small businesses, women-owned businesses, and businesses from the periphery. Intel believes that the cultivation of diverse suppliers strengthens the Israeli economy and creates opportunities for initiatives and innovation and provides Intel with a stable basis for the supply of products and services.

- In 2016 Intel acquired from suppliers in Israel equipment and services at the sum of 1.5 billion dollars.
- 75% of the procurement was from small and medium-sized suppliers.
- Intel helps about 200 Israeli suppliers in the development of new technologies and the promotion of commercial activity.

- Intel has conducted 777 million dollars of reciprocal technological acquisition.
- The procurement of Intel from diverse subcontractors has reached 21 million dollars.

3.3. Promotion of Scientific Technological Education in Israel

- Intel Israel is one of the founding and financing organizations of the “5x2” Initiative, which about 100 hi-tech companies, funds, and non-profit organizations have joined, under the auspices of the Ministry of Education.
- Since the year 2012 Intel Israel has invested in the flagship program, the “5x2” Initiative, which has the goal of doubling in five years the number of students who finish high school with a high school matriculation certificate with five units in mathematics. Following its success, the “5x2” Initiative, was adopted in the year 2015 by the Ministry of Education and branded as the “Give 5” program. 800 volunteers from Intel donate their time and abilities to support teachers in classrooms, to provide reinforcement lessons, and so on.
- Intel especially emphasizes the encouragement of female high school students for excellence in the technological field, so that they will undertake academic studies in the subjects of science and technology.
 - As of the year 2016, 650 schools have participated in the “5x2” program.
 - Following the “5x2” Program, there was an increase of 44% in the number of students taking the test in five units in mathematics, from the year 2012 to the year 2016.
 - In the year 2019, following the program the number of students who will take the test in five units in mathematics will reach 18,000.
 - The sum of Intel’s investment in scientific technological education in the period 2012-2016 is 20 million shekels.

3.4. Cooperation with the Academia

Intel invests in the development of the next generation of engineers, both men and women, in Israel, through its support of the academia. It emphasizes excelling female students, so as to reinforce the gender diversity in the hi-tech industry in the present and in the future. These women students return value to the community in initiatives in collaboration with Intel, for the promotion of women in technology.

- Intel gave in the year 2016 twenty scholarships to excellent women students who are studying for a degree in engineering and the exact sciences.
- Intel donated in the year 2016 ten million shekels as research grants and donations to academic institutions for the purpose of the acquisition of innovative equipment required for the studies in advanced fields such as virtual reality and computer architecture for artificial intelligence.
- About 50 engineers from Intel volunteered as external lecturers in 24 full academic courses and as teaching assistants in 15 courses in the universities and colleges in Israel.
- Six senior managers from Intel sit on the advisory committees in different faculties in the universities.
- Three managers volunteer on the directorate of an academic institution.

3.5. Contribution to and Volunteering in the Community

- In the year 2016 Intel initiated the Urban Experience program, with the goal of helping the communities adjacent to the Intel plants (Kiryat Gat, Haifa, Jerusalem) to develop exhibits or facilities in the placemaking approach. This approach supports the creation of community focuses of interest around the city so as to strengthen the connection and sense of involvement of residents and visitors. The local authority, the community, and professional factors, including engineers, planners, and designers, cooperate in the work on these focuses, together creating a vibrant and attractive ‘scene’. Kiryat Gat was chosen for the implementation of the first focus, and in the framework of a unique project in collaboration with the municipality and the residents a facility for educational-community activity will be established, with the integration of Intel technology in the urban park.
- The global volunteer matching grant program of Intel began to operate in Israel in the year 2004, and its goal is to strengthen the volunteering of the workers and to strengthen their contribution to the community through the financial donation of \$10 to an association, in which the worker is volunteering, for every hour of volunteering. This program increases the workers’ influence and strengthens the relationship between them and the community and Intel. Thus, for example, in the framework of the “Think Positive” Program, the Intel volunteers provide tutorial lessons in English, science, and mathematics. In the year 2016 dozens of volunteers held tutorial lessons for about two hundred students around the country and the schools obtained grants accordingly.

- In the framework of the “Think Positive” Program Intel contributed 487,000 shekels through the volunteer grants for forty organizations and associations in the community.
- 40% of the Intel workers volunteered in the year 2016 and invested more than 46,000 volunteer hours for the promotion of social goals in the community.
- To make the worlds of technology and computerization more accessible, Intel opens its gates to student visits and promotes their exposure to these worlds. During the year 2016, in the Intel centers there were 8000 visitors.

3.6. Promotion of Diverse Populations

- The “Cracking the Glass Ceiling” Program helps young women with the potential to pave the way in the fields of the sciences and mathematics. As of the year 2016, there are 320 young girls in the programs in six schools.
- Intel was the first hi-tech company that adopted the “Leaders to the Technion ” Program in Haifa and encourages young women to turn to the advanced studies of the sciences and mathematics and to acquire a higher education in the field. Today in the program there are two hundred women students.
- 20% of the members of the lecturer pool of the “2X5” Program in Intel are workers from the Arab sector. The workers give lectures and lead excursions at the company’s sites. About 3200 Arab youths have attended Intel’s lectures and motivational excursions.
- Intel is the largest private employer of Arab engineers.
- Intel leads in the promotion and employment of Ultra-Orthodox women and holds excursions for the Ultra-Orthodox young women at the company’s sites in Jerusalem and Kiryat Gat so as to expose them to the world of hi-tech and the possibilities of employment in it. About 200 Ultra-Orthodox women have visited Intel.

3.7. Diversity and Inclusion

Intel believes that the workplace in which men and women, from a different background, are equal partners in the activity is a productive platform for creativity, innovation, and good teamwork. Intel is aware of the importance in the recruitment and promotion of excellent workers from a diverse background and assimilates the approach in different ways across the organization.

- 500 managers participated in workshops on the topic of diversity and inclusion. The goal of the workshops was to raise the awareness of the importance of a diverse staff and to reveal to the managers unconscious biases.
- 33% of all the students who work in the company are women.
- 10 years of the model of Ultra-Orthodox employment, practical engineers who are graduates of Beit Yakov for software testing. Over the years, other areas of focus were added, and the program broadened and includes also Ultra-Orthodox men.
- Intel is consistently broadening its circle of disabled workers, and for this purpose Intel initiates collaborations with associations and organizations. Intel places at the workers' disposal an occupational clinic, an ergonomic constellation appropriate to the special needs, and a highly accessible work environment.
- Intel is a pioneer and leader in the employment of engineers from the Arab sector, both men and women. For this purpose, Intel is a partner in the "Maantech" Program and operates in a variety of collaborations with the "Zofen" Organization.

3. 8. Environment Quality

Intel attributes considerable importance to efficient conduct, with the goal of reducing the environmental impact of its plants. Therefore, Intel aspires to reduce the use of resources, including energy and water, and to reduce the negative influences, such as waste and greenhouse gas emission.

Intel implements a comprehensive and uniform environmental policy in the development plants and in the manufacturing factories. In the field of development, Intel sees great importance in the improvement of the energetic efficiency of the products through the investment in development and innovation. In the manufacturing activity, Intel aspires to the self-manufacturing of most of the products and components required since the self-manufacturing enables the improvement of performances and the shortening of the time to market and the reduction of Intel's direct influence on the environment.

- In the year 2016 Intel reached the stage in which it succeeded in recycling 93% of the chemical waste in its plants in Israel.
- Intel dismantled the plant in Jerusalem and the dismantled equipment was transferred for re-use in various production systems in Israel. The percentage of the re-used equipment is 99% of the equipment dismantled in Jerusalem. What was not transferred to Intel's plants in Israel was given to other manufacturers at no cost (equipment valued at more than 7.6 million shekels). The transfer of the

equipment without return has significant environmental advantages, which includes the prevention of the new purchase of equipment and the significant reduction of waste.

- In the framework of the projects for the recycling of water, Intel recycles 271,822 cubic meters of water, an amount of water equal to 87 Olympic pools.
- Intel has saved 14.4 million cubic meters of electricity, equal to the consumption of energy of 900 homes in Israel.
- Intel has saved 9,518 tons of carbon dioxide emission following the saving of 14.4 million kilowatts per hour.
- Intel has succeeded in reducing the emission of greenhouse gases at a rate of 16,477 tons reduction in greenhouse gas emission. This datum is equivalent to the emission of greenhouse gases of 5,492 average vehicles.
- 28% of the vehicle fleet of Intel consists of hybrid cars, which lessen the level of greenhouse gas emission by 10%-30% on the average, in comparison to regular cars.

3. 9. Ethical Conduct

Ethical conduct is one of the foundation stones of the management approach in Intel. Intel makes certain to assimilate the rules of ethics in the activities of the company, whether in the social or financial business arena. The ethical code of global Intel guides the business activity of the company and the workers' behavior throughout the world, including in Israel.

The field of ethics in Israel is managed in Intel Israel through a nationwide steering committee that consists of ten representatives of the management from the sites in Israel. The role of the ethics committee is to ensure the assimilation of the ethical code in the organization, to bring ethics into the awareness through inner-organizational communication, to examine ethical dilemmas that arise in the framework of the company's ongoing conduct, to discuss them, and to suggest appropriate reference.

3.9.1. The Assimilation of Ethical Conduct

All the workers in Intel Israel undergo ethical instruction with the beginning of their work in the company and participate in a refresher course once a year. The course is held through educational software, and at the end there is a test. This test has a threshold grade that the workers must pass; otherwise they need to take the course again. In addition, workers in certain roles are obligated

to complete additional instruction sessions, such as, for example, instruction sessions for the prevention of corruption and business restrictions. In addition, throughout the year we convey to the workers messages in different topics from the field of ethics. In the year 2016, for example, Intel emphasized the prevention of the leakage of information and the preservation of confidentiality.

The policy of reporting the violation of the ethical code in Intel enables the worker to turn to every manager on this topic. We also operate an anonymous hot line for complaints or inquiries on the topic of the violation of the ethical code, and they are transferred for handling to the manpower division, the security division, and the managers of the ethics field.

The ethical code of Intel is based on five principles:

- Intel conducts business fairly and honestly.
- Intel operates according to the language and spirit of the law.
- Intel employees treat each other with respect.
- Intel employees act according to the company's interests and avoid conflicts of interest.
- Intel employees protect the company's assets and reputation.

Ethics in the supply chain:

- The ethical code of global Intel also binds the company's suppliers and their workers. Like all sites of Intel around the world, Intel Israel promotes ethical conduct among its global suppliers and obligates them to meet the standards of the ethical conduct of the Electronic Industry Citizenship Coalition (EICC).

3.10. The Workers as Partners

Intel sees its employees to be partners in success. The continuation of Intel Israel's leadership of the technological field relies on the ability to recruit and retain creative and dedicated people, with technological desire and innovation. Intel offers its workers an empowering work environment that includes opportunities for personal and professional growth, human diversification, challenge and interest, and competitive compensation. Intel understands that as an employer it has significant impact on its employees' personal lives, and therefore its goal is to help workers preserve a balanced lifestyle that incorporates professional development and personal growth.

- In the year 2016 in Intel Israel there are 10,200 employees, when 67% work in development and 33% work in the manufacturing center.
- In the year 2016 about 28% of the new workers who joined Intel are women. A total of 527 women were recruited, as opposed to 490 women in 2015, an

increase of 7.5%. It is important to Intel to integrate women in all positions, and Intel puts forth considerable effort to identify and recruit more women.

- Intel gave a double bonus to employees who helped recruit women workers in the framework of the “Friend Brings a Friend” Program, which constitutes the most effective source of recruitment in Intel.

- Intel invests in the training of leadership for women and creates opportunities for the development of professional abilities. Women constitute 30% of Intel’s management.

- Intel distributed twenty scholarships to excellent women students. The scholarship program enables the connection between the woman receiving the scholarship and Intel throughout the entire year.

- In the year 2017 Intel was ranked in the third place in the ranking of the best companies to work in. This is the third time continuously that Intel was ranked in the third place.

- Intel added five paid weeks to the maternity leave. In the first eight months of the program, 429 of the 681 workers who were eligible used the extended paid maternity leave.

- 1,079 infants were born this year to Intel employees. Intel gives the mother’s spouse two weeks of paid leave that can be used up to a year after the birth.

Table 1. Data on Corporate Responsibility – Intel Israel 2016

Main Measures	2014	2015	2016
Economy			
Volume of export (in billions of \$)	4.2	4.1	3.4
Procurement expenses in Israel (in billions of \$)	0.9	1.1	1.5
Reciprocal procurement (in billions of \$)	660	696	777
Number of suppliers in Israel	1,100	1,200	1,300
Multi-year investment in the upgrading of the factor in Kiryat Gat 2015-2018 (in billions of \$)		6	
Work Place			

Number of workers at the end of the year	9,244	10,000	10,200
Women as a workforce in Intel Israel	21%	22%	21%
Women in the company management	30%	30%	30%
Community			
Financial donation to associations, schools, and academic institutions (millions of shekels)	16.75	14.25	14.85
Donation in monetary equivalent in millions of shekels (including donation of equipment, services, and hours of volunteering)	16.25	9.75	5.85
Total in millions of shekels	33	24	21
Percentage of worker volunteering	40%	42%	40%
Number of hours of volunteering	37,500	43,290	46,570
Environment			
Emission of greenhouse gases (millions of tons of CO₂ equivalent)	0.110	0.105	0.158
Energy consumption (billions of kilowatts per hour – electricity, gas, and diesel)	0.34	0.32	0.42
Consumption of water (millions of cubic meters)	2.27	2.11	2.3
Production of waste (thousands of tons) / recycling of chemical waste	13.8/81%	16.9/82%	7.3/93%
Recycling of solid waste (thousands of tons) / recycling of solid waste	4.7/93%	5.9/74%	4.75/44%

4. Conclusion and outlook

Intel is one of the largest companies in the Israeli economy, and in the coming years Intel plans to open another plant in Israel. There is no doubt that according to the company's strategy and vision Intel will continue to expand its social activities in Israel and will continue to increase the scope of funds and resources in order to maintain its status as the leading company in the field of social responsibility in Israel.

REFERENCES

- Barkai, T. (2008). Neo-Liberalism in Zionist Translation: Social Responsibility of Businesses in the Mirror of the Social Struggle for Israeli Identity, *Theory and Criticism*, 33, 45-71. (Hebrew)
- DiMaggio, Powell (1983). The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields. *American sociological review*, April 1983
- Meyer, John, Scott, W. (1983). *Institutional Environments: Rituals and Rationality*. Sage Press
- Cohen, L. (2003). *Businesses and Community, Social Responsibility – New Paradigms*, February. Retrieved from the Website of the Israeli Center for the Research of the Third Sector. (Hebrew)
- Cohen, L. (2004). *Businesses and Community – New Paradigms*, Beer-sheva: Ben Gurion University, The Israeli Center for the Research of the Third Sector. (Hebrew)
- Inbal, A. (2013). *Social Responsibility in Business Organizations*, June. Retrieved from the website: <http://in.bgu.ac.il/fom/ictr/DocLib2/socialresponsibility1.pdf> (Hebrew)
- Kreizler, H. (2005). *We Contributed in the Office – On the Relationship between Social Responsibility of Businesses and Government Regulation in Israel*. Tel Aviv University. (Hebrew)
- Reichel, A., Gidron, B., Gamliel, S. (2000). *Social Responsibility of Businesses in Israel. Beersheva: Israeli Center for Research of the Third Sector*. Ben Gurion University of the Negev. (Hebrew)
- Shamir, R. (2007). Private Market and Public Pressure: On the Shaping of the Concept of the Social Responsibility of Corporations. (Hebrew)
- Intel site, retrieved from the website: <https://www.intel.co.il/content/www/il/he/homepage.html>

RISK MANAGEMENT AND ACCOUNTING WITH FINTECH

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Abstract

The reporting and organization of accounting activities are changing with the advent of new FINTECH technologies in our daily life and the business environment. And, in particular, new technologies provide new opportunities for the development and improvement of the accounting organizational structure in individual enterprises. This report presents new opportunities related to artificial intelligence technologies for managing accounting documents, providing accounting services, and risk management. We can conclude that potential blockchain applications are important, especially in financial and accounting services, where cross-border payments are already implemented.

Keywords: FinTech, accounting, risk management

JEL Codes: G32, M41

1. Introduction

Over the past few years, there has been a boom in the development of FINTECH technologies. The term "FINTECH" has been defined in the EU as "technology-oriented financial innovations that can lead to new business models, applications, processes or products related to them, material impact on financial markets and institutions, and the provision of financial services". Due to new technologies, accounting is also changing, as well as a new organizational structure, namely, cloud accounting. On the other hand, the prevailing definitions of the concept of risk emphasize the negative consequences and losses of its possible implementation. Risk management is very important for modern companies. The use of blockchain technology in the field of risk management can

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reduce risk generation to some extent and even eliminate it in some cases. Many organizations consider the blockchain as the fundamental technology of risk management.

2. Literature review

Valkanov (2019) treats the interaction between financial institutions and compliance orientated technological innovations outlining three possible perspectives for future development. According to Valkanov (2019), the application of blockchain-based technologies, artificial intelligence, and big data is gaining more and more popularity in different segments of finance, including the regulatory related areas. What is more, the appearance of RegTech firms changes the traditional model for the treatment of regulatory-related issues by financial intermediaries themselves, introducing the opportunity for cooperation with external providers of technological expertise. Radilov (2019) claims that in the digital economy an important position is occupied by the knowledge economy, which will develop and dominate throughout the entire 21st century. Additionally, under it, the most important resource and true wealth will be people themselves with their knowledge, intellect, and experience. Zacharoula (2019) argues that nowadays, innovation has a profound impact on every organizational system, on any industry and the same seems to apply to educational systems of any level.

Zacharoula (2019) explores the higher education in Greece, as applied today and in the forthcoming years and the aim of her study is ternary; firstly, the research on the implementation of international innovation indicators in education, secondly, the mapping of the school organizational culture, and finally, the correlation between innovation and school culture.

Petrova (2018) claims that new FINTECH technologies will significantly change accounting, and accounting will move to the next level of automation-cloud accounting. Besides, accounting must be rationalized and constantly adapted to the needs of the environment and consumers. Also, the accounting profession is going out of the dogma, and its implementation requires some additional knowledge (Petrova, 2018, pp. 246-247). Semova et al. (2018, p. 274) argue that the blockchain functionality changes the technology for entering, processing, storing, and exchanging data (including accounting), by creating a public registry and allowing transactions to be concluded without intermediaries and with appropriate parameters.

Larsson et al. (2018) summarize and analyze the responses of a survey conducted among FINTECH executives in Sweden. Those that offer FINTECH

services in the field of accounting and processing of accounting documents indicate that the main difficulties they face are related to the recruitment of qualified and trained managers, as well as the legal framework. Additionally, executives say that the biggest challenges they face are finding funding and changing the way their clients think and work. Sweden is actively working to change consumer attitudes to be able to work with new accounting products and services, as well as to change the legal framework in the country (Larsson et al., 2018, p. 404). Yermak (2017) shows how blockchain technology can be used in financial market analysis, providing transparency, liquidity, and real-time placement. It presents a variety of opportunities for outsourcing the audit of transactions with shares through the use of blockchain technology. If we assume that the blockchain technology accurately and correctly identifies the holder of shares, then the issuing company will be able to identify unfavorable positions. (Yermak, 2017, pp. 7-31).

Ionescu et al. (2013) examine the activities of Romanian accounting companies that develop and actively offer cloud-based accounting applications. These companies provide accounting services without making accounting documents on a paper basis, and certain accounting operations are performed on platforms based on cloud technologies. It has been empirically proven that cloud-based accounting applications reduce the costs of Romanian companies that use them, resulting in significant financial savings and reduced additional costs (Ionescu et al., 2013, pp. 1-21). Tapscott and Tapscott (2017) explore how blockchain technology can change organizations. In particular, they analyze changes affecting the following activities: financing; management; creating value; marketing; accounting; staff incentives. They conclude that new technologies, including cloud services and blockchain technologies, will allow cooperatives to distribute overhead costs, eliminating mid-level managers and other intermediaries and thereby reducing the activities of businesses in other areas such as accounting, banking, etc. (Tapscott and Tapscott, 2017, pp. 10-13). Kai (2018) reviews the literature and summarizes the results of 402 scientific articles in the field of FINTECH technologies published for the period from 2010 to 2018. He concluded that only 68 of these scientific publications are in the subject of research of blockchain technology in business, including areas such as accounting/audit, management, organization, and finance. Most of these studies present blockchain innovations in the business environment and /or generalize business applications using blockchain technology. Very few of them are studies that are at the descriptive level, analyzing new theories and moments underlying the blockchain phenomenon (Kai, 2018, pp. 15-16). Ozdemir and Elitash (2015)

argue that there are risks of using cloud technologies in the accounting sector. Accounting service providers are responsible for storing and protecting digital financial data, which is extremely important for companies. Service providers must take all necessary technical measures to ensure that digital data is not damaged, lost, or stolen by third parties. FINTECH companies that offer cloud-based accounting services must build the necessary infrastructure and models to predict the overall risks of cloud technologies and successfully store enterprise digital data in a secure and secure environment (Ozdemir and Elitash, 2015, p. 58).

