PROCEEDINGS BOOK

ICFAEC
International Conference on
Food and Agricultural Economics

2nd
INTERNATIONAL CONFERENCE ON
FOOD and AGRICULTURAL ECONOMICS
27-28th April 2018
Alanya, TURKEY

ISBN: 978-605-245-196-0

Harun Uçak (Ed.)
Alanya Alaaddin Keykubat University

2nd

INTERNATIONAL CONFERENCE ON
FOOD AND AGRICULTURAL ECONOMICS

PROCEEDINGS BOOK

(Full Texts-Abstracts-Posters)

27th -28th April 2018
Alanya Alaaddin Keykubat University, Turkey

ISBN
978-605-245-196-0

2nd International Conference on
Food and Agricultural Economics
27-28th April 2018, Alanya, Turkey

IMPORTANCE AND CHALLENGES OF SUSTAINABLE CONSUMPTION

Mária Fekete Farkas
Szent István University, Hungary

Éva Görgényi Hegyes
Szent István University, Faculty of Economic and Social Sciences,
Doctoral School of Management and Business Administration, Hungary
Email: eva.hegyesne.gorgenyi@phd.uni-szie.hu

Abstract

Nowadays concept of sustainability has changed significantly – more and more attention is focused on social welfare, its preservation and increase; besides the issue of production and use of resources. Therefore these purposes are also the ultimate goal of sustainable consumption. To achieve these goals, however, the contribution of all economic actors is also necessary – sustainable consumption is unimaginable for example without education and awareness raising on sustainable consumption and lifestyles providing consumers with adequate information. Furthermore, it is essential to create a value system and infrastructure – as the contribution of the public sector – or developing effective, knowledge based technologies and products from the side of businesses or different other stakeholders. Hence, it also requires a systemic approach and cooperation among actors operating in the supply chain, from producer to final consumer in order to achieve the Sustainable Development Goals determined by the United Nations. Considering the efforts made since the 1990's in the interests of sustainable consumption, we conclude there is no unified action to facilitate the change of consumption patterns and, on the other hand, the progress made so far is actually marginal.

The current paper is intended to summarize the most important related literature and provide a better understanding of sustainable consumption and its challenges through the global consumption trends. This study focuses mainly on Sustainable Development Goals of the United Nations in the context of its challenges in the near future. Moreover, the expected result of this present paper is to investigate the responsibility of the different economic actors and their further contributions to sustainable consumption.

Keywords: Sustainable consumption, consumer behaviour, challenge, sustainable development goals, contribution.

1. Introduction

Since the 1980's, the concept of sustainability has been given more and more attention and also changed considerably – the researchers have started to focus on social welfare, its preservation and enhancement. Among other things, the above mentioned areas have become the ultimate goal of sustainable consumption. To achieve these goals, however, the contribution of all actors in the economy is essential: for example, the change of consumption patterns towards sustainability is unimaginable withouteducation, knowledge transfer and awareness raising. On the other hand it is essential to create an appropriate value system and infrastructure (ie. the contribution of the public sector) or developing effective technologies and products(from side of businesses).

Through the information society came to the fore, and all elements of our environment change rapidly, knowledge transfer has a continuously increasing role – not only in our daily life but in long term consumer patterns. Due to the changing and expanding concept of sustainability researchers determined and evaluated new sub-dimensions which are significantly connected to the economic and social well-being. However, looking at the efforts made since the 1990's in the interests of sustainable consumption, we conclude that, on the one hand, there is no integrated and unified measure to promote the change of consumption patterns and, on the other hand, the progress made so far is marginal. Global consumer patterns