Gerunov (2019) presents the high relationship between the different types of risks and significant overlap between some of them. Also, this assumes comprehensive consideration of the risky impact of modern organization and a unified approach to its management. What is more, effective risk management is required as an important source competitive advantage of modern organizations and, therefore, as an important and current research topic.

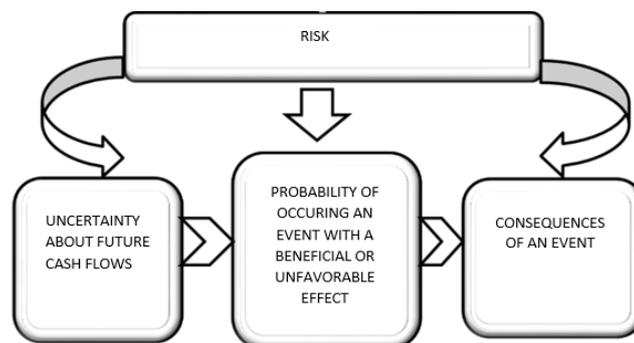
Risk accompanies financial markets. This is related to the disclosure of financial instruments that are necessary for its efficient and optimal management. The concept of risk in economic literature implies different content and determination. Risk management in a dynamic financial environment becomes a challenge and a core mission for all countries, organizations, and institutions. Often, the main aim of the risk management process is to evaluate and manage risk, rather than to avoid and eliminate it. There is a risk where more than one result can be realized (Galits, 1994). Risk is *"objective uncertainty manifesting as an unwanted event. Risk is a complex of dangers and it is measured by probabilities."* (Uils, 1994). Risk as an economic category *"expresses the likelihood that the final result of a process will deviate from the expected one or when a statistical approach is used, the risk expresses a possible deviation from the expected average"* (Tsenkov, 2017). The definition of a risk situation involves the availability of alternative outcomes. Whenever there is a deviation from the expected result, there is a risk regardless of whether the deviation is positive or negative compared to the expected result. This generally means that the term "risk" is not limited to potential loss. "Risk" may be associated with the likelihood of undesirable and adverse changes. These are in fact cases where negative deviations from the expected return are realized and are defined by the term downward risk. The risk is generally the likelihood of loss or damage (Stateva, 2015).

Jorian (2007) determines risk as *"the volatility of unexpected results that represent the value of assets, equity, and income"*. According to him, as a

qualitative characteristic of risk, it is possible to determine the volatility of return. Risk is an objective phenomenon and as such it is inevitable, it cannot be eliminated, but it can be limited, transferred, divided, covered. Simeonov (2005) defines financial risk as "related, in particular, to the probability of factors that will reduce or destroy the expected income. In general, however, the risk exists in any uncertainty situation - regardless of the specific ex-ante evaluation of the desired or undesired outcome. In the same way, no risk is taken into account in the safe development of events, whether they are desired or unwanted. "

In his study, Ganchev (2010) states that: "All financial theories, explicit or implicit, include hypotheses about the impact of risk on economic agents' assessment of the utility (or negative utility) of expected income (loss). The general principle is that risk diminishes utility (so-called risk aversion). " In one of his recent studies, Ganchev (2017) concluded that risk is a necessary parameter that makes the existence of complex economic systems possible, since the construction of "secure" structures is impossible, i.e. risk and uncertainty are important and the macroeconomic aspect is positive despite the likelihood of micro-level losses. When the risk is defined, it aims to eliminate volatility, and what is made to replace the various possible outcomes with one sure result. Accordingly, appropriate alternative risk management tools and techniques are selected for this purpose, which includes an obligation to perform a future fixed-line transaction. Risk can be defined as a combination of the following aspects: the likelihood of a particular event to occur, which can be defined as having an unfavorable and favorable outcome; uncertainty about future cash flows, and consequences of event realization (figure 1).

Figure 1. The theoretical content of risk concept



Source: Andasarova-Georgieva (2015, p. 9)

Risk is:

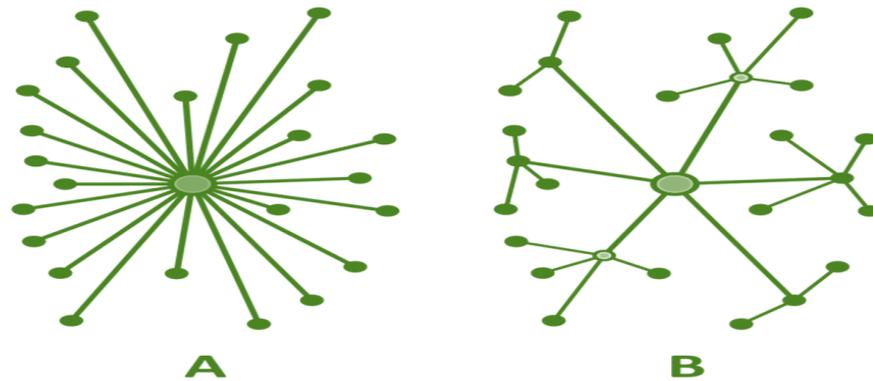
1. The result of an objective and inevitable event that corresponds to a utility decrease;
2. The realization of which is a deviation from the expected result;
3. Expressed in the occurrence of undesirable and adverse effects which, in the scope of this study, represent an increased likelihood of bankruptcy or insolvency of the state.

The definitions of the concept of risk emphasize the negative consequences and losses of its possible realization. Risk management is very important for FINTECH companies. The application of blockchain technology in the field of risk management can reduce to some extent the generation of risk and even eliminate it. Many organizations view blockchain as a major risk management technology.

3. Discussion and results

Blockchain is a constantly growing list of digital records in packages (called blocks) that are linked and protected by cryptography. These digital records - "blocks" - of data are stored in a linear chain. Each block in the chain contains data (such as a bitcoin transaction), is cryptographically hashed and stamped. Each block of hashed data pulls the information from the previous block (the block that precedes it) into the chain, ensuring that all data in the entire blockchain is not modified and tampered with. A special case of using blockchain technology is a product created on its basis - cryptocurrencies. For the first time, the world became aware of Blockchain thanks to the creation of Bitcoin. In 2008, it was invented by an unknown programmer (or group of people) under the name Satoshi Nakamoto. During the launch of the platform, he published a document explaining in detail the ideological, technical, and mathematical principles of the platform's operation. Blockchain is a decentralized technology. Decentralization is a process of redistribution or assignment of powers or functions concentrated in a central place or a central authority. The opposite process is called centering (or "concentration"). Everything that happens in it is a function of the network as a whole (Figure 2). As a result of creating a new way to verify transactions, some aspects of traditional trading may become redundant. The global network of computers uses blockchain technology to share Bitcoin transaction database management. Cryptocurrency is controlled by its network, not by a central authority. Decentralization means that the network operates as a peer-to-peer (P2P) network.

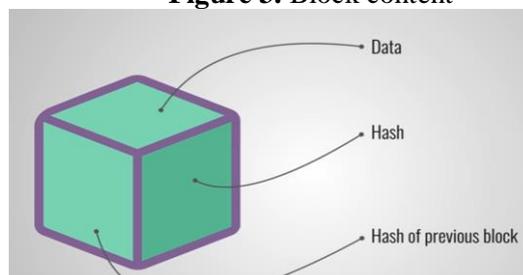
Figure 2. A centralized and decentralized system



Source: https://en.wikipedia.org/wiki/Decentralised_system

Blockchain operates as a ledger where information is stored in ledgers or registers, distributed among many and different users. This makes the system decentralized because there is no single storage or depository for transactions and information. Each new information and transaction is added to a new layer of the chain, which is verified with a cryptographic signature. The input data cannot be changed, only new information can be added. This increases the confidence among the participants in the chain. A blockchain is a long-growing list of records that are called blocks. They are connected and they are encrypted. Typically, each block contains a hash pointer that connects it to the previous block, and it also contains a timestamp certificate and transaction records that are stored in the block. It is extremely difficult to modify the data that blockchain technology creates and contains. Each block contains the following elements: hash, data (information), hash from the previous block.

Figure 3. Block content

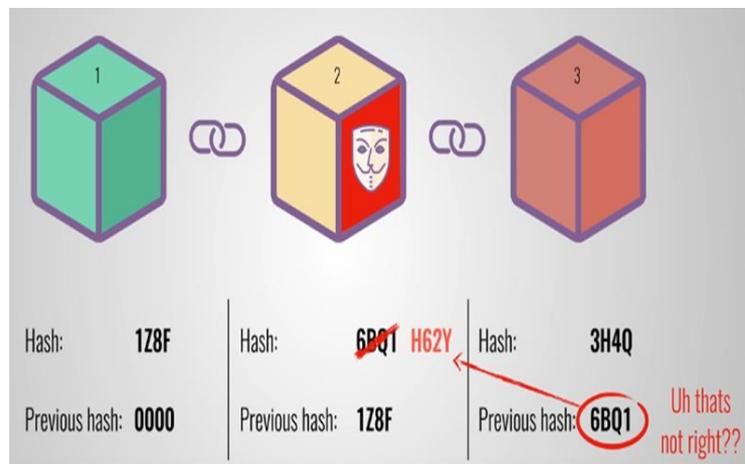


Source: https://www.youtube.com/watch?v=SSo_EIwHSd4

The data in the block depends on the type of blockchain. The whole transaction is aggregated into a single string. The so-called hash function is used. Thus, the transaction receives a unique code that cannot be duplicated and can be identified by it. We can compare it with a fingerprint. It identifies the block and all its contents. The hash is also calculated when the block is created. The block change will result in a hash change. The first block of the chain is special. It does not contain information about the other blocks in the chain (hash). It is called a genesis block. The following blocks contain data that can block the information of the previous blocks, i.e. the hash is used for protection.

Blockchain technology is based on the process of encryption information that is performed by the integrated computers from the network. All information is distributed among network members based on a principle similar to torrent file sharing. Hashing is a check of the integrity of a digital or alphabet message and it is performed by the use of a special algorithm. By clicking a message through this algorithm, the system participant hashes it – this leads to a hash. If one of the blocks in the chain is falsified or modified, it causes a change in the hash and so changing one block will transform the others into invalid ones.

Figure 4. Hashing



Source: https://www.youtube.com/watch?v=SSo_ETwHSd4

In Table 1 we describe the advantages and disadvantages of applying blockchain technology as a major mechanism for managing financial risk.

Table 1. Advantages and disadvantages of blockchain technology

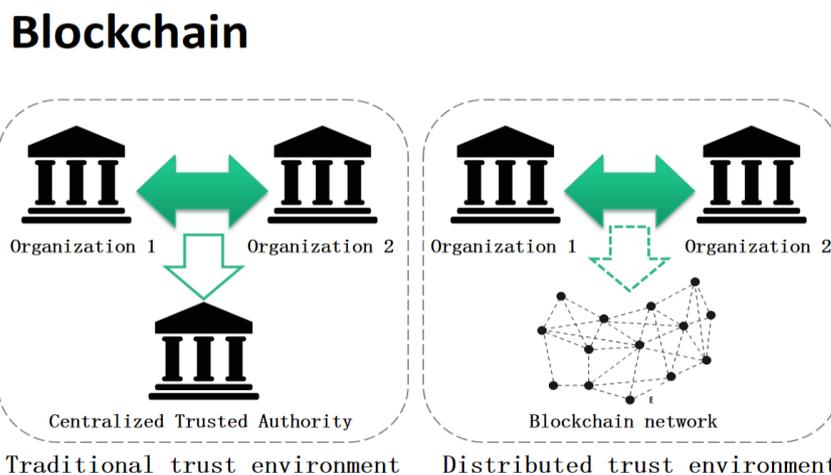
Advantages	Disadvantages
<p>Transparency Each connected block in a common chain is publicly accessible. Each user can check the entire transaction path.</p>	<p>Irreversibility of transactions or transactions The transfer of information is irreversible. It is impossible to cancel a blockchain transaction, even with an error when programming the operation.</p>
<p>Decentralization Each of the nodes which are participating in the network has equal access and ability to transfer data directly.</p>	<p>Scalability If at least a small portion of Visa's transactions due to the Bitcoin system, the amount of stored data can reach hundreds of terabytes.</p>
<p>Reliability The operation of the system implies high protection against hacker attacks and data substitution by using special encryption keys.</p>	<p>51% Attack If the percentage of the computing power of the network which is possessed by one user, exceeds 51%, the integrity of the Blockchain platform may be compromised.</p>

Source: Authors' systematization

Banks play an important role in the financial market, adding more value to money, and maintaining the financial system. As an intermediary, they help generate savings and distribute funds to borrowers. The loan contributes to the banks' profits, and risk management is the key to success. Credit risk refers to the potential for a loss because one of the parties of the agreement fails to fulfill its contractual financial obligation promptly. Banks are more interested in this aspect when lending to borrowers. Traditional credit risk management typically involves two steps. At the pre-assessment stage, the borrower is evaluated based on historical records and the value of them. After analyzing the level of credit, the bank will recommend appropriate credit services. On the scene after management, banks should periodically monitor the condition of borrowers to make sure everything is in order as planned. If an unforeseen situation occurs, banks should receive an alert and they should deal with the potential loss

immediately. Blockchain technology would change credit risk management significantly. First, blockchain makes data more reliable. The block generation mechanism ensures that you do not have to pay a high price to put incorrect information in the chain. Second, the data in the chain is traceable and unchangeable, so all the history information can be extracted, and borrowers cannot manipulate the data to apply for a loan. The effectiveness of blockchain in credit risk management is also determined by the consensus system. Blockchain technology eliminates the need for financial intermediaries. Currently, when doing business with one another, we do not share our private financial or business registers, but rather rely on trusted intermediaries such as a lawyer or bank to verify your identity and documentation. By Blockchain technology, trust is built for users. By using a process called cryptography, the buyer can confirm the seller's identity and that he or she owns the asset.

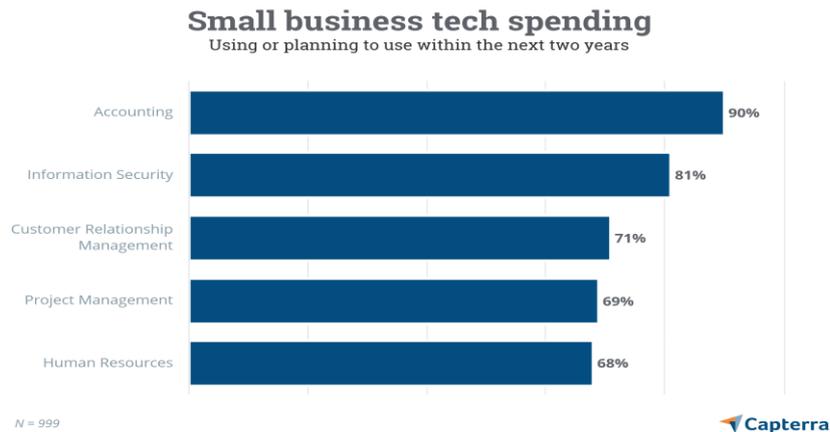
Figure 5. Blockchain network as a substitute for financial intermediaries



Source: Authors' modification based on <https://www.wikipedia.org/>

Figure 6 shows the results of research conducted among more than 700 small businesses in the United States in 2018 considering the use of FINTECH services in their activities.

Figure 6. Results of a study conducted among more than 700 small businesses in the United States in 2018 considering the use of FINTECH services in their activities



Source: <https://blog.capterra.com/small-business-fintech-spending/#survey>.

The results show that small businesses invest a lot of money and resources in FINTECH services, with the largest expenditures related to accounting services (90% of small businesses use or will use FINTECH-based accounting services over the next 2 years). The main advantages that small businesses expect from the introduction of accounting services based on FINTECH technology are also indicated:

- Reduced time for administrative tasks and activities - one of the main advantages of implementing new technology in accounting is that it makes routine and time-consuming accounting activities, such as posting and filling out payment documents and invoices, more efficient. And, what's more, it saves time, as Getapp's research shows that 37 percent of small businesses in the United States save more than three hours a week using new accounting technology. Also, new financial accounting technologies offer new accounting applications that integrate and link individual data for the respective enterprise.
- Reduce the number of inaccuracies and inconsistencies that occur due to human errors-in each enterprise. For example, you can lose accounting documents, make mistakes in mathematical calculations or accounting data to refer to the wrong column in the corresponding

spreadsheet. In small businesses, operational and routine accounting activities take up most of the time of accountants, and they are more likely and predisposed to making technical errors. Through the use of accounting software based on artificial intelligence, this accounting activity is facilitated, and it draws and calculates the necessary formulas and dependencies. For instance, accounting software based on FINTECH technology easily implements the link between an individual enterprise and a servicing Bank, reconciling Bank account data and those presented in financial reports. Thus, the corresponding amounts of accounting documents are compared, as well as existing errors and inconsistencies that need to be corrected are detected. By importing data from Bank statements and documents to the accounting software platform, accounting information is synchronized, and it takes only a few minutes to compile reports. This process saves significant time for accountants and reduces errors.

➤ Assistance in the procedure for calculating tax liabilities and completing and submitting the necessary documents to state authorities. Using new accounting technologies, businesses could easily calculate corporate tax arrears. By using FINTECH technologies in accounting, businesses can export electronic files from the platform to the tax authorities. Also, with the development of RegTech technologies, changes in tax legislation and regulations will be automatically reflected in the accounting software used.

➤ Automatic preparation of financial reports using data from accounting documents. Using FINTECH technologies in accounting, businesses can prepare their annual financial reports, as well as other reports that show limitations in their activities.

On the other hand, with the introduction of FINTECH technologies, a new organizational structure of accounting has also appeared, namely, cloud accounting. Cloud accounting can be defined as a set of accounting services that are performed and available over the Internet. The main advantages of cloud accounting are the following:

1. Security - when using cloud services, new security increases. Internet-based systems provide a better level of security and control than traditional software. Using cloud accounting reduces the costs associated with storing documents on paper, as well as the overall cost of maintaining the accounting Department's workplace.

2. Adaptability and convenience - using this new cloud-based software is much easier than traditional software tools. Also, software updates are performed very easily and often by cloud service providers themselves. Unlike traditional accounting applications, the physical installation of the client's work computers is not required in cloud accounting, resulting in significant time and cost savings.

3. Simple management-the accounting application provides access to all data from anywhere in the world and the only condition is to have the Internet. Besides, users of cloud accounting services use the same version of the accounting software, thereby eliminating potential problems associated with the incompatibility of different versions.

4. Compliance and reliability - cloud accounting software complies with and reflects all legal requirements, including accounting standards and internal control rules.

5. Availability-employees, suppliers, and customers have access to and can update information from anywhere with secure Internet access without having to be in the office. Cloud services can also be used on mobile devices

6. Speed-thanks to cloud accounting, you can transfer a large volume of databases in a really short period of time, which reduces time and resources for businesses.

4. Conclusion

Potential blockchain applications are important, especially in financial and accounting services, where cross-border payments are already implemented. Smart contracts, cloud storage with encryption, supply chain accountability, and many other features are likely to be driven by the progress of FINTECH in the coming years. In addition to financial services, blockchain will become the main technology for future risk management. Finance and accounting must do the following: build a blockchain project and make sure that the blockchain applications are running as intended from a financial and accounting point of view.

REFERENCES

- Andasarova-Georgieva, R. (2015). Upravljenje na kreditniya risk v targovskite banki v usloviya na kriza, Avtoreferat. s. 9.
- Cai, C. (2018). Disruption of financial intermediation by FinTech: a review on crowdfunding and blockchain. *Accounting & Finance*. 10.1111/acfi.12405.

- Conrad, A. (2019). Small businesses are upping their Fintech spending in 2019: Here's why. <https://blog.capterra.com/articles/finance-software/accounting/>.
- Galits, L. (1994). *Finansov inzhenering*. Delfin pres, Burgas.
- Ganchev, G. (2010). *Finansite kato sistema: evolyutsiya, teoriya, politika*. Yugozapaden universitet „Neofit Rilski“, Blagoevgrad.
- Ganchev, G. (2017). *Money, Cycles and Complexity*. World Economics Association Conferencies: Economic Philosophy: Complexities in Economics.
- Gerunov, A. (2019). Risk management: typologies, principles and approaches, *Entrepreneurship*. Volume: VII, Issue: 2, pp. 205-244 http://ep.swu.bg/images/pdfarticles/2019/RISK_MANAGEMENT TYPOLOG IES PRINCIPLES AND APPROACHES.pdf
- Hermann, M., Pentek, T., Otto, B. (2016). *Design Principles for Industrie 4.0 Scenarios*. Proceedings of 49th Hawaii International Conference on System Sciences HICSS, Koloa, 5-8 January 2016, 3928-3937.
- Hristova, Hr. (2019). (Ro)bot vs Schetovoditel, ili pone tri prichini da ne podtsenyavame rolyata na estestveniya intelekt v profesiyata, <http://www.karieri.bg/>.
- Ionescu, B., Ionescu, I., Bendovschi, A., Tudoran, L. (2013). *Traditional accounting vs. Cloud accounting*. Conference: Accounting and Management Information Systems - AMIS 2013.
- Jorion, P. (2007). *Value at Risk*, 3rd Edition edn., McGraw-Hill, New York.
- Larsson, A., Teigland, R., Siri, S., Puertas, A., Bogusz, C. (2018). The Rise and Development of FinTech: Accounts of Disruption from Sweden and Beyond.
- Lemieux, V. (2016). Trusting records: is Blockchain technology the answer? *Records Management Journal*, 26 (2), pp. 110 - 139.
- Özdemir, S., Elitaş, C. (2015). The Risks of Cloud Computing in Accounting Field and the Solution Offers: The Case of Turkey. *İşletme Araştırmaları Dergisi*, 7, pp. 43-59.
- Petrova, P. (2018). *Industriya 4.0 i schetovodstvoto: predizvikatelstva i vazmozhnosti*, Mezhdunarodna konferentsiya „Ikonomicheski i upravleniski politiki i predizvikatelstva kam Industriya 4.0. Tehnologiya ili ideologiya“, Sbornik s dokladi, str. 242- 247.
- Radilov, D. S. (2019). Statistical information and the digital economy in the globalized world. *Economics and Management*, XVI (2), pp.1-10. <http://em.swu.bg/images/SpisanieIkonomikaupload/Spisanieikonomika2019/STATISTICAL%20INFORMATION%20AND%20THE%20DIGITAL%20ECONOMY%20IN.pdf>

- Semova, M., Dimitrova, V., Haralampiev, K. (2018). *Kriptoaluti i finansirane na sotsialni i protivooobshchestveni proekti*. Mezhdunarodna konferentsiya „Ikonomicheski i upravleniski politiki i predizvikatelstva kam Industriya 4.0. Tehnologiya ili ideologiya“, Sbornik s dokladi, str. 270-279.
- Simeonov, S. (2005). *Finansovi derivati*, ABAGAR, Veliko Tarnovo.
- Stateva, Y. (2015). *Finansovi derivati*, Izdatelski kompleks-UNSS, Sofiya.
- Strategiya za nablyudenie na finansovite tehnologii (FinTech) v nebankoviya finansov sektor (2018 g. – 2020 g.), prieta ot KFN prez 2018 g.
- Tapscott, D., Tapscott, A. (2017). How blockchain will change organizations. *MIT Sloan Management Review*, 58(2), pp. 10–13.
- Tsenkov, V. (2017). *Zastrahovatelni otnosheniya*, Izdatelstvo BON, Blagoevgrad.
- Uils, Dzh. (1994). *Upravlenie na riska v bankovata sfera*, Izd. "Hefest", Plovdiv, s. 9.
- Valkanov, N. (2019). Mitigation of regulations burden in financial sector by application of high tech solutions, *Economics and Management*, XVI (1), pp. 19-30.
<http://em.swu.bg/images/SpisanieIkonomikaupload/Spisanieikonomika2019/MITIGATION%20OF%20REGULATIONS%20BURDEN%20IN%20FINANCIAL%20SECTOR.pdf>
- Yermack, D. (2017). Corporate governance and blockchain. *Review of Finance*, 21(1), pp.7–31.
- Zacharoula, L. (2019). Innovate practices in education management in Greece. *Economics and Management*, XVI (2), pp.141-156.
<http://em.swu.bg/images/SpisanieIkonomikaupload/Spisanieikonomika2019/INNOVATE%20PRACTICES%20IN%20EDUCATION%20MANAGEMENT%20IN%20GREECE.pdf>

AREAS FOR IMPROVEMENT OF BUSINESS MODELS OF INDUSTRIAL ENTERPRISES IN THE CONDITIONS OF DIGITAL TRANSFORMATIONS

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Abstract

The article provides the analysis of the features of economic business models and the suggestions for their improvement. The O. Osterwalder and Y. Pigneur's business model was further developed in terms of expanding its structural elements and highlighting the "Technology" block, which allows to specify the business digitalisation processes (which are necessary in modern business conditions) as well as to present an integrated structure of interconnected components, clearly demonstrate the directions and types of changes of the existing business model and more clearly define the competitive advantages of the enterprise in the market. Possible software products for automating business processes of industrial enterprises are identified.

Keywords: communication business processes, industrial enterprises, digital transformation, software programs.

JEL Code: M 15

1. Introduction

In the conditions of fierce competition, the "partial (local)" improvement of activity will not provide the stable position in the market and obtaining planned profit for modern domestic industrial enterprises. Strategically justified dramatic changes are necessary and they should be proactive. At the stage of implementing the complete business digitalization, it is necessary to change the organizational structure of enterprise management, to develop or customize a new business model for its own specific features.

Such scientists investigated issues of developing effective business models as Zudbinova (2014), Ivashchenko (2017), Revutska (2002), Ryabykina (2014), Sachynska (2015), Anthony, Johnson, Sinfield & Altman (2018), Skryl (2016), Soolyate (2010), Strekalova (2009), Frolova & Kravchenko (2012) and other. But the issue of implementing the specific structural elements into existing business models to meet new market requirements, in our opinion, remains insufficiently

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studied and requires further scientific justification.

The purpose of the article is to determine the areas for improving the business models of industrial enterprises in the context of business digitization. The following tasks are formulated in accordance with the purpose:

- to study the existing business models,
- to justify the suggestion for improving business models in terms of implementing digital technologies into the activities of industrial enterprises,
- to identify possible software products for their automation of business processes of industrial enterprises.

Critical analysis of information sources, methods of analysis, synthesis and generalization were used to achieve the objectives of the study.

2. The improvement of the O. Osterwalder and Y.Pigneur's business model

Now the most common business models are the models developed by Slywotzky (2006), Chesbrough et al. (2005), Johnson, Christensen & Kagermann (2009), Schweizer (2007), Osterwalder and Pigneur (2012) and other.

In particular, in his book "Value Migration" of Slywotzky (2006) – the managing director of the international consulting company Mercer Management Consulting –notes that in order to create a successful business model, a number of important decisions should be made in different dimensions. He believes that it is necessary to select those elements that will meet the priorities of consumers and to fit them properly – then the whole model will function as a whole. The basis of any business model is a set of basic provisions on the consumer and business economy, namely:

1. Highlighting key points that answer the questions: How do consumers change? What are their priorities? What are the key factors for profit generation in my business?
2. Determining the elements that are the most consistent with the priorities of consumers by blocks:
 - 2.1. Consumer choice.
 - 2.2. Coverage.
 - 2.3. Differentiation.
 - 2.4. Retention of created value.
3. The decision how the company will satisfy the abovementioned needs and gain profits by blocks:
 - 3.1. Procurement system.
 - 3.2. Manufacturing/operations system.

- 3.3. Demand for capital.
- 3.4. System of research and product development.
- 3.5. Organizational model.
- 3.6. Market-entry mechanisms.

Despite the fact that Slywotzky notes that while generating a business model within the abovementioned dimensions, some of them are more important, but the importance of the use of technological solutions remains outside his attention. This aspect, in our opinion, requires additional scientific research.

Johnson, Christensen and Kagermann (2009) propose to consider the business model as a combination of four interlocking elements or submodels that taken together create and deliver the value to consumers:

- 1. Customer value proposition (key consumers, the need to be satisfied; company offer).
- 2. Profit formula (revenue model; cost structure; margin model, resource velocity).
- 3. Key resources (personnel; technology, products; equipment; information; supply chains; partnerships, alliances, etc.).
- 4. Key processes (processes, rules, norms).

This business model is fully focused on ensuring the valuable needs of consumers in a more efficient way than that of competitors, but at the same time, it focuses the activity of enterprise on key processes (item 4). The latter, in our opinion, are to be supplemented and expanded in terms of considering communication business processes as specific ones, on the one hand, and key ones for globalized markets, on the other hand.

Osterwalder and Pigneur (2009) suggested the business model which takes into account four elements of above mentioned model and complemented it. It consists of nine blocks:

- 1. Key partners.
- 2. Key types of activities.
- 3. Key values.
- 4. Relationships with clients.
- 5. Customer segments.
- 6. Cost structure.
- 7. Key resources.
- 8. Channels.
- 9. Revenue flows.

These blocks take into account the modern needs of implementing digital business transformations to a greater extent than in the previous model. In

general, the advantages of using the considered models are their simplicity (accessibility for understanding), complexity (consistency of structural elements) and visibility (the managers of all levels better perceive schemes).

Taking into account the positive experience in implementing the abovementioned business models, we consider it necessary to improve existing activity business models while implementing digital technologies at the domestic industrial enterprises. Without diminishing the importance of the Osterwalder and Pigneur's suggestions, we propose to supplement their model with the "Technology" block, which, in our opinion, is essential for the effectiveness of the company and cannot be added or considered within the existing blocks.

Let us consider the expanded model of Osterwalder & Pigneur by case study of digitalization of communication business processes of industrial enterprises (figure 1):

1) "Key partners" of enterprise business now include the software development companies;

2) "Key types of activities" include all fields where the digitalisation of business processes can take place:

- document management,
- management,
- marketing,
- finances,
- manufacturing,
- quality management,
- external communication, etc;

3) "Key values" except existing advantages include the following:

- quality communications,
- reduction in the duration of business processes (time saving),
- increasing the level of enterprise management efficiency
- reducing the influence of "human factor" on the communications

quality;

4) "Relationships with clients" should comply with modern requirements:

- on-line consultation "24/7",
- maintaining relationships with consumers using a wide range of

modern information and communication technology (including via mobile devices);

5) "Customer segments" can be expanded due to the markets globalization;

- 6) “Cost structure” expands due to the costs of:
 - new software,
 - new information and communication technology;
- 7) “Key resources” are used more effectively due to:
 - saving time on communications through automation and reducing the duration of business processes,
 - increase the efficiency of human resource involvement;
- 8) “Technologies” covers software (specialized software programs) and technological upgrading (implementation of the latest ICT);
- 9) “Channels” provide the expansion of the communication channels capacity, the use of modern communication channels with stakeholders;
- 10) “Revenue streams” are increasing due to accelerated sales by accelerating logistics and financial business operations.

Figure 1. Business model of digitalisation of communication business processes of industrial enterprises

Key partners	Key types of activities	Key values	Relationships with clients	Customer segments
software development companies	key business processes of the enterprise: -document management, -management, -marketing, -finances, -manufacturing, -quality management, -external communications	-quality communications , -reduction in the duration of business processes (time saving), - increasing the level of enterprise management efficiency , -reducing the influence of “human factor” on the communications quality	-on-line consultation “24/7”, -maintaining relationships with consumers using a wide range of modern information and communication technology (including via mobile devices)	are expanded due to the markets globalization

Cost structure	Key resources	Technologies (suggested by author)	Channels	Revenue streams
-costs of new software, - costs of new information and communication technology	-saving time on communications through automation and reducing the duration of business processes, -increase the efficiency of human resource involvement	software (specialized software programs), - technological upgrading (implementation of the latest ICT)	-expansion of the communication channels capacity, -the use of modern communication channels with stakeholders	- increasing the sales by accelerating logistics and financial business operations

Source: the Osterwalder & Pigneur's (2012) model improved by the author

The author's propositions allow expanding the scope of use of the Osterwalder & Pigneur's business model. In our opinion, the improved business model of digitalization of the communication business processes at industrial enterprises is quite general and therefore can be applied by business entities and other industries.

3. Software programs to ensure the implementation of automation of business processes of industrial enterprises.

One of the relevant areas of increasing the efficiency of industrial enterprises is the digitalization of business. As practice shows, automation of the processes of one department, with seven employees, saves approximately 1800-3600 working hours per year (Automation, 2020). In addition to saving resource costs, such innovations reduce the administrative burden, improve the quality of communication business processes and provide acceleration of the department as a whole.

We classified the available software programs (available for domestic producers) for the automation of the most common types of business processes of industrial enterprises in accordance with the key types of activities of business (table 1).

4. Conclusion and Recommendations

Thus, according to the results of the research, it is possible to conclude the following:

- analysis of the existing business models allowed to determine their advantages and disadvantages and justify the suggestions for improving the

Osterwalder and Pigneur’s business model in the context of implementing digital transformations into the activities of industrial enterprises;

- the Osterwalder & Pigneur’s business model was further developed in terms of expanding its structural elements and highlighting the “Technology” block, which allows to specify the business digitalization processes (which are necessary in modern business conditions), to present an integrated structure of interconnected components, and clearly demonstrate the directions and types of changes of the existing business model and more clearly define the competitive advantages of the enterprise in the market;

- the range of possible software products was determined to ensure the implementation of automation of business processes at the industrial enterprises.

The results of the research can be used in the activities of business entities for the improvement/development of business models as well as to become the basis for further methodological studies in the field of digital transformations of business.

Table 1. Types of business-processes of industrial enterprises and software programs for their automation

Type of activity	Types of business processes	Types of software programs
Document management	<ul style="list-style-type: none"> • registry and administrative office • document control • monitoring the execution of orders and instructions 	<ul style="list-style-type: none"> • BAS Document management CORP
Management	<ul style="list-style-type: none"> • economic and information security • work on legal issues • management of KPI • management accounting • budgeting and financial management • HR management • advanced training of staff • logistics 	<ul style="list-style-type: none"> • BAS Holding Management • BAS ERP • BAS Integrated Enterprise Management
Marketing	<ul style="list-style-type: none"> • marketing mix management • advertising management • sales management • customer relationship management 	<ul style="list-style-type: none"> • BAS Trade Management
Finances	<ul style="list-style-type: none"> • accounting 	<ul style="list-style-type: none"> • BAS Accounting

	<ul style="list-style-type: none"> • tax accounting • financial planning • invoice management with clients • payroll management • calculation of costs 	<ul style="list-style-type: none"> • BAS Accounting CORP
Manufacturing	<ul style="list-style-type: none"> • manufacturing processes management • stock management • supply chain management • managing production equipment 	<ul style="list-style-type: none"> • MES Operations management of enterprise
Quality management	<ul style="list-style-type: none"> • product quality control • business process quality management 	<ul style="list-style-type: none"> • PDM Engineering data management
External communications	<ul style="list-style-type: none"> • site management • attraction of new clients • interaction with branches • work in the PR field 	<ul style="list-style-type: none"> • BAS Trade Management • Integration module EDI – NETWORK

Source: compiled by author.

REFERENCES

- Zudbinova, T.Yu. (2014). *Business planning: the best way to prevent mistakes*. Rostov on Don. Phoenix. 237 p.
- The basics of entrepreneurship* (2017). Under editorship of N.P. Ivashchenko. M.: Prospekt. 336 p.
- Revutska, N.V. (2002) Theoretical aspects of the formation of a business model of an enterprise. *Strategy of economic development of Ukraine*. K. : KNEU. Issue 6 (13). pp. 232-235.
- Ryabykina, K.G. (2014). Business model as a mechanism for ensuring the effectiveness of enterprise capital management. *Global and national economic problems*. Issue 2. pp. 688-692.
- Sachynska, L.V. (2015). Features of the generation of a business model of the enterprise. *Economic sciences. Series "Accounting and Finance"*. Issue 12 (45). Vol. 2. pp.171-178.
- Anthony, S., Johnson, M., Sinfield, J. & Altman, E. (2018). *Disruptive Innovations. How to reach new consumers by simplifying and reducing the product cost*. M.: Alpina Publisher. <http://www.management.com.ua/books/view-books.php?id=2318>
- Skryl, V.V. (2016). Business models of the enterprise: evolution and classification. *Economics and society*. Issue № 7. pp. 490-497. http://economyandsociety.in.ua/journal/7_ukr/82.pdf

- Soolyate, A.Yu. (2010) *Business models of companies: definition, evolution, classification*. https://mkozloff.files.wordpress.com/2010/02/business_models_f_inexpert_09.pdf
- Strekalova, N.D. (2009). Business model concept: methodology of system analysis. *Proceedings of the Russian State Pedagogical University named after A. I. Herzen*. № 92. pp. 96-105.
- Frolova, L.V. & Kravchenko, Ye.S. (2012). *Formation of a business model of an enterprise*. K. : Tsentr uchebnoi literatury. 384 p.
- Slywotzky, A. (2006). *Value migration. What will be with business the day after tomorrow?* M: “Mann, Ivanov and Feber”. 432 p. <https://pqm-online.com/assets/files/lib/books/slivotsky2.pdf>
- Kim, W. Ch. & Mauborgne, R. (2005). *Blue ocean strategy*. M.: NIRRO. 272 p.
- Johnson, M. W., Christensen, C. M. & Kagermann, H. (2009). Reinventing Your Business Model. *Harvard Business Review*. №3. p. 63.
- Schweizer L. (2007). *Concept and evolution of the business models*. Ekovest. pp. 146-168. <http://www.research.by/webroot/delivery/files/2007n2r01.pdf>.
- Osterwalder, O. (2012). *Business models generation*. 2 edit. M.: Alpina Publisher. 288 p.
- Business Process Automation with RPA*. <https://www.eventbrite.com/e/rpa-tickets-91833599769?aff=erelexpmlt> (the date of request 06.03.2020)

DIGITALIZATION OF THE TOURISM INDUSTRY: PROBLEMS AND PROSPECTS

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Abstract

The article discusses the problems and prospects of the development of digitalization in the tourism industry in the Kyrgyz Republic. The analysis of the dynamics of gross value added and investment in fixed assets in the tourism sector in the Kyrgyz Republic, the number of payments made by credit cards in the Kyrgyz Republic, the number of POS-terminals, the number of Internet access points, ATMs in the Kyrgyz Republic for 2014-2018 years.

Keywords: *tourism, tourism services, digitalization, digital technologies, GDP in the field of tourism, fixed capital investment in tourism, Digital Kyrgyzstan Digital Transformation Concept, bank cards, POS terminal.*

JEL Code: *O11*

Relevance: Inadequate level of development of tourism digitalization in the Kyrgyz Republic, Increasing Tourism Development in Kyrgyzstan, Tourism development in the Kyrgyz Republic as part of the Great Silk Road.

The goal is to consider problems and suggest directions for the development of tourism digitalization in the Kyrgyz Republic

The topic of digitalization is very relevant today. Digitalization affects every person from the layman to the entrepreneur, scientific and political figure. Digitalization as a direction of economic development was also chosen by the President of the Kyrgyz Republic, who announced 2019 as the “Year of the Development of Regions and the Digitalization of Kyrgyzstan.” And today the Kyrgyz Republic is implementing the Digital Transformation Concept “Digital Kyrgyzstan” - 2019-2023, which gives direction to domestic tour companies - “tourism-related enterprises should become one of the first beneficiaries of building digital infrastructure and digital platforms”.

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The benefits of digitalization are obvious today. It, as a technology for the collection, storage, transmission, processing and analysis of information, helps accelerate all economic processes, especially on a global scale. In this regard, public administration can use digitalization to effectively control and regulate all socio-economic processes.

However, there are opinions that total digitalization is aimed at limiting human freedoms. “Order without freedom and freedom without order are equally destructive,” said Theodore Roosevelt (Quotes and phrases about freedom. <https://metodorf.ru/citati/svoboda.php> <https://cyberleninka.ru/article/n/tsifrovizatsiya-turizma-formy-proyavleniya/viewer>). “Necessity is blind until it becomes conscious. Freedom is an awareness of necessity,” Karl Marx wrote (Quotes and phrases about freedom. <https://metodorf.ru/citati/svoboda.php> <https://cyberleninka.ru/article/n/tsifrovizatsiya-turizma-formy-proyavleniya/viewer>).

A tourist’s freedom of movement should be accompanied by its safety, which depends on the introduction of modern technologies: the use of unmanned drones for assessing travel routes in hazardous areas, real-time weather analysis, placement of sensor systems, and a quick alert system will reduce the risks associated with natural phenomena and cataclysms, sudden changes in weather conditions, registration of individual tourist routes will help coordinate the work of rescue services.

Currently, in connection with the coronavirus pandemic, restrictions and sometimes the cessation of tourist flows cause inhibition and termination of travel agencies. Tourism carries the most damage. Basically, all transport links and tourist flows stopped, hotels and guest houses were empty, customers refused tours, countries restricted entry, airlines stopped selling tickets. But the need for travel and new experiences will not disappear. How quickly humanity can recover business processes after the global epidemiological crisis depends on the introduction and development of digital technologies.

Kyrgyzstan has great prospects for tourism development.

2018 - I place in the category “Developing Direction” (“Wanderlust”)

2019 - entered the list of the best places in the world for selfies (“Daily Mail”)

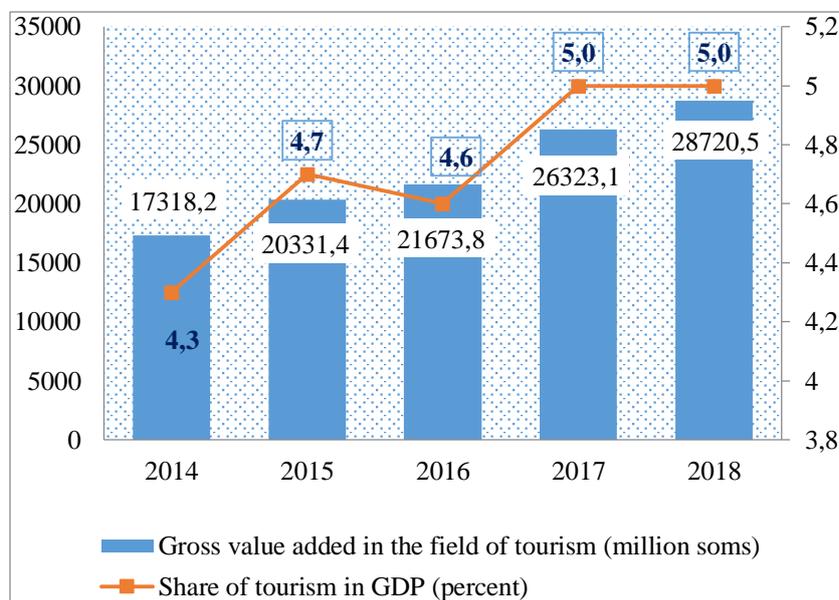
2019 - entered the TOP 10 best countries for travel (“Lonely Planet”)

2019 - entered the TOP 3 best countries for travel (“Forbes”)

- The best country for horseback riding

Tourism development in the Kyrgyz Republic is favored by unique natural resources, a favorable geographical location at the junction of the Great Silk Road, a wide variety of flora and fauna, hospitality of the Kyrgyz people and preserved authentic national traditions (Akylbekova, 2020). Moreover, tourism development has great potential due to its multiplier effect on other sectors of the economy and attractiveness for investors, especially foreign ones. However, the contribution of tourism to GDP in 2018 was only 5% compared to 4.3% in 2014 (Fig. 1) (www.stat.kg; Tourism in Kyrgyzstan, 2019; Tourism development indicators, <http://www.stat.kg/ru/statistics/turizm/>; Akylbekova, Kanatbekova, 2018; Akylbekova, Dzhumabaeva, Neevina, Ryskulova, 2020). At the same time, it can be stated that the gross value added in the tourism sector in 2018 increased to 28720.5 million soms, which is 65% more than in 2014, when it amounted to 17318.2 million soms (<http://www.stat.kg>; Tourism in Kyrgyzstan, 2019; Tourism development indicators, <http://www.stat.kg/ru/statistics/turizm/>; Akylbekova, Kanatbekova, 2018; Akylbekova, 2020) (Fig. 1).

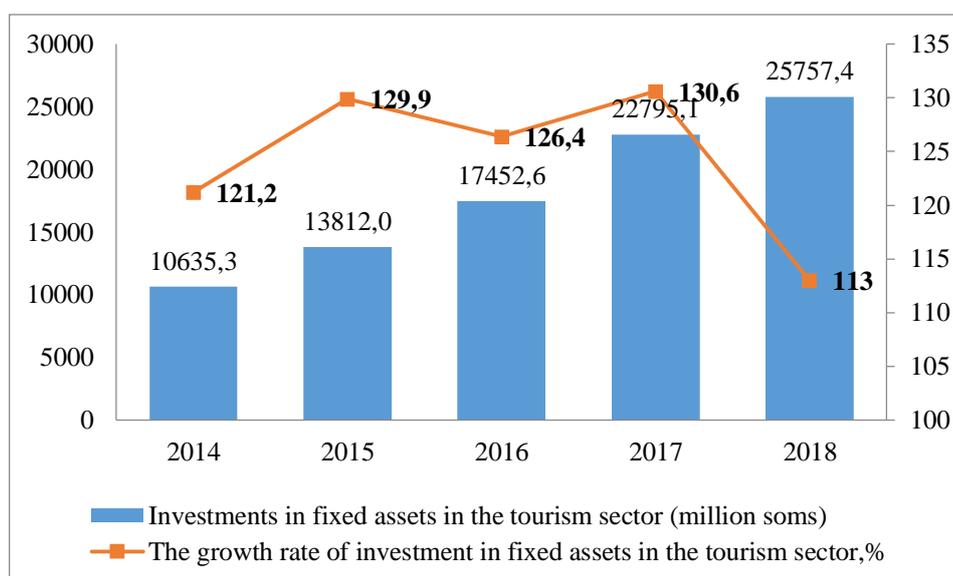
Fig. 1. Dynamics of gross value added in the field of tourism in the Kyrgyz Republic



Source: www.stat.kg/ru/statistics/turizm/

The prospect of tourism development is provided by the growth of investments in fixed assets, as they increased by 2.4 times, amounting to KGS 25,757.4 million in 2018 compared to KGS 10,635.3 million in 2014. However, their growth rates in 2018 decreased compared to the previous five-year period, amounting to 113% in 2018 against 130.6 in 2017 and 121.2% in 2014 (www.stat.kg; Tourism in Kyrgyzstan, 2019; Tourism development indicators, <http://www.stat.kg/ru/statistics/turizm/>; Akyzbekova, Dzhumabaeva, Neevina, Ryskulova, 2020) (see. fig. 2).

Fig. 2. Dynamics of investment in fixed assets in the tourism sector in the Kyrgyz Republic



Source: www.stat.kg/ru/statistics/turizm/

Thus, investment in tourism provides the basis for the development of the industry (Akyzbekova, Kanatbekova, 2018, January).

In addition to investment, a significant role in the development of tourism and the entire economy is played by modern information technologies. (The concept of digital transformation “Digital Kyrgyzstan” 2019-2023. Akyzbekova, Dzhumabaeva, Neevina, Ryskulova, 2020; The National Development Strategy of the Kyrgyz Republic for 2018-2040).

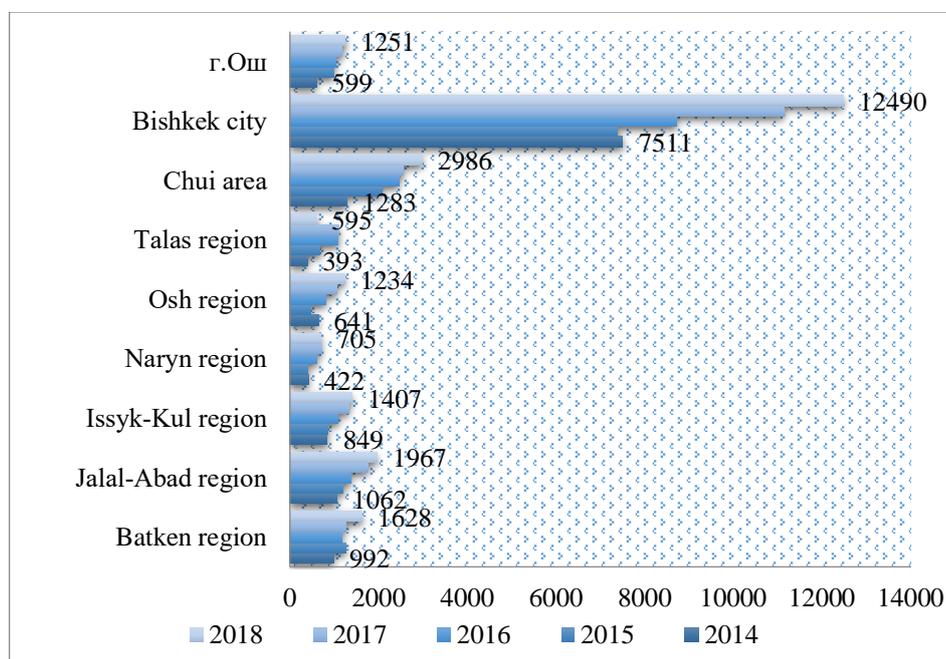
In the digital age, the most important factor in a successful tourism business is Internet access. Internet access at every point of the tourist route is a

requirement of a modern tourist to maintain business and personal communications. However, access to the Internet in our republic is not provided in all regions.

An analysis of the dynamics of the number of Internet access points across the Kyrgyz Republic showed their growth. So in the city of Bishkek for 2014-2018, their growth amounted to 66.3%. Moreover, their number in the city of Bishkek is 20 times more than in the Talas region, 17 times more than in the Naryn region and 10 times more than in the Osh region (www.stat.kg; Tourism in Kyrgyzstan, 2019; Akyzbekova, Bayguttiev, Bobakanova, 2019, December; Akyzbekova, 2020, April) (Fig. 3).

Thus, the regions are poorly provided with the Internet, which is an obstacle to attracting tourists. Bridging the digital divide between regions will increase the accessibility to digital technologies of tourists and entrepreneurs from remote areas to expand tourism services (The concept of digital transformation “Digital Kyrgyzstan” 2019-2023).

Fig. 3. Dynamics of the number of Internet access points throughout the Kyrgyz Republic for 2014-2018, units

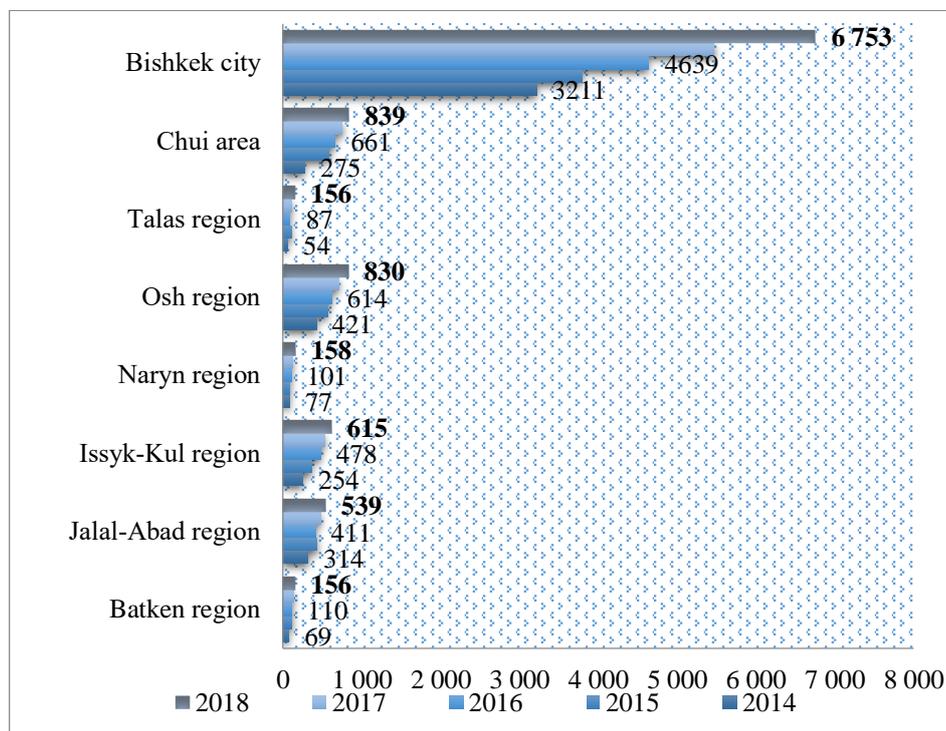


Source: www.stat.kg/ru/statistics/turizm/

The Internet is also important for the safety of tourists. The safety of tourists is based on the formation of a system for registering and tracking tourists on routes, which is not yet applied in our republic, and which can be created on the basis of digital technologies.

The use of cashless payments is another significant factor in the quality of tourist services and ensuring their safety. The number of POS terminals for 2014-2018 has grown significantly. So, in the city of Bishkek for 2014-2018, their number has more than doubled. However, in 2018 in Bishkek, the number of POS-terminals is many times greater than in the regions of the country. So, in comparison with Talas, Batken and Naryn regions, the number of POS terminals in Bishkek is 43 times higher (see Fig. 4) (www.stat.kg; Tourism in Kyrgyzstan, 2019; Tourism development indicators,; Akylbekova, Bayguttiev, Bobakanova, 2019, December). Thus, it is necessary to introduce POS-terminals in the regions, since it is there that the main flows of tourists go.

Fig. 4. Dynamics of the number of POS-terminals on the territory of the Kyrgyz Republic for 2014-2018, units

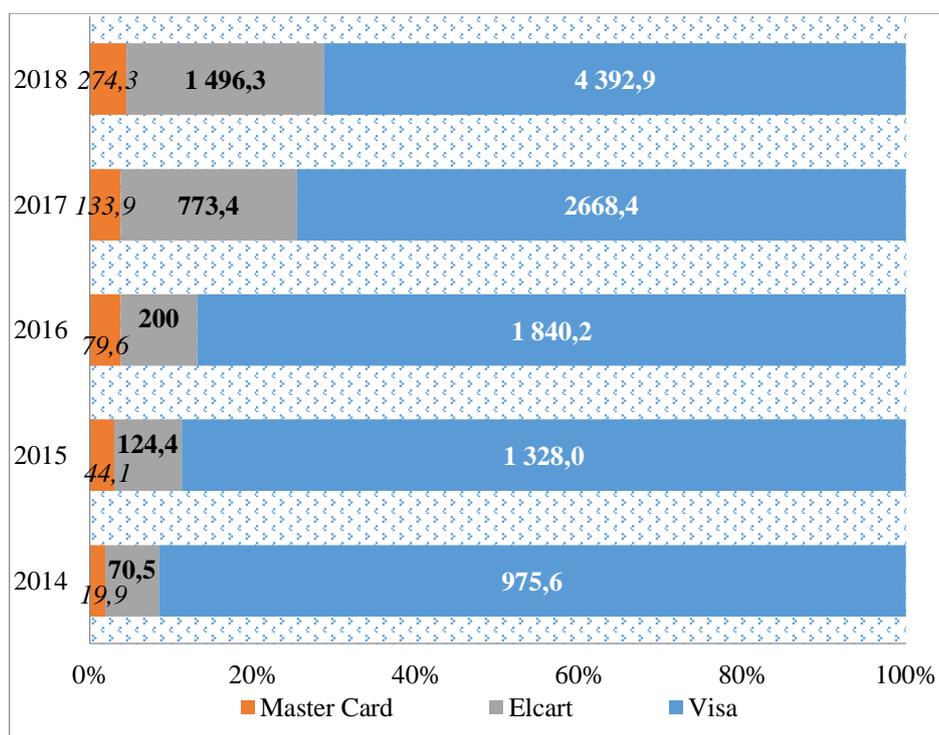


Source: www.stat.kg/ru/statistics/turizm/

An important aspect of tourist services is electronic payments for goods and services. Currently, the development of the banking system is at such a level that it can provide Internet banking, mobile banking and electronic wallet. The republic has a large number of ATMs, where tourists can use international payment cards.

The most popular and widespread payment card is Visa, the number of transactions on which increased by more than 4.5 times during 2014-2018 and amounted to 4,392.9 thousand transactions in 2018. While the number of transactions on the Master Card, although it increased by 13.8 times, in 2018 it amounted to only 274.3 thousand transactions (Fig. 5) (www.stat.kg; Akylbekova, Bayguttiev, Bobakanova, 2019, December; Akylbekova, 2020, April).

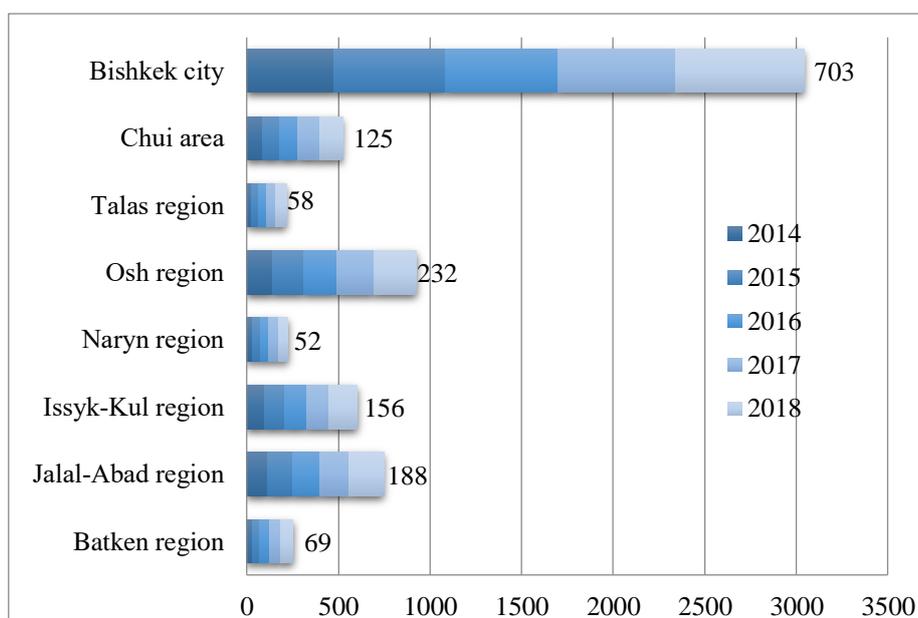
Fig. 5. Dynamics of the number of payments made by bank cards in the Kyrgyz Republic for 2014-2018, thousand transactions



Source: www.stat.kg/ru/statistics/turizm/

An analysis of the dynamics of the number of ATMs for 2014-2018 showed their significant growth. So, in the republic as a whole, their number in 2018 amounted to 1583 units against 998 units in 2014, or an increase of 58.6%. Moreover, in Osh oblast in 2018 their number was 3 times, in Jalal-Abad oblast 3.7 times, in Chui oblast 5.6 times, in Issyk-Kul oblast 4.5 times, in Talas oblast 12.1 times less than in Bishkek (Fig. 5) (www.stat.kg).

Fig. 6. Dynamics of the number of ATMs in the territory of the Kyrgyz Republic for 2014-2018, units



Source: www.stat.kg/ru/statistics/turizm/

The restoration of tourism after the expected crisis today should be ensured by planned actions, both by individual entrepreneurs and government agencies. Digital technologies should be actively introduced into the system of ensuring the safety of tourists, especially mountain and extreme. Planning tours, providing complete information about them, about living conditions, climatic features of Kyrgyzstan, a system of quick alerts about weather changes and emergencies will reduce the risks of tourists and increase the attractiveness of the

country for tourists (The concept of digital transformation “Digital Kyrgyzstan” 2019-2023).

Among the main problems of tourism development should be noted:

- insufficiently developed communication and transport network that does not meet the requirements of a modern tourist;

- insufficient level of use of digital technologies in ensuring security and insurance when organizing tourism activities, which also negatively affects the influx of foreign tourists into Kyrgyzstan;

- poor development of rural tourism and its digitalization;

- weak marketing and inadequate use of digital technology in event tourism

- the lack of highly qualified specialists in the information support of the tourism business, etc. (Akyzbekova, Neevina, Kanatbekova, 2019; Akyzbekova, Kanatbekova, 2017; Akyzbekova, Neevina, 2018; Akyzbekova, Neevina, 2019).

The National Development Strategy of the Kyrgyz Republic for 2018-2040 noted that it is necessary to develop infrastructure using universal digitalization to realize the country's competitive advantages (The National Development Strategy of the Kyrgyz Republic for 2018-2040).

In order to accelerate the development of tourism in the Kyrgyz Republic, special attention should be paid to:

– ensuring the high quality of individual digital tourist services through informational support from tour planning to its implementation,

– ubiquitous provision of high-speed Internet access;

– increase the level of safety and life insurance, health and property of tourists using digital technologies;

– activities to promote the national tourism product of the Kyrgyz Republic in the global and regional tourism markets using Internet marketing, re-analyzing advertising offers;

– the formation of online stores of tourism products and travel services;

– improving transport services for tourists using transport payment cards;

– the development of electronic payments in the regions, an increase in the number of ATMs, POS-terminals, regional bank branches;

– the development of digitalization in the regions and others (Akyzbekova, Kanatbekova, 2017; Akyzbekova, Bulanbek, Mambetalieva, 2019; Akyzbekova, Neevina, 2019; Akyzbekova, 2020, April).

In conclusion, the impact of digitalization on freedom can be summarized in the words of Stephen Covey: “Each person has four abilities - self-knowledge,

conscience, independent will and creative imagination. This gives us absolute human freedom” (Quotes and phrases about freedom. <https://metodorf.ru/citati/svoboda.php> <https://cyberleninka.ru/article/n/tsifrovizatsiya-turizma-formy-proyavleniya/viewer>), which should be used by entrepreneurs in the tourism sector.

REFERENCES

- Akylbekova, N.I., Kanatbekova, S.K. (2018, January). Investments - the most important factor in the development of tourism. *In International scientific-practical correspondence conference "Innovative approaches to the development of the economy, management and marketing"*, pp. 32-36
- Akylbekova, N.I., Neevina, E.A. (2018). The concept of sustainable development of tourism as a direction of its development in the Kyrgyz Republic. *Economics. Control. Education*, 4 (007), pp. 78-83
- Akylbekova, N.I., Kanatbekova, S.K. (2017). Some issues of tourism development in the Kyrgyz Republic. *Economics. Control. Education*, 2(005), pp. 18-22
- Akylbekova, N.I., Neevina, E.A. (2019). Problems and prospects of tourism development in the Kyrgyz Republic. *Bulletin of KSU named after Isa Arabaev*, 4, pp. 115-120
- Akylbekova, N.I., Neevina, E.A., Kanatbekova, S.K. (2019). Problems of development of youth tourism in Kyrgyzstan. *Economics. Control. Education*, 1(008), pp. 10-18
- Akylbekova, N.I., Dzhumabaeva M.Z., Neevina, E.A., Ryskulova, M.K. (2020). The role of tourism in the development of the economy of the Kyrgyz Republic. *In XVIII International scientific and practical Conference of students, graduate students, scientists, teachers and practitioners "Innovative processes in science and technology of the XXI century"*. Nizhnevartovsk. 2020
- Akylbekova, N.I., Bulanbek, kyzy S., Mambetalieva, E. (2019). Insurance in tourism. *Economics. Control. Education*, 1(008), pp. 10-17
- Akylbekova, N.I. (2020, April). Digitalization as an innovative direction in the development of the tourism industry national team. *In International scientific-practical conference "The intellectual potential of the educational organization and the socio-economic development of the region"*. Yaroslavl
- Akylbekova, N.I., Bayguttiev, S.S., Bobakanova, A.K. (2019, December). Electronic payments as the core system component of the development of the financial sector of Kyrgyzstan. *Eurasian Scientific Association*, 12(58), pp. 187-191

Tourism development indicators. National Statistical Committee of the Kyrgyz Republic. <http://www.stat.kg/ru/statistics/turizm/>

The concept of digital transformation “Digital Kyrgyzstan” 2019-2023. <http://ict.gov.kg/index.php?cid=27&r=site%2Fsanarip>

The official website of the National Statistical Committee of the Kyrgyz Republic. [http:// www.stat.kg](http://www.stat.kg)

The National Development Strategy of the Kyrgyz Republic for 2018-2040. http://www.gov.kg/?page_id=125892&lang=en

Tourism in Kyrgyzstan. (2019). Statistical Digest. National Statistical Committee of the Kyrgyz Republic

Quotes and phrases about freedom. <https://metodorf.ru/citati/svoboda.php>

<https://cyberleninka.ru/article/n/tsifrovizatsiya-turizma-formy-proyavleniya/viewer>

APPLICATION OF BLOCKCHAIN IN BANKING COMPLIANCE ACTIVITY

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Abstract

Introduction and penetration of blockchain based technologies alongside with the appearance of cryptocurrencies gave financial sector not only a strong competitor in the face of different fintech alternatives but also a powerful possibility for response to complex and burdening present-day regulatory environment. The article examines possible applications of distributed ledger technology for the needs of modern banking compliance. The study emphasizes that this innovation could be treated as a factor that inevitably changes the way modern banks respond the expectations of surrounding regulatory framework. On the basis of presented facts and analysis are proposed several assumptions for future integration of blockchain technologies into banking compliance activities in shorter and longer term.

Keywords: *blockchain, banking, compliance, financial regulations*

JEL Codes: *G21, K20, O30*

1. Introduction

It will not be exaggerated if we characterize last decade as disruptive for credit institutions in the face of rising regulatory compliance requirements and competition from alternative providers of financial services. Appearance of new players like fintechs, providing new low-cost possibilities in the field of payments, lending, saving, investments and etc., makes banks encounter radically different type of market environment and urges them to rethink their traditional stereotypes regarding business models and product distribution channels. Meanwhile regulatory burden following global financial crisis of 2007-2008 continues to increase biting more and more significant shares from their incomes. Introduction of regulations like Basel 3, AMLD 4 and 5, GDPR, IFRS 9, PSD 2 requires additional expertise and resources in this regard.

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Meanwhile imposed sanctions for different cases of non-compliance cost global banking community trillions of dollars. Following these trends banks have little choices but to embrace new technological innovations. By outsourcing activities to specialized RegTech firms or developing their own high tech compliance solutions, they change traditional conservative approaches for complying with regulatory requirements and attract the smart arsenal of artificial intelligence, big data and blockchain technologies. At the same time global supervisors appeal for testing the potential of these modern technologies for regulatory purposes. And first results are already a fact – Monetary Authority of Singapore and Bank of Canada report for a successful experiment of cross-border and cross-currency payments, using central bank digital currencies based on the blockchain technology (Monetary Authority of Singapore, 2019). Another example is the implemented and launched in October 2018 by the Hong Kong Monetary Authority blockchain-based trade finance platform (Hong Kong Monetary Authority, 2019).

The research focuses on the potential benefits of attracting the blockchain technology into banking compliance toolkit and more precisely in customer identification activities for the purposes of anti-money laundering, counter terrorist financing and for prevention of other financial crimes and violations. The study aims to clarify arguments supporting the thesis that distributed ledger technology (DLT) inevitably changes the way modern banks respond the expectations of surrounding regulatory environment.

In the text below blockchain is treated as disruptive technology that creates new opportunities in vast areas of finance and banking, as well as in the area of ensuring strong know your customer (KYC) and customer due diligence (CDD) policies. Based on the interpretation of facts and analysis below, there are drawn several conclusions outlining the future acceptance of the distributed ledger technology for the needs of banking compliance in shorter and longer term.

2. Blockchain as a disruptive innovation

Appearance of the blockchain technology could be linked with the introduction of cryptocurrencies, and more specifically Bitcoin in 2009. In short, how exactly this technology works and why it conceptually differs from conventional database structures². Blockchain is based on the distributed ledger technology (DLT) made up of interconnected batches (blocks) containing

² Traditional databases models are centralized – where information is stored on a single location, and decentralized – where it is placed on different connected locations.

information for each individual database entry. It appears to be an upgraded type of distributed storage of data where information is encrypted and distributed among all participants in the network according to the rules integrated into the ledger. An identical copy of this register is available for all participants in the system, each change in it is signed (hashed) with a cryptographic key and leads to the generation of a new block in the chain. Every new block contains information about the previous ones, which guarantees protection against data manipulation.

In addition, the creation of new blocks should be validated by solving a complex mathematical algorithm from the computer systems of all peer-to-peer participants in the respective blockchain network. One of the most significant advantages of a blockchain architecture is that it does not allow retroactive changes in the database. In short, it is a shared database storing encrypted information and where all changes are available only after the approval (consensus) by all participants in the system (Valkanov, 2019a., pp. 192-193).

As far as technological aspects of DLT remain out of the focus of this research, it is important to highlight some of its applications in the financial industry apart from the cryptocurrencies³.

DLT-based payment systems. Their appearance could be directly connected with cryptocurrencies but the potential of the innovative technology quickly spreads across the financial industry. Except the example from Singapore, mentioned above, we could highlight the Santander One Pay FX system, allowing customers of Spanish Banco Santander to make international payments between individuals up to £10 000 a day. Swiss UBS together with 14 global banks is also developing a crypto-based payment mechanism for settlement of cross-border trades⁴. It is doubtless banks see the potential of real-time, secure and

³ It is too early to say if and when cryptocurrencies will become an alternative to conventional money. As at the end of 2019 different regulators apply separate approaches – cryptocurrencies are legalized and treated favorably in countries and jurisdictions like USA, Canada, Japan, Australia, Hong Kong, European Union, while in some countries their usage is restricted (for example China and Russia). Meanwhile cryptocurrencies remain highly vulnerable to cybercrime and fraud. According to Ciphertrace 2019 Q2 report, “outright thefts as well as scams and other misappropriation of funds from cryptocurrency users and exchanges cryptocurrencies amount approximately \$4.26 billion” (Ciphertrace, 2019, p. 4).

⁴ Barclays PLC, Nasdaq Inc., Credit Suisse Group AG, Bank of New York Mellon Corp., Canadian Imperial Bank of Commerce, State Street Bank & Trust Co., Banco Santander SA, Commerzbank AG, ING Groep NV, KBC Group NV, Lloyds Banking Group PLC, Mitsubishi UFG Financial Group Inc. and Sumitomo Mitsui Banking Corp. – see: PMNTS (2019).

significantly cheaper alternative of traditional wire transfers. According to Accenture survey, 90% of 32 global commercial banks are exploring the benefits of blockchain technology in the area of payments (Accenture, 2016, p. 3). Leading use cases that have been explored are connected with intra-bank cross-border operations, cross-border remittances and corporate payments (Accenture, 2016, p. 5). SWIFT also does not stay back in the race. In 2019 the company declares its plans to use blockchain, enabling payments on DLT-based trade platforms to be initiated within trade workflows and automatically passed on to the banking system (SWIFT, 2019).

Smart contracts. According to definition of Investopedia, smart contracts are self-executing contracts with the terms of the agreement written into computer code, existing across a distributed, decentralized blockchain network (Investopedia, 2019). The most significant advantage of smart contracts is their traceability and irreversibility due to the distributed ledger they are based on. Today smart contracts meet wide acceptance among different businesses.

International trade. Blockchain based platform We.trade, developed by Belgian banking group KBC for small and medium business customers is a good example for the embrace between DLT and banking industry. The platform facilitates international trade by digitalization of the whole documentary credit process allowing the buyer to generate an electronic order form, which to be accepted by the vendor and after that follows a generation of smart contract setting out the payment terms. The project is supported by seven other EU banking groups - Banco Santander, Deutsche Bank, HSBC, Natixis, Rabobank, Société Générale and UniCredit.⁵ Similar applications of DLT for the needs for international trade are due to gain more and more popularity upgrading classical international trade instruments like letters of credit, bills of lading, bill of exchange and etc.

Funds raising and lending. Another direction in which DLT develops rapidly during last years is connected with the funds raising platforms. Initial Coin Offering (ICO) gained popularity following the boom of cryptocurrencies. Now ICO is fast growing fundraising mechanism for financing of new projects. Investors receive crypto tokens in exchange for other cryptocurrencies⁶. Some

⁵ See KBC (2019).

⁶ The blockchain token is a digital representation of a real tradeable asset, created during the process of ICO. When speaking about creation of virtual securities, sometimes the term *security token offering (STO)* is used in order to distinguish it from other types of ICOs, connected with creation of different types of tokens – payment, equity or utility (Laurent et. al., 2018, p. 63).

analysts (Hurder, 2018; Laurent et. al., 2018) even point a process of tokenization of economy (or “token economy”) in near future. In practice ICO represents a flexible similarity of traditional Initial Public Offerings, standing still outside the scope of regulations⁷.

DLT could also be found in the innovative crowdlending process. The technology is adapted in some platforms for peer-to-peer (P2P) lending, granting loans in cryptocurrencies⁸, as well as in combination between crypto and conventional currencies⁹.

Another example for DLT-based financing instrument are the Contingent convertible bonds (CoCo bonds). Similar to hybrid securities, they represent a tokenized bond instruments combining features of equity and debt. Like regular bonds, investors gain dividends but just after crossing a defined threshold, the bond converts to equity, saving issuers both the cost of the remaining coupons and the need to repay the security (Deloitte, 2016, p. 12).

Serving the unbanked. Different estimations show around one third of world population being unbanked or underbanked (Accenture, 2015, p. 7). Even in worlds` largest economy – USA, number of unbanked Americans amounts to 15.6 million, while 51.1 million US adults are underbanked (Mire, 2018a). All this suggest the potential of different DLT-based solutions executing basic financial operations – transfers, lending, insurance. Modern smartphones provide all necessary technical requirements for mobile banking, storing of mobile wallets and participation in DLT networks – secure biometrical identification, near field communication (NFC) chips for contactless payments and enough computing power to access DLT networks. Moreover, the number of mobile phone users is predicted to rise globally over 7 billion in 2021 which prevails significantly the number of banked population¹⁰.

3. Blockchain for compliance issues

⁷ In this regard US Securities and Exchange Commission issued a statement declaring that while “these digital assets and the technology behind them may present a new and efficient means for carrying out financial transactions, they also bring increased risk of fraud and manipulation because the markets for these assets are less regulated than traditional capital markets” – see SEC (2019).

⁸ <https://saltlending.com>; <https://ethlend.io>.

⁹ <https://coinloan.io>; <https://blockfi.com>; <https://www.myconstant.com>; <https://ampleinvest.com>.

¹⁰ See: <https://www.statista.com/statistics/218984/number-of-global-mobile-users-since-2010>

As pointed in brief, applications of DLT show a great potential for future development and a possible “upgrade” of the architecture of financial instruments and infrastructure. The compliance field is no exception to this trend. Circumstances like that more than 200 financial regulations are being updated on daily basis, the compliance staff in large banking groups constantly rises and the adequate response to present day regulations is a serious challenge to financial institutions (Valkanov 2019a, pp. 50-51), prove the opinion that new stricter and complex regulatory environment requires a conceptually new approach by the side of banking institutions. And the technology of distributed ledger is namely that cornerstone showing the direction of future development in the field of bank regulation. Furthermore, DLT gives bilateral opportunities when speaking about interaction between supervisors and supervised institutions. More precisely here we can point following three types of mutual benefits:

- 1) *Individual benefits*, expressing in improved and reliable toolkit for preparation of different compliance task by separate credit institutions. Examples for such tasks are: customer identification, monitoring of operations, authorization and verification of customer profiles, and etc.
- 2) Benefits for *financial supervisors* by obtaining the possibility to create shared and secure databases containing negative information, sanctions and embargo lists and etc., as well as the opportunity to spread updated information in real-time regime to banking compliance filters (Stavrova and Valkanov, 2018, pp. 28-30).
- 3) Benefits for *financial sector* –manipulation of DLT databases is possible only after consent, they are secure and changes in them are irreversible, which creates the possibility for sharing information between all participants in the sector.

DLT follows introduction of two other major innovative technologies in the field of compliance – *big data* (BD) and *artificial intelligence* (AI). Their integration is becoming more common in different KYC / CDD tasks related with customers onboarding, data analyses and finding relations in databases, ensuring business continuity, regulatory reporting and etc. In general, these activities could be summarized in following directions: 1) *collection of data* (transformation of analog information in digital; voice and speech recognition); 2) *data analysis* (data mining; analogical reasoning; rules-based expert systems); 3) *machine learning* (self-learning and deep learning); 4) *speech processing* (analysis of human speech; automated voice reactions; conversion of speech into text); 5) *business continuity* (accidents management; evaluation of business processes); 6) *automated processes and robotization* (monitoring of operations; automated

verification of customer profiles; check-up of databases; finding anomalies; reporting)¹¹.

In the light of this DLT supplements tools, using BD and AI, could be considered as a peculiar technological basis for transition to basically new approach for ensuring effective compliance function in banks referred in some researches as compliance 2.0. This new approach could be considered as coordinator between different policies in the fields of security and risk management (Valkanov, 2019a, p. 165). The need for such high-tech compliance is ubiquitous but especially crucial for so-called “neobanks” – digital banking institutions without physical branches, providing their services entirely throughout virtual platforms¹². Their positioning as providers of financial services is constantly growing during last years. Offering cheaper prices, especially for money transfer services and having in mind their minimal operational costs, the potential of such fintech companies for gaining new market shares from traditional credit institutions is out of doubt.

And here comes the challenge with the provisioning of adequate customer identification. Commonly used techniques for remote customer identification used by such digital banks include:

- request for a picture from valid identification document (national ID card or international passport) in high resolution;
- face capture with the camera of PC or mobile device;
- online video chat (via Skype or other software) between customer and bank`s employee;
- verification of collected data from different registers and databases.

Following the marked above identification mechanisms, effective ID management could be pointed as a factor of critical importance for responding present day compliance requirements. In this respect can be brought out and developed the potential of DLT. In that sense of thought, it is not unexpected to claim that one of the most significant benefits of blockchain in the financial industry is the automation of the KYC process (Petrov, 2018, p. 25). The strength of DLT for the needs of compliance could be sought in three directions.

First is the possibility for *provision of reliable customer information*. Nowadays data veracity is a matter of primary concern not only form banks, but for financial sector and its regulators themselves. Something more, according to some opinions (Dentos, 2019) existing KYC processes contain certain

¹¹ See: Valkanov (2019a), pp. 207-208.

¹² Examples here are fintechs like Paysera, Transferwise, Monzo, Revolut, Atom Bank, Tinkoff.

inefficiencies like: information asymmetries between financial institutions and regulators; duplication compliance work and disproportionate amount of time and resources on manually validating and coordinating the completion and reconciliation of different KYC documentation, as opposed to assessing client risk.

Significant security level, possible due to the irreversibility of operations, transparency, as well as the need for consensus for each database entry change solve existing problems of sharing data.

Traditionally for the needs of their KYC / CDD operations, banks rely on following two types of databases:

- internal private databases containing negative customer information (black lists);
- external public databases with information from governments, regulators and other authorities¹³.

Maintenance of different databases for the need of KYC/CDD by single banking institutions is not only bulky and expensive, but most important is the risk of loss of information due to technical reasons, negligence or by intention. This situation changes dramatically when using unified common databases maintained by regulators (Valkanov, 2019c, p. 23). Such ledgers can consolidate information from different public and private sources under the supervision and rights management of the regulatory agency. The idea for sharing the customers` database with supervisory agency may also be proposed.

Interesting is one experiment made in 2017 by KPMG in Singapore, fintech company Bluzelle Networks, three banks operating in Singapore (HSBC, OCBC, Mitsubishi UFJ Financial Group) and the Singaporean regulator IMDA for developing a proof-of-concept KYC utility on a blockchain platform. The enterprise aimed to test the technical aspects of a blockchain KYC platform and more precisely its functionality, security, and scalability. The experiment passed test scenarios defined by Singapore`s financial regulator (MAS) and during the tests platform remained stable and responsive even at a high volume of information flow. Test results proved its performance was strong, with transaction times remaining swift even as transaction concurrency and complexity increased; used data remained secure and confidential, with access

¹³ See for example the Sanctions list of the US Office of Foreign Assets Control (<https://sanctionssearch.ofac.treas.gov>) and the Consolidated list of persons, groups and entities subject to EU financial sanctions (<https://data.europa.eu/euodp/bg/data/dataset/consolidated-list-of-persons-groups-and-entities-subject-to-eu-financial-sanctions>).

limited only to those with the correct authentication codes; platform resisted tampering by third parties and last but not the least, potential cost savings were estimated to be between 25 and 50 percent by reducing duplication and providing a clear audit trail (Maguire et al. 2018, p. 4).

Second, *sharing of databases* with other financial institutions, as well with supervisors. According some points of view (Auer, 2019) DLT could facilitate financial institutions not only to gain advantages in customer identification process but allow effective interactive communication inside the bank (as part of internal risk management), as well as with external regulators and authorities. Using blockchain instruments like smart contracts, Merkle (hash) trees, homomorphic encryption and etc. enable the possibility banks to define individual for each regulator and authority access rights and thus to share only required data complying with data protection requirements (Auer, 2019, p. 13).

Sharing databases via DLT could also be considered as an attempt to reduce financial frauds. Large number of so-called white collar crimes and misconduct behavior connects with data breaches and manipulation due to unauthorized access to accounting and information systems. A vivid example here is the unauthorized transactions of Société Générale's trader Jerome Kerviel in 2008 causing a €5 billion loss to the bank. Secure DLT can facilitate regulators' confidence they receive a trustworthy data and a connected platform allows them observe real-time updates eliminating lags in reporting and thence time for data manipulation (Mire, 2018b). Another successful proof-of-concept for sharing KYC/CDD data is the completion of the mutual project between Deutsche Bank, HSBC, Mitsubishi UFJ Financial Group (MUFG), Treasuries of Cargill and IBM. In 2017 the consortium demonstrated the abilities of a platform that provides banks a secure, decentralized and efficient mechanism for collecting, validating, storing, sharing, and refreshing of trusted KYC information of corporate customers (Fintechnews, 2018).

Third game changing direction comes as a direct consequence of databases sharing. It expressing in the possibility to *embed blockchain mechanism* in existing products and services. The aim is to improve traceability of complex financial transactions for the needs of anti-money laundering and contra terrorist financing. Example here are complex transactions connected with trade finance. Namely money laundering through trade finance appears to be one of most complex and actual scheme for disguising the origin of illegal funds¹⁴. And here

¹⁴Trade based money laundering schemes use legitimate trading activities as a screen for laundering capitals with illegal origin. Usage of complex documentary financial instruments in international trade creates favorable conditions for the inflow of illegal

again as examples can be cited recent initiatives of monetary authorities in Hong Kong and Singapore who in 2018 launched the Global Trade Connectivity Network – a cross-border infrastructure based on distributed ledger technology that comprehensively digitises trade finance transactions between the two jurisdictions. (Monetary Authority of Singapore, 2017).

Embedding DLT in different products and services – e.g. payments, forex, trading, securities, derivatives, is a revolutionary technological innovation with the rank of game changer in the ease of administration and quality of regulatory oversight and compliance (Mire, 2018b).

4. Scenarios for future development

After highlighting some general trends and examples for DLT penetration in different compliance related areas, we could summarize several trends for future development of the collaboration between blockchain technological innovations and banking compliance. Conditionally and without claiming exhaustiveness, these trends could be categorized in shorter and longer period.

Following trends could be outlined in *short term*.

1) Expanding the existing *collaboration between banks and with RegTech and SupTech companies*. According to some opinions (Mesropyan, 2018) financial services institutions achieve leverage effect by their cooperation with RegTech and SupTech firms in the field of compliance¹⁵. Applying distributed ledger technology enables process efficiencies and resource optimization.

2) *Sharing of compliance activities*. As mentioned above, directions for sharing compliance activities could be inside bank institution (disseminating the realization of the compliance function across the whole organization together with the overall risk management policy), among the financial sector (by sharing information and creating common distributed databases with other participants) and with regulators (via DLT-based two-way real-time data sharing mechanism).

3) Increasing the *automation and robotisation of operations and processes*. Data sharing and aggregation, data-driven insights generation, platform development, cloud computing and blockchain-based platforms for compliance,

capital and its subsequent legalization through fictitious trading operations. For more money laundering schemes and their counteraction see: Valkanov (2019b), pp. 42-64.

¹⁵ *Regulatory Technology* (RegTech) and *Supervisory Technology* (SupTech) firms represent two significant branches of the fintech industry. For less than a decade, their presence as providers of regulatory expertise changed dramatically the traditional landscape for interaction between banks and regulators. The possibility for outsourcing different compliance tasks to the tech firms bank can be considered as opportunity for cost optimization, especially in time of constantly increasing regulatory costs.

and on-demand compliance expertise are some examples in this direction (Mesropyan, 2018). In addition to currently applied AI-based instruments for speech and text recognition, data manipulation, case-based reasoning, machine and deep learning and etc. DLT positions as integral part of modern high tech compliance. It can be predicted that banks` investments in technological solutions combining blockchain, big data manipulation, cloud computing and artificial intelligence will continue to grow in the coming years¹⁶.

In *longer term* we could predict following tendencies.

1) *Fully automation of daily compliance activities*. Even now dominant part of compliance tasks relies on different platforms and computer technologies. It is obvious this trend will remain and continue to expand. Establishment of automated interaction channels “bank – customers”, “bank – financial sector” and “bank – regulator” could be expected in not so far future.

2) *Compliance as a Platform*. Following the tendency for imposition and transition to the platform model in modern economy (“software as a service“, “data as a service“, “infrastructure as a service“ and etc.) modern compliance is far beyond from its previous statute of ordinary performer of regulatory tasks. Numerous activities falling in the scope of present compliance competences (anti-money laundering, counter terrorist financing, prevention of financial crimes and financial misconduct, business continuity, as well as counteraction to all nonfinancial risks) predetermine its future development based on the platform concept – an unitary compliance function with omnipresence all across organizational structure¹⁷.

3) *Complete redesign of banking compliance activities*. Mentioned above development trends are feasible in parallel with the assumption for total redesign of compliance activities – from different routine tasks to competencies on strategic level, connected with the establishment of the compliance function and the organization of the respective structure.

4) *Roboregulators*. Different SupTech initiatives, undertaken by some regulatory agencies represent only a signal for future switching to fully automated supervision. This vision connects with regulatory framework having the ability to provide automated compliance solutions. Except significant cost reduction,

¹⁶ According to some estimations investments in RegTech industry rise with 48% each year and expectations are their volume in 2022 to rose above \$76 billion per year. Alongside investments of financial industry and especially banks in different RegTech initiatives are expected to rise steadily as well – see Valkanov (2019a), p. 179.

¹⁷ The concept for Compliance as Platform (CaaP) model is presented in Valkanov (2019a).

establishment of fully automated regulators (robo regulators) could be associated with better integrity, objectivity and possibility for immediate supervisory response.

In this line of thoughts Auer (2019) suggests the concept of embedded supervision based on DLT. Although the focus there are decentralised markets, this concept is fully applicable to different platform-based providers of financial services, including neobanks. One of the major conclusions in the research is embedded should promote low-cost compliance and a level playing field for small and large firms (Auer, 2019, pp. 1-2).

5. Conclusion

Application of distributed ledger technologies for compliance issues is a radically new concept gaining fast popularity. As a new technology, it may also cover some currently unknown vulnerabilities. As a positive point in this regard could be considered attempts of different financial authorities and regulators to test potential DLT-based solutions before enabling them in compliance practice. Increasingly frequent information about successful DLT tests are encouraging arguments giving confidence in near future blockchain could turns in irrevocable part of modern compliance toolkit.

REFERENCES

- Accenture (2015). Billion Reasons to Bank Inclusively. *Accenture Banking*. Available online: https://www.accenture.com/se-en/acnmedia/Accenture/Conversion-Assets/DotCom/Documents/Global/PDF/Dualpub_22/Accenture-billion-reasons-bank-inclusively.pdf
- Accenture (2016). Block Chain Technology. How Banks are Building a Real-Time Global Payment Network, Available online: <https://www.accenture.com/acnmedia/PDF-35/Accenture-Blockchain-How-Banks-Building-Real-Time-Global-Payment-Network.pdf>
- Auer, R. (2019). Embedded Supervision: How to Build Regulation into Blockchain Finance, Bank for International Settlements, Available online: <https://www.bis.org/publ/work811.pdf>
- Ciphertrace (2019). Cryptocurrency Anti-Money Laundering Report, 2019 Q2, Available online: <https://ciphertrace.com/wp->

[content/uploads/2019/09/CipherTrace-Cryptocurrency-Anti-Money-Laundering-Report-2019-Q2-3.pdf](https://www2.deloitte.com/content/uploads/2019/09/CipherTrace-Cryptocurrency-Anti-Money-Laundering-Report-2019-Q2-3.pdf)

- Deloitte (2016). Over the Horizon. Blockchain and the Future of Financial Infrastructure, Available online: <https://www2.deloitte.com/content/dam/Deloitte/mt/Documents/financial-services/gx-fsi-blockchain-deloitte-summary-mt.pdf>
- Dentos (2019). Using blockchain for KYC/AML compliance, 28 May 2019, Available online: <https://www.dentons.com/en/insights/articles/2019/may/28/using-blockchain-for-kyc-aml-compliance>
- Fintechnews (2018). IBM Completes Proof-of-Concept Blockchain-Based Shared KYC, 3 January 2018, Available on: <https://fintechnews.sg/14420/blockchain/ibm-completes-poc-blockchain-based-shared-kyc-deutsche-bank-hsbc-mufg-cargill-ibm-treasuries/>
- Hong Kong Monetary Authority (2019). Website. Key functions. Trade Finance, <https://www.hkma.gov.hk/eng/key-functions/international-financial-centre/fintech/research-and-applications/trade-finance/>
- Hurder, St. (2018). The Economics of Tokenization Part I: Not Everything Can (or Should) be Tokenized, Medium, 30 May, 2018, Available online: <https://medium.com/prysmeconomics/the-economics-of-tokenization-part-i-not-everything-can-or-should-be-tokenized-ed9b32f5a0f2>
- Investopedia (2019). Smart Contracts, Available online: <https://www.investopedia.com/terms/s/smart-contracts.asp>
- KBC (2019). We.trade and KBC Trade Club, <https://www.kbc.be/corporate/en/article/financing/trade/smooth-secure-international-trade.html>
- Laurent, P., Th. Chollet, M. Burke, T. Seers (2018). The Tokenization of Assets is Disrupting the Financial Industry. Are You Ready? *Inside. Triannual insights from Deloitte*. Issue 19, October 2018, pp. 62-67, Available online: <https://www2.deloitte.com/lu/en/pages/technology/articles/tokenization-assets-disrupting-financial-industry.html>.
- Maguire, E. et al. (2018). Could Blockchain be the Foundation of a Viable KYC Utility? KPMG International, Available online: <https://assets.kpmg/content/dam/kpmg/xx/pdf/2018/03/kpmg-blockchain-kyc-utility.pdf>
- Monetary Authority of Singapore (2017). Singapore and Hong Kong launch a joint project on cross-border trade and trade finance platform, Available online: <https://www.mas.gov.sg/news/media-releases/2017/singapore-and-hong-kong-launch-a-joint-project-on-cross-border-trade-and-trade-finance-platform>

- Mesropyan, E. (2018). How European Banks Are Using RegTech Solutions, *Medici*, 6 June 2018, Available online: <https://gomedici.com/how-european-banks-are-using-regtech-solutions>
- Mire, S. (2018a). Blockchain In Banking: 14 Possible Use Cases, *Disruptor Daily*, 17 October 2018, Available online: <https://www.disruptordaily.com/blockchain-use-cases-banking/>
- Mire, S. (2018b). Blockchain In Compliance: 6 Possible Use Cases, *Disruptor Daily*, 3 December 2018, Available online: <https://www.disruptordaily.com/blockchain-use-cases-compliance>
- Monetary Authority of Singapore (2019). Central Banks of Canada and Singapore conduct successful experiment for cross-border payments using Distributed Ledger Technology, 02 May 2019, Available online: <https://www.mas.gov.sg/news/media-releases/2019/central-banks-of-canada-and-singapore-conduct-successful-experiment-for-cross-border-payments>
- Petrov, D. (2018). Application of blockchain and smart contracts in the financial industry. *Izvestia Journal of the Union of Scientists - Varna. Economic Sciences Series*, Vol. 7, №2, pp. 24-33, Available online: <https://ideas.repec.org/a/vra/journl/v7y2018i2p24-33.html>.
- PYMNTS.com (2019). UBS Leads New Blockchain Settlement Coin Consortia, 3 June 2019, Available online: <https://www.pymnts.com/blockchain/2019/ubs-crypto-cross-border>
- Securities and Exchange Commission, SEC (2019). Spotlight on Initial Coin Offerings (ICOs), Available online: <https://www.sec.gov/ICO>
- Stavrova, E., N. Valkanov (2018). Correspondence Interrelations Between Banks and Systems for Information Discovery in Databases Created for Them. *Economics and Management*, Vol. XV, Issue: 2, pp. 27-43, Available online: <http://em.swu.bg/images/SpisanieIkonomikaupload/Spisanieikonomika2018/CORRESPONDENCE%20INTERRELATIONS%20BETWEEN%20BANKS.pdf>
- SWIFT (2019). Payments: Looking to the Future, Available online: <https://www.swift.com/future-of-payments>
- Valkanov, N. (2019a). Compliance v pomosht na finansovoto regulirane, Varna: Science and Economics.
- Valkanov, N. (2019b). Banking System and Money Laundering. Varna: E-Litera Soft, Available online: <https://www.ceeol.com/search/book-detail?id=733930>
- Valkanov, N. (2019c). Mitigation of Regulations Burden in Financial Sector by Application of High Tech Solutions. *Economics and Management*, Vol. XVI, Issue: 1, pp. 19-30, Available online: <http://em.swu.bg/images/SpisanieIkonomikaupload/Spisanieikonomika2018/C>

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THE FLOWER OF SERVICES AND ITS EFFICIENCY IN THE BANKING SECTOR

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Abstract

The combination of a core service and the accompanying number of complementary (additional, supplementary) services in marketing is called the concept of service flower. The flower of services is better looking, flourishing, beautiful, and more attractive when the basic (core) service is surrounded by a variety of additional services. Service companies are looking for ways to offer consumers a more comprehensive and profitable service concept that will convince them to buy services and build long-term loyalty with them. Companies are not altruists, but they do this in order to gain competitive advantage, to increase the number of customers and to make more profit.

The banking sector can attract and retain consumers by providing high quality services. Banks offer a range of banking products and services through various distribution channels, such as Internet banking, M-banking, ATMs, Point of sale terminals, and make efforts to differentiate themselves from market competitors. In such fierce competition, global financial systems are exploring ways to increase customer satisfaction.

Banks play an important role in the financial development and economic growth of each country. That's why banks must understand the sophisticated demands of consumers and to offer them richer service packages (beautiful flower of services!). In doing so, offering a complex service concept should be a tradition, not a one-off experience.

Keywords: Banking services, flower of services, core service, supplementary services

JEL Codes: O20

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1. Introduction

According to Ashish Sinha (2008), “a complete service product consists of two components, the core service and supplementary services. The core service is based on the core sets of benefits and solutions delivered to consumers. Surrounding the core service is a variety of service-related activities called supplementary services. They augment the core product by facilitating its use and enhancing its value and appeal. The supplementary services often play an important role in differentiating and positioning the core product against competing services.”

Often as service consumers we encounter a number of problems, such as difficulty finding parking place, problems with the service provider's website, incompetent, unkind, unfriendly and unprofessional staff, uncomfortable meeting area, untidy office space, slow or non-existent feedback, vague invoices, incomprehensible high bills. This proves that consumers are faced with unprofessional services, or poor “flower of services”. Service providers must work on all these problems and offer better services to consumers. The combination of the core and supplementary services, generally referred to as the flower of service can help companies to improve their service levels and overall client satisfaction (Tobie van Der Merwe, 2018).

Most managers agree that one of their primary organizational goals is to focus on customers. Consideration given to customer orientation is a central theme in marketing and strategic market planning for achieving competitive advantage (Zhou, Brown, Dev, 2009, pp. 1063-1070). In creating a competitive advantage, the flower of service concept by Lovelock (1996) divided service product into core service and supplementary services and he also showed that most of the different types of core services often share the use of similar supplementary services.

In most cases, the core aspects of the service can be easily identified (e.g. legal advice, education, financial advice, accounting services, transportation, restaurant services, medical treatment, etc.). The core service is the central component of the entire service product that solves a particular problem for the consumer, and he/she buys the product mostly because of its core, i.e. its benefits. The core services are those that customers view as baseline expectations, so customers will not consider doing business with a company unless it offers that level of service. The core services respond to the customers need for a basic benefit (Ng, Forbes, 2009). Thus, performing well on the core service is a matter of survival for companies. The core services companies provide are, the bare minimum a consumer expects of them to deliver. The core service consists of

core benefits for solving problems that consumers look for when they buy a service. The core services in banking industry includes all basic services provided to banks customers, borrowing and lending are deemed important functions of all banks. Therefore, these two functions can be considered as a core service.

Core services are supported (and affected), by a range of supplementary services (e.g. hospitality, information, consultation or invoicing). Supplementary services augment the core service offering, by facilitating its use and enhancing its value and appeal. Supplementary services being a part of full service product offered by marketers can be utilized as a beneficial tool to create interest and to develop awareness among customers (Goyal, 2004, pp. 36-51). Repeat buyers and more loyal clients focus much more on the supplementary services. The bottom line is that companies should focus on their consumers' full experience.

Supplementary services either facilitate service delivery or increase their value. Hence, supplementary services are divided into two broad categories:

- (a) Facilitating supplementary services and
- (b) Enhancing supplementary services (Lovelock, Writz, 2011).

2. Core and Supplementary Services

In a well-organized service company, all the flower petals are fresh, attractive and good looking. If only one of the supplementary services is not properly performed, then the whole flower will be stunted. Even if the basic service is done perfectly, the whole flower will not be attractive. This is mostly noticed by consumers. Namely, when they are not satisfied with a particular service, the problem may not have been in the basic service, but rather in obtaining the supplementary service. However, not all basic services need to be covered by all the supplementary services. The nature of the core service determines which complementary services should be offered to increase the value of the service.

As mentioned earlier, supplementary services either facilitate or enhance the value of essential services by providing information, consultation, feedback, hospitality, billing, etc. According to Lovelock (1996), the two broad categories of supplementary services are:

- A) **Facilitating supplementary services** that are needed for service delivery:
 - **Information:** Information provides the consumer with “peace of mind”, as well as guidance and understanding of pricing, conditions of sales, usage, etc. Without information, consumers are very often left unsure.

- **Invoicing:** Consumers want to be clear on what they are paying for, when they have to pay and how to pay. An invoice needs to be on-time, accurate and clear.
 - **Feedback:** Consumers want feedback on the progress, status of their transaction, enquiry or problem. Slow or no feedback often causes frustration amongst consumers.
- B) **Enhancing supplementary services** that add value and appeal to the company and its services:
- **Consultation:** Companies want customized advice and personal counselling.
 - **Hospitality:** Includes making consumers feel welcome, offering refreshments, clean toilets and comfortable waiting areas.
 - **Empathy:** Refers to good communication, customer understanding and easy accessibility. It reflects the ability and willingness to listen to a client's needs and relate to their problem, needs or frustrations.
 - **Courtesy:** Refers to consistent friendliness and professionalism of staff – whether in person, telephonically or via email.
 - **Availability:** accessibility via telephone or email to give feedback, information or advice.
 - **Tangibles and appearances:** Refers to the appearance and physical elements of the business, e.g. availability of parking, reception or waiting areas, consultation or meeting areas, marketing material (e.g. business cards, brochures).
 - **Reliability:** Refers to dependable and accurate performance, like getting back to consumers and doing what was promised to be done.
 - **Safekeeping:** Safekeeping relates to keeping consumers' records safe, private and confidential.

A company can therefore create a significant competitive advantage by focusing on the service quality of their supporting services and by adding value to the core service.

3. The perfect Flower of Banking services

In order to be competitive in the market, banks must offer excellent basic service, as well as additional services of full quality. It is considered that if all services are well organized and performed the flower of banking services will be good and remembered by consumers. The basic services provided by banks are active, passive and neutral banking works. The additional services can be facilitating and enchanting.

- **Facilitating complementary services** that facilitate the provision of banking services are information, order taking, billing and payment.

A) INFORMATION: To obtain full value from any service experience, customers need relevant information. They need guidance and understanding of basic service, terms of sale, pricing, location, working hours, availability. Without information, the consumer may be unsure of where and how to obtain the service (Aaker, Kumar, Day, Leone, 2010).

In the banking sector, this petal of the flower is of great importance. Prompt and reliable information is very important to consumers. They must have information on where to find banks, especially their affiliates, branch offices, ATM machines, payment machines. If consumers do not have the information, they might be irritated and can request services from competing banks. Also, it is important to highlight the working hours, to describe in detail the bank's offers, the instructions for purchase and use banking services, sales conditions, the way of obtaining the services. The bank would also differentiate its offer with timely notifications for changing the terms of service provision. Information is also needed on new trends in banking, i.e. using e-banking, how to access customer accounts, types of transactions and payments that can be made online, advertising material and various types of promotions offered by the bank, changes in banking services and so on.

B) ORDER TAKING: Once customers are ready to buy, companies must have effective supplementary service processes in place to handle applications, orders, and reservations. The process of order taking should be polite, fast, and accurate so that customers do not waste time and endure unnecessary mental or physical effort. Banks, insurance companies, and utilities require prospective customers to go through an application process designed to gather relevant information and to screen out those who do not meet basic enrolment criteria (like a bad credit record or serious health problems). The banking procedures may include the procedures of opening a new bank account, applying or issuing of credit card, and renting safe box deposit (Singh, Kaur, 2011, pp. 327-348).

C) BILLING: Payment is the most important and sensitive supplementary service for all the services. Incomplete, incorrect, illogical presentation of the amount to be paid makes consumers dissatisfied with the complete service received. These failed payments can greatly damage the service company's reputation. Payment procedures cover a wide range of activities ranging from machine-readable amounts, to verbal reports, monthly reports on account balances and active invoice logging. Recent technological advances have enabled service companies to apply computerized payments. Consumers want clear and

informative bills that will detail how the total value is calculated, with precisely determined prices per activity. Confusing and unexpected extra costs, unclear invoices and calculations, vaguely printed and illogical accounts lead to consumer dissatisfaction (Kim, Kleiner, 1996, pp. 22-27).

Banks can inform consumers, even daily, about transactions in their accounts and final balances. They also use a machine to display transaction balances on their respective ATM machines. With the new information technologies there are opportunities for self-payments.

D) PAYMENT: In most cases, a bill requires the customer to take action on payment. Bank statements are an exception, since they detail charges that have already been deducted from the customer's account. Increasingly, customers expect ease and convenience of payment, including credit, wherever they make their purchases. A variety of options exists to facilitate customer bill paying. Self-service payment systems, for instance, require customers to insert coins, banknotes, tokens, or cards in machines. Much payment still takes place through hand-to-hand transfers of cash and checks, but credit and debit cards are growing in importance as more and more establishments accept them. Other alternatives include tokens, vouchers, coupons, or prepaid tickets (Harangus, 2011).

The banking sector is also taking advantage of this part of the service. Payment is very important and can be realized in many ways that are already theoretically explained. Payments are mostly encouraged by the self-payment system, by inserting credit and debit cards into ATM machines, paying in cash, paying by automatic deduction of the amount of transaction accounts with customers, electronic transfer of funds and so on. It also encourages cash payments, and more in installments.

- **Enchaining complementary services** increase the value of core services and they are consultation, hospitality, safekeeping and exceptions.

E) CONSULTATIONS: Consultation involves a dialog to identify customer requirements and develop a personalized solution. These services usually include personal counseling and advice. Consumers use the service company's expertise and knowledge. Consultation and advice tailored to individual customer needs and desires add extra value to companies' services. Examples of consulting are managerial and technical consulting, personal consulting, customized advice, training and product use training.

Banking activities require consultation with bank employees. Consumers are often unaware of the details of banks' offerings and seek help for more appropriate offers for them, terms of sale, ways to obtain and repay loans for various purposes, etc. Although some companies charge consulting, still if it is

free it will be an advantage for the bank. In some banks there are special rooms where information can be shared intimately with consumers.

F) HOSPITALITY: Companies should treat consumers who are willing to invest the money, time and effort into their services with the respect and kindness they deserve. Kindness adds extra value to the company's services and makes them more attractive to consumers. First of all, kindness refers to the appropriate warm welcome and greeting of old customers who come back to the service company and greeting especially new customers. Hospitality and kindness are not only important for direct face-to-face contact, but also for written addressing and telephone conversations. Hospitality also refers to a decent and comfortable waiting corner, seating area, clean and well-equipped toilets. Other elements that can increase hospitality include free drinks and food, security, weather protection, transportation, entertainment, free internet, newspapers and magazines. The quality of a service company's hospitality and courtesy services can increase or decrease customer satisfaction with the company's core service.

Banks today pay much attention to this kind of supplementary services. They offer seating for waiting customers, provide numbers for various services, self-service coffee, water and other beverages. They also offer restrooms and refreshments for their clients. Some banks offer newspapers and magazines as well as free internet.

G) SAFEKEEPING: While visiting a service site, customers often want assistance with their personal possessions. In fact, unless certain safekeeping services are provided (like safe and convenient parking for their cars), some customers may not come at all. The list of potential on-site safekeeping services is long. It includes: provision of coatrooms; luggage transport, handling, and storage; safekeeping of valuables; and even child and pet care. Additional safekeeping services are directed at physical products that customers buy or rent. They include packaging, pick-up and delivery, assembly, installation, leaning, and inspection. Sometimes there's a charge for these services.

Banks really care about the properties and possessions of the consumers. They have the option of storing their precious things in safe boxes or vaults, then parking spaces, wardrobes, personal caring for consumers. Often banks are part of so-called multifunctional buildings where there are children's corners, supermarkets, various clothing stores, footwear, restaurants, etc.

I) EXCEPTIONS: are non-routine supplementary services that are not part of the normal delivery of services. Consumers expect responsibility and prompt resolution of cases where services are not delivered as expected. Examples may be complaints, customer problem solving, service difficulties,

warranties and compensation, refunds, assistance to consumers with special medical needs, free repairs and maintenance. Troubleshooting means that the service company is taking action because of a failed service delivery. This may be due to cancellation of equipment, delay in delivery, accidents that may occur while using the services. Compensations are provided in the event of serious non-performance of services. They can be in the form of financial compensation, litigation, warranty repairs or other free services.

Banks, while paying close attention to some of these services, are thought to make additional efforts to provide these additional services. It is especially important to have regulated rules for managing complaints, suggestions, and even boosts of clients for their services. Also, the system of refunds and commissions is very rarely used for the actual failure of banks to fulfill their obligations and services.

4. Conclusions

In modern industries, the core service accompanying by additional qualitative services is actually the entire product. The search for comparative advantage in the market requires an improvement in the supply of additional, complementary services that enhance the core service. There are eight types of supplementary services that look like leaves of a flower. They are categorized into two major groups, facilitating and enchanting supplementary services. Facilitating complementary services improve the use of the core service or are necessary for better service delivery, and enhancing supplementary adds extra value to consumers.

Designing a full service experience is a complex task and requires understanding the core and complementary services and offering them in a combination that meets the needs and desires of the customers.

Banks should constantly analyze the existing services they provide and work on making them better and more attractive for consumers. They should always try to sell the fresh, beautiful flower of services and keep customers happy and satisfied. Failure to do so will result in loss of customers and their trust in their activities.

REFERENCES

Aaker, D. A., Kumar, V., Day, G. S., Leone, R. P. (2010). "Marketing research", International student version (10 ed.). NJ: Wiley.

- Assenova, Mariana (2018), "Scope, Specifications and Elements of Strategic Marketing planning in Banks", *Entrepreneurship*, 6(1).
- Ashish, Sinha (2008), "The Concept of "Flower of Service" as an innovative way of appraising core and supplementary services,
<https://www.scribd.com/document/256228414/The-concept-of-Flower-of-Service-as-an-innovative-way-of-appraising-core-and-supplementary-services>,
 retrieved March, 2020.
- Goyal, A. (2004). "Role of supplementary services in the purchase of credit card services in India". *Asia Pacific Journal of Marketing and Logistics*, 16(4), 36-51.
- Harangus, D. (2011). "Promoting banking products in the context of the digital economy". *Bulletin UASVM Horticulture*, 68(2), 85-89.
- Kim, S., & Kleiner, B.H. (1996). "Service excellence in the banking industry". *Managing Service Quality*, 6(1), 22-27.
- Lovelock, C. (1996). "Services marketing people, technology, strategy" (3 ed.). NJ: Prentice Hall
- Lovelock, C., Wirtz, J. (2011). "Services marketing, people, technology, strategy" (7 ed.). NJ: Prentice Hall.
- Ng, I.C.L., Forbes, J. (2009). "Education as service: The understanding of university experience through the service logic". *Journal of Marketing for Higher Education*, 19(1), 38-64.
- Singh, J., Kaur, G. (2011). "Customer satisfaction and universal banks: An empirical study". *International Journal of Commerce and Management*, 21(4), 327-348.
- Stavrova, E., Zlateva, D. (2016) Financial innovations and banking value chain channels of distribution, 3 rd International Conference on Innovation and Entrepreneurship in Marketing & Consumer Behaviour (ICIEMC) – 2016, Lisboa, Portugal, 183-197, <http://iciemc.pt/wp-content/uploads/2014/05/ICIEMC-Proceedings-2016-with-ISBN.pdf>
- Vlad Miranda-Petronella (2009), E-Banking-Modern Banking Services, *Annals of Faculty of Economics*, vol. 4, issue 1, 1093-1096, <http://steconomice.uoradea.ro/anale/volume/2009/v4-management-and-marketing/225.pdf>
- Zhou, K.Z., Brown, J.R., Dev, C.S. (2009). "Market orientation, competitive advantage, and performance: A demand-based perspective". *Journal of Business Research*, 62(11), 1063-1070.
- Zlateva, D. (2016), Online marketing and its role in promoting the use of banking services, *Enterpreneurship*, Vol. IV, Issue1, pp. 87-99,

http://ep.swu.bg/images/pdfarticles/predpriemachestvocolibroeve/Entrepreneurshuip_br.2_2016.pdf
<https://econpapers.repec.org/scripts/search.pf?ft=Banking+services>
<https://www.sciencedirect.com/science/article/abs/pii/S1062940818304984>,
retrieved March, 2020
https://www.indstate.edu/business/sites/business.indstate.edu/files/Docs/2009-PB-12_VanHoose.pdf, retrieved March, 2020
https://econpapers.repec.org/article/orajournal/v_3a1_3ay_3a2010_3ai_3a2_3ap_3a1086-1090.htm, retrieved March, 2020
<https://www.succeedgroup.co.za/2017/07/14/client-service-according-to-the-flower-of-service/>, retrieved March, 2020

GOLD PRICE AND BITCOIN EXCHANGE RATE: IS THERE A CORRELATION?

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Abstract

The purpose of this paper is to study the empirical relation between Gold price and Bitcoin exchange rate. Both the rates have been expressed in US dollars. The empirical analysis has been run via quantitative techniques – correlation analysis and Granger causality test. These procedures have been applied on data with monthly frequency for the period March 2013 – November 2019. The output suggests existence of a weak positive correlation.

Keywords: *Gold price; Bitcoin exchange rate; US dollars; correlation*
JEL Codes: *G11; G13*

1. Introduction

Since love has not made so many people to look foolish so the attempts to speak about the nature of money, the focus of this paper is not on the money in general nor on the types of money. The focus also is not on the comparison between two assets that claim to be considered as money. The focus is not on the transition from crude commodity money towards the most intangible form of money as well. The main focus is on two assets that are subject of organized trading.

Coupling these assets does not seem to be a random choice. The symbolic character of coupling two pseudo-monetary assets could be accepted as a prior reason for this choice. This is seen at first glance. Somebody else could see this coupling as a meeting between the past and the future of money. Gold was money for centuries but not today. Crypto-currencies are expected to be money in future but not today. The lack of monetary role is not only focal point of these assets but also the possibility to be traded on organized markets. And what is more,

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derivative instruments on these assets enjoy wide popularity among the investors for organized regular trading.

Being traded, these assets are subject of demand, supply, lending, borrowing, using as a basic asset for a derivative instruments. In this sense, investing in gold or crypto currency is a decision that is determined by the proportion of risk and expected return. Comparisons on this proportion would make the assets have diametrically opposed specificities. Gold could provide the investors with sustainability, easy predictability, and even a safe haven for their money. The investors however would enjoy a lower return. Nevertheless, more than half of investors trusted gold more than “currencies of countries” (Havilland, 2019). On the opposite end of the proportion, the investment in crypto-currency is more risky choice but giving far higher profitability than conventional currency and gold. Meanwhile, the wide fluctuations in the exchange rates were among the most prominent arguments against accepting crypto-currencies as virtual money.

This dichotomy is tending to be diluted. The most recent developments of the markets let the analysts redefine their views with respect to Bitcoin as a speculative investment. Moreover, it is even assumed to be a safe haven or a “new digital gold” (Hougan, 2019). Jerome Powell also defines it as a store of value but a “speculative store of value” (Kuhn, 2019).

Therefore, the purpose of this paper is to study the empirical relation between Gold price and Bitcoin exchange rate. Bitcoin is accepted as the most prominent crypto-currency. Both the rates have been expressed in US dollars. The empirical relation will be studied via quantitative techniques – correlation analysis and Granger causality test. These procedures will be applied on data with monthly frequency for the period March 2013 – November 2019.

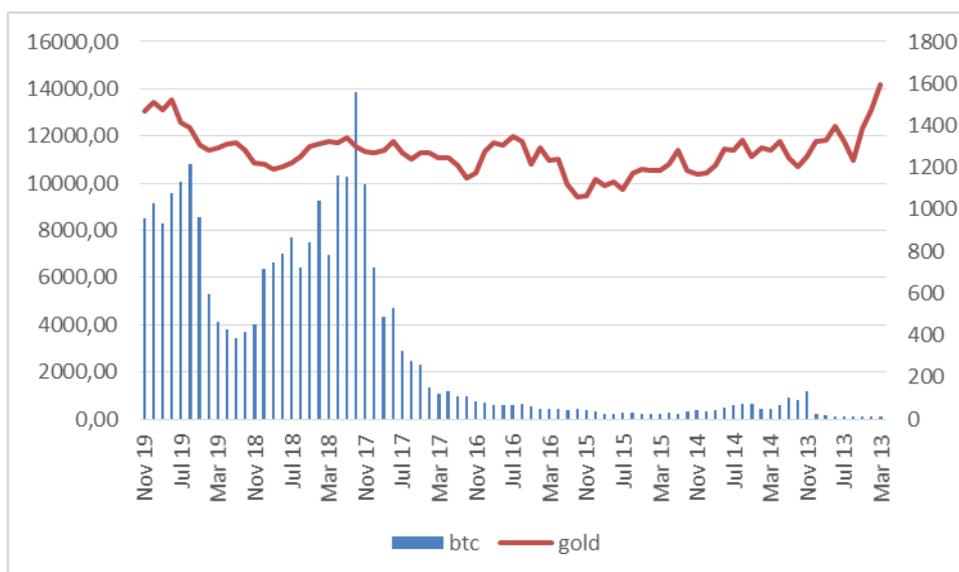
Quantitative data is derived via the trading platform MetaTrader 4. The raw data will be processed via both the econometric software products – E-Views 5 and SPSS-19.

2. Developments of the Gold price and Bitcoin exchange rate

The period of study covers post-crisis years and the years of the recovery of economic growth worldwide. It is commonplace the demands for gold and safe haven are decreasing. It is an interesting development that the price of gold remains relatively high and does not reach the pre-crisis levels. It could be explained by the political risks such as military operations, economic sanctions, Brexit, trade wars, etc. What is more, its price fluctuates in relatively narrow

limits – between \$1061.30 and \$1596.74 per ounce. In this sense, the standard deviation is 99.54.

Figure 1. Dynamics of Gold price and Bitcoin exchange rate



Source: Author's calculations

The innovative crypto asset seems to have fully opposite developments over the period. Seen on Figure 1, the second half of the period of interest is determined by an unprecedented growth of the Bitcoin's price. This cryptocurrency increased multifold its price. The investors' interest towards this asset was moved by market enthusiasm rather than a strong economic reason. It could be understood by a look at its exchange rate's fluctuations. The trading days closed on prices from \$93.00 to \$13850.40. Meanwhile, the record of \$19412.20 has been achieved in a time of daily trade. Soon after this top values, there were sharp downs finding support around \$4000 levels. The price erupted up to \$10000 and above anew in 2019. The main specifics of Bitcoin - its "volatility and 24/7 trading frustrate any attempt to correlate its daily returns with those of other assets" (Moore, 2019) except other crypto-currencies.

3. Gold price versus Bitcoin exchange rate: correlation analysis

Descriptive statistics are a starting point for a looking for a possible correlation between Gold price and Bitcoin exchange rate. The statistics of each

variable are given in Table 1. As seen, both the variables have empirical distributions that are far from the normal symmetric distribution. Therefore, correlation could not be searched via the procedures that are based on this theoretical distribution.

The procedure of Spearman has been chosen for estimating the coefficient of correlation. The test of Granger for bilateral causal relations has also been chosen for additional verification of the assumption for correlation. It has potential to give information for the time structure of the relationship between both the variables of interest.

Table 1. Descriptive Statistics

	BTC	GOLD
Mean	2951.974	1272.673
Median	698.7000	1274.760
Maximum	13850.40	1596.740
Minimum	93.00000	1061.300
Std. Dev.	3625.935	99.54275
Skewness	1.136991	0.633967
Kurtosis	2.977173	4.099771
Jarque-Bera	17.45387	9.507896
Probability	0.000162	0.008618
Sum	239109.9	103086.5
Sum Sq. Dev.	1.05E+09	792700.7
Observations	81	81

Source: Author's calculations

Table 2. Correlation Coefficients

			BTC	GOLD
Spearman's rho	BTC	Correlation Coefficient	1,000	0,295**
		Sig. (1-tailed)	0.000	0,004
		N	81	81
	GOLD	Correlation Coefficient	0,295**	1,000
		Sig. (1-tailed)	0,004	0.000
		N	81	81

***.* Correlation is significant at the 0.01 level (1-tailed).

Source: Author's calculations

The output of Spearman's procedure applied is presented in Table 2. As seen, the correlation coefficient is statistically significant. The coefficient is

positive that means these market assets are positively correlated. The value of the coefficient is on the line between 0,29 and 0,30 that is more than the threshold for defining the correlation as a weak but it is less than 0,30 to define the correlation as a moderate positive relationship.

It is reliable empirical evidence that rejects assumptions such as “Bitcoin’s price has never shown a correlation with gold, positive or negative, for any length of time, since early 2015” (Moore, 2019).

Table 3. Pairwise Granger Causality Tests

Lags: 1; Null Hypothesis:	Obs	F-Statistic	Prob.
GOLD does not Granger Cause BTC	80	0.00528	0.9422
BTC does not Granger Cause GOLD		7.97713	0.0060
Lags: 2; Null Hypothesis:	Obs	F-Statistic	Prob.
GOLD does not Granger Cause BTC	79	0.21185	0.8096
BTC does not Granger Cause GOLD		3.17880	0.0474
Lags: 3; Null Hypothesis:	Obs	F-Statistic	Prob.
GOLD does not Granger Cause BTC	78	0.47275	0.7022
BTC does not Granger Cause GOLD		1.92070	0.1340

Source: Author’s calculations

The output of the Pairwise Granger Causality Tests is presented in Table 3. As evident, there are causal links from Bitcoin exchange rate towards Gold price. The link exists at first and second lags. It fully disappears at third lag. It confirms the causal relation has a short-term character. It is in line with the statement of Moore (2019) “over the long term, it’s moved toward less correlation, not more”.

Conclusions

Despite accepting Bitcoin as a new safe haven, the wide fluctuations in its exchange rate are arguments against its eventual monetary function. They still hold Bitcoin in the category of speculative investment. So far, even artificial intelligence and advanced technology are not enough powerful to keep Bitcoin sustainable.

Gold seems to be more appropriate investment as safe haven. Its price fluctuates in more narrow limits and remains its relatively high price over the period of study.

The empirical analysis confirmed the existence of a positive correlation. What is more, it provided reliable empirical evidence for a positive correlation. It is also confirmed by the test for bilateral causal relationships. The last procedure proved the short-term character of the relation. It also confirmed a causal link in one direction – from the Bitcoin exchange rate towards Gold price. As a whole, the analysis rejects the popular hypothesis that Bitcoin's price has never shown a correlation with gold.

REFERENCES

- Moore, G. (2019, October), Is Bitcoin a Safe Haven Like Gold? These Four Charts Say Not Yet. Retrieved October 11, 2019, from Coindesk: <https://www.coindesk.com/is-bitcoin-a-safe-haven-like-gold-these-four-charts-say-not-yet>
- Havilland, P. (2019, November), Interest in Bitcoin Versus Gold Surging for All Age Groups. Retrieved November 16, 2019, from CryptoBriefing: <https://cryptobriefing.com/surging-interest-bitcoin-vs-gold/>
- Kuhn, D. (2019, July), Fed Chairman Jerome Powell Compares Bitcoin to Gold. Retrieved October 11, 2019, from Coindesk: <https://www.coindesk.com/fed-chairman-jerome-powell-compares-bitcoin-to-gold>
- Hougan, M. (2019, August), Bitcoin vs. Gold: Is Bitcoin Really A New 'Safe Haven' Asset?. Retrieved October 11, 2019, from Forbes: <https://www.forbes.com/sites/matthougan/2019/08/21/bitcoin-vs-gold-is-bitcoin-really-a-new-safe-haven-asset/>

**HERITAGE INTERPRETATION AS A TOOL FOR BLENDING
NATURE AND CULTURE FOR A MORE DIVERSE AND
ATTRACTIVE TOURISM PRODUCT**
(A Case-Study of a Nature Park in Southwest Bulgaria)

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Abstract

Interpretation of the natural and cultural heritage is gaining growing importance in both the efforts for heritage preservation and the planning of tourism development. In an inter-related and globally informed world, the supply of attractive services which answer the needs of tourists is challenging. The instrument set of heritage interpretation might be a solution to this problem. The present paper aims to demonstrate this opportunity in a practical setting. It uses the method of the case study to explore one such example in the southwest corner of Bulgaria where the Nature Park of Belasitsa is located. The analysis covers interpretive trails developed in that area, blending nature with culture, and shows as a result the feasibility of the heritage interpretation approach for a number of local development goals.

Keywords: heritage interpretation, tourism, natural heritage, cultural heritage

JEL Codes: L83, Q01, Z32

1. Introduction

The use of interpretation of the natural and cultural heritage for tourist and educational purposes exists since the early 20th century. Its foundations were laid by environmentalists and guides in the national parks of USA, followed by their colleagues in Canada and Great Britain. It wasn't until 1957 when Freeman Tilden, an American writer and admirer of nature, published his *Interpreting our Heritage*. That publication is still considered the primer of heritage interpretation worldwide.

The set of instruments of heritage interpretation has been successfully applied to both natural and cultural sites since those early days, adding value to

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the tourist perception and experience of a destination. It makes a tourist visit memorable and inspires recognition and respect to the region's values which, in its turn, helps the preservation of local natural and cultural heritage. In fact, there is a process of transposition and connection of the environment sustainability to human needs (Amoiradi & Stankova, 2020).

As a basis for modern and attractive tourism services, heritage interpretation was introduced to Southwest Bulgaria some 15 years ago. The first interpretive nature trails and exhibitions were developed for the two national parks of the area – Pirin and Rila. These included the Capercaillie and Rila Primrose Trails with a visitor center dedicated to these two globally significant species in the vicinity of the village of Dobarsko, Rila NP. In Pirin, a family of nature trails were developed around some villages with rural tourism potential – the Bear Trail, the Herbs Trail, Guests from the Past Trail and Forest Tale Trail.

Since then, heritage interpretation has been applied to a number of tourist initiatives in Southwest Bulgaria, including ones that link natural and cultural heritage. This paper presents interpretive trails developed in the Nature Park of Belasitsa.

2. Literature review

There are many definitions of heritage interpretation circling the public space in the present day, and all of them can be valid. This reflects the very nature of the term, as it involves personalization, attitudes, perceptions and emotions, allowing different *interpretations* of the definition.

The 'father' of this phenomenon, Freeman Tilden, describes heritage interpretation as an educational activity which aims to reveal meanings and relationships through the use of original objects, by firsthand experience, and by illustrative media, rather than simply to communicate factual information (Tilden, 2008, p. 16). According to many authors, including Sam H. Ham, interpretation must be seen mainly as an approach to communication which makes it personal and meaningful (Ham, 1992, p. 3). The first examples of its application come from the nature conservation sector which is why many definitions are strongly related to natural heritage. For example, Aldrige quotes interpretation as a tool to promote nature conservation (Aldrige, 1975, p. 6). In the meantime, the principles and instruments of interpretation have spread to the cultural sector where we find the definition of ICOMOS referring to a range of activities aiming to heighten public awareness and enhance understanding of cultural heritage site (ICOMOS, 2008, p. 4).

All authors and organizations work, more or less, with the first six principles of interpretation introduced by Tilden (Tilden, 2008, p.18):

1. Any interpretation that does not somehow relate what is being displayed or described to something within the personality or experience of the visitor will be sterile.
2. Information, as such, is not Interpretation. Interpretation is revelation based upon information. But they are entirely different things. However all interpretation includes information.
3. Interpretation is an art, which combines many arts, whether the materials presented are scientific, historical or architectural. Any art is in some degree teachable.
4. The chief aim of Interpretation is not instruction, but provocation.
5. Interpretation should aim to present a whole rather than a part, and must address itself to the whole man rather than any phase.
6. Interpretation addressed to children (say up to the age of twelve) should not be a dilution of the presentation to adults, but should follow a fundamentally different approach. To be at its best it will require a separate program.

One comprehensible definition of interpretation sets it as the translation of factual and/or scientific information about the natural and cultural heritage to a language that is interesting and understandable to the public (Pirin Tourism Forum, 2020, p. 65). This is achieved by telling stories each of which has a beginning, a plot, development, culmination and a finale. Each story has a precise topic related to heritage and a message which visitors will take away. The narrative is cleared of all terminology and where this is not possible – the content is explained and re-told. Informal behavior and language are applied; the sense of humor helps a lot. Group dynamics are monitored and managed non-intrusively; the public takes part in the presentation. The instrument set of interpretation is applied to planning and implementation.

The instrument set of interpretation can include, as an example: questions & answers, competitions, treasure hunts, games, quizzes, puzzles, charades, dramatizations and puppet theatres. The *Questions and answers* instrument can be applied to every visitor individually, to the whole group; it can raise a challenge of who will be the first to give the right answer or as many answers as possible. *Competitions* (individual and in groups) can involve who will be the first to see one element of the general picture; who will find the biggest number of parameters set in advance. The *Treasure hunt* is a specific type of competition which can be used in a huge variety of forms – from children’s games of searching for hidden objects in a room or the mobile app of WORDZ, to the recognizing of

specific architectural elements in old houses or churches. *Games* also come in various forms – from adaptations of children’s games to specially developed such; be it physical or intellectual. The *quizzes and puzzles* can be solved or invented by the public. *Dramatization* instruments include roleplay games, development of scripts, shows, including personifications of objects, plants and animals. And finally, *Puppet theatres* are the same as dramatizations but with the use of preliminary prepared ‘characters’.

3. Methodology

The method used for this research is the case study as described and analyzed by Starman (2013), i.e. as an examination of complexity in a real-life situation, with two phases – of description and analysis. Each research has a subject – the individual case or a small group of cases that will be studied and an object or research area – the wider context in which the case evolves. The application of the method starts with the selection of such an object (person, family, organization or community) where a problem of interest to the researcher exists. Then the subject / the case is selected not as a representative sample but because it is outstanding, contrasting or unique and may bring substantial changes to the research area.

The method has been selected as it proposes a number of advantages, relevant to the problem of interest (Starman, 2013, p. 36). It has a higher conceptual validity over quantitative methods, evading the risk of combining different cases in one sample just to make that sample representative. It can assess qualitatively complex events and numerous variables, at the same time deriving new hypotheses. During the process, the method can detect and examine the operation of causal mechanisms with their complex causal relations. The fact that the method is based on real-life events and phenomena is often considered its main advantage for researchers.

4. Applied interpretation issues - the case of Belasitsa

Belasitsa is the youngest nature park in Bulgaria, established in 2007 at the initiative of environmentalists and local communities. It covers the northern slopes of Belasitsa Mountain which runs from east to west along the Bulgarian-Greek border before entering North Macedonia. Its highest peak is Mt. Radomir at 2029 m. above sea level but the best known is Mt. Toumba (1880 m. a.s.l.) where the borders of the three countries meet.

The total territory of the Belasitsa NP is 11,732 ha and it includes the lands of eight villages located at the foot of the mountain (Directorate of Belasitsa

Nature Park, n.d.). One of those is the village of Kolarovo where the Directorate of Belasitsa NP is located, together with its Visitor Center. The main reason for designating this protected territory is the preservation of valuable habitats and centuries-old forests, including the largest source of sweet chestnut on the Balkans. The latter is the symbol of the Park and the subject of the annual Chestnut Festival which is organized here every second week-end of October.

Since its very establishment, Belasitsa NP started working with the local communities of the eight adjacent villages and also the municipal center of Petrich Town, for the joint development of sustainable forms of tourism. It promoted broadly the use of heritage interpretation to shape quality tourism services, and that is also one of the priorities in the Management Plan of the Park developed in 2013 (Ministry of Environment and Waters, n.d., p. 224). The Directorate initiated and secured funding for the first in Bulgaria ‘family’ of interpretive tourist trails in the vicinity of the villages.

The first trails to be developed were the result of a project entitled *Conservation of Globally Significant Biodiversity of the Belasitsa Mountains through Involvement of Local Communities in Ecotourism Development* (Pashova, 2018, p. 529), funded by the Swiss Agency for Development and Cooperation and the Global Environmental Facility through the Small Grants Programme. It was implemented by the Bulgarian Biodiversity Foundation in the period 2008-2009 and included the development and promotion of four thematic trails. The Friends Trail starts at Belasitsa Hut, about 7 km up in the mountain from the town of Petrich. It is dedicated to the forests of Belasitsa which are the best friends of local people. The Ants Trail is located a little higher up in the mountain, starting at Kongur Hut, 16 km from Petrich. Dedicated to the unique social structure and biology of the red wood ants. The Life of the Chestnut Trail is centered around the symbol of the mountain, the sweet chestnut and starts from the village of Kolarovo. The neighbouring village of Yavornitsa is the starting point for the fourth trail, the Butterflies and Flowers of Belasitsa Trail which presents the huge diversity of species of butterflies in the Nature Park.

Two more interpretive trails were funded in the period 2011-2013 by a project entitled *En-Act: Environmental Actions for the Promotion of Alternative Forms of Tourism* under the 1st Call of the European Territorial Cooperation Programme Greece - Bulgaria 2007-2013 (Directorate of Belasitsa Nature Park, n.d.). They were implemented by the Directorate of Belasitsa Nature Park in partnership with the Municipality of Vissaltia (ex- Municipality of Nigruta) acting as Lead Partner, the Greek Mountaineering Club of Nigruta, the Centre for the Development of Rhodopes (located at Smolyan) and the Serres Chamber of

Commerce and Industry. One of the trails - Secrets of Water Trail - was located close to Samouilovo Village, with possible alternative route starting from Kamena Village. It was dedicated to water as a source of life, not only for local people but for all humanity. The other one - Travel through History Trail – had its starting point at the village of Kolarovo.

At about the same time, the Directorate of the Nature Park managed the development of its two latest interpretive trails, within the frame of the project *Implementation of Activities for the Management of Belasitsa Nature Park*, funded by the European Regional Development Fund and the Bulgarian Government through the Environment 2007 – 2013 Operational Programme (Directorate of Belasitsa Nature Park, n.d.). The Colorful Tale Trail, starting at Samouilovo Village, was dedicated to the great diversity of flowers in the mountain of Belasitsa. The last trail, entitled Woodpeckers – Keepers of the Forest Trail, near Gabrene Village, was focused on this quite interesting bird species which is often under-rated.

There are also two specialized cycling trails in the adjacent territories of Belasitsa NP and marked paths to all the waterfalls of Belasitsa Mountain which are especially attractive in late spring and the summer. The main long hiking route along the ridge starts from the town of Petrich and leads to Mt. Toumba, with several cross-cuts to the villages below.

All nature trails make references to the anthropogenic activities in the region and local cultural heritage. However, it is the Travel through History Trail that has been selected to form the core of this case study (the case itself) since it is the one where nature and culture really blend together with the means of interpretation.

The trail follows the route from the village of Kolarovo to Demir Kapiya Pass which is extremely suitable for presenting the topic about cultural and historical heritage of the region and its connection to the natural setting. First of all, the village of Kolarovo is one of the oldest settlements in the region. Furthermore, the trail partly covers the cart road through the mountains used in the past. The end point of the trail is the pass Demir Kapiya, a historical place where important events happened in the past. Historically, it was the main artery connecting Bulgarian and Greek territories, later an important section of the Iron Curtain, and now a point of connection between two friendly nations again.

The trail takes between 8 and 9 hours in both directions and the recommended time for visits is between June 1st and September 30th. It is aimed at visitors who are aged 18+ and have relatively good physical status as Belasitsa is a steep and challenging mountain. The programme includes information

presented on boards, visualization and some games. Information is structured in sections, connected to special stops along the route. The starting point introduces the region, its history and nature, and the route itself.

Stop 1 is related to Prehistory. It presents the first settlements in the area of Belasitsa, based on the example of Promahon-Topolnitsa site. The interpreter uses drawings of a prehistoric house (reconstruction) and a modern clay house to make a comparison and to introduce the value of living closer to natural environment and using natural materials. A special activity is offered to visitors entitled *Pictures tell us a story* during which the guide shows the pictures of prehistoric artifacts from Promahon-Topolnitsa village (different tools, pottery, clothes) and the visitors must guess what the objects are and what were they used for in the past.

The location of Stop 2 is chosen to be at Chukata Fortress remains. It presents the history and use of the place from Thracian till Medieval times. The interpreter interacts with the group through questions and answers in order to describe the former fortification.

Stop 3 is dedicated to the so-called Dolyan Fair and gets the visitors acquainted with this huge event in the period 16th-19th century close to the village of Dolene. The visitors play a role-game entitled *Market Day at the Dolyan Fair* where some are sales-people and the others are customers supposed to find out what were the goods that were sought and supplied at that historic time, describing the peculiarities of everyday life in the region and how close to nature it was back then.

The topic of Stop 4 is *What did local people use to eat*. It presents the menu of local population historically and stresses on the fact that they actually used to eat healthy natural products, unlike us modern people today. The interpreter may challenge the group to prepare a virtual dish out of available local products.

Stop 5 introduces traditional local practices of everyday life. The interpreter speaks of some celebrations and customs which were very important in the life of local people and were again closely related to nature and natural cycles. The challenge to visitors at this point is to learn how to make a wreath, recognizing local plants and their meanings and use in practice.

The end point of the trail is located at Demir Kapiya Pass, almost on the ridge of the mountain. The interpreter tells the story of the role of this important communication and transport corridor in some important historic events. Visitors may be given some fun tasks on the way back, e.g. develop a word game for local names or treasure-hunt for edible ingredients in the forest.

Along the route, there is also a set of nine information and interpretation boards whose purpose is to enrich the experience of the visitors and reinforce the inter-connection of cultural and natural heritage of the region.

The development of the Travel through History Trail was a result a participatory process managed by the Directorate of Belasitsa Nature Park and following a model that was applied to all initiatives for sustainable tourism development in the area since the very beginning. First, an inventory was made of all local tourism resources. Collected and systemized information was analyzed and tourism potential was evaluated using independent expert assessments.

At the next phase, participatory planning was applied, involving local stakeholders – the *Chitalishta*, guesthouse owners, village mayors, folklore performers, craftspeople and others. Series of joint workshops were organized, following some targeted training for the participants in tourism, customer care, guiding and – of course – heritage interpretation. At these workshops, the local tourism initiatives were planned using various interactive methods, e.g. brainstorming, method of the three ideas, group ranking and others.

The trails were physically constructed with the help of external contractors and the funding from various projects, while marketing was accomplished in cooperation with partners such as tourism and environmental NGOs, travel agents, media, etc. Since the official ‘opening’ of the Travel through History Trail, almost 1/3 of the visits to the park have included it, although 90% of visitors have not gone to the final point as it is quite physically demanding. The NP Directorate is offering a shorter version which a growing number of visitors show interest of. There has been an additional benefit for local people showing greater interest to their own history and history interpretation has proven also to facilitate delicate cross-border relations with both neighbouring countries.

5. Conclusion and Recommendations

The selected case study shows that heritage interpretation can be successfully applied as a tool blending the natural and cultural heritage of a region. Moreover, this blend can serve as a basis for contemporary, attractive and marketable tourism services and products. In a region such as Belasitsa which was a no-visit border region for most of the 20th century, both natural and cultural

heritage have remained well-preserved and can be maintained in that status through the development of sustainable local businesses and tourism in particular.

The existence of an institution such as the Directorate of the Nature Park that can serve as a motor for local development, is a big advantage, as are the active members of the local community. However, it is the development of quality additional tourist services answering the expectations of present-day tourists that is the key to success

REFERENCES

- Aldridge, D. (1975). *Principles of Countryside Interpretation and Interpretive Planning*. H.M. Stationery Office.
- Amoiradis, C. & M. Stankova (2020). The Systemic Crisis and the Need for Sustainability: An Overview, *Journal of Management Research and Practice*, Volume 12, Issue 1 / March 2020, pp. 15-26. Available from <http://mrp.ase.ro/no121/f2.pdf>
- Directorate of Belasitsa Nature Park. (n.d.). *About the park*. Retrieved April 24, 2020, from: <http://www.belasitsa.net/index.php/bg/za-parka/za-parka>
- Directorate of Belasitsa Nature Park. (n.d.). *En-Act - Environmental Actions for the Promotion of Alternative Forms of Tourism*. Retrieved April 24, 2020, from <http://www.belasitsa.net/index.php/bg/za-parka/proekti/129-2015-04-20-11-55-51>
- Directorate of Belasitsa Nature Park. (n.d.). *Implementation of Activities for the Management of Belasitsa Nature Park*. Retrieved April 24, 2020, from: <http://www.belasitsa.net/index.php/bg/za-parka/proekti/130-2015-04-20-12-03-49>
- Ham, S. (1992). *Environmental Interpretation: A Practical Guide for People with Big Ideas and Small Budgets*. American Press/Fulcrum.
- ICOMOS (2008). *Charter for the Interpretation and Presentation of Cultural Heritage Sites*. Retrieved April 24, 2020, from http://ictp.icomos.org/downloads/ICOMOS_Interpreter_Charter_ENG_04_10_08.pdf
- Ministry of Environment and Waters (n.d.). *Management Plan of Belasitsa Nature Park*. Retrieved April 24, 2020, from: <https://www.moew.government.bg/bg/priroda/zastiteni-teritorii/planove-za-upravlenie-na-zastiteni-teritorii-vlezli-v-sila/nacionalni-i-prirodni-parkove/>
- Tilden F. (2008). *Interpreting our heritage*. 4th edition, Kindle edition. The University of North Carolina Press.

- Pashova, R. (2018). "BELASITSA" NATURE PARK – AN EXAMPLE OF SUSTAINABLE TOURISM DEVELOPMENT, *HORIZONS INTERNATIONAL SCIENTIFIC JOURNAL Series A Social Sciences and Humanities, Vol.23*. "St. Kliment Ohridski" University - Bitola, DOI 10.20544/HORIZONS.A.23.2.18, 523 – 535.
- Pirin Tourism Forum (2020). *Cross-Border Strategy for a Culture Heritage – Friendly Tourism Environment*. Retrieved April 24, 2020, from <http://www.ptf-bg.org/?p=403&lang=en>
- Starman, A.B. (2013). The case study as a type of qualitative research. *Journal of Contemporary Educational Studies, 1/2013*, 28-43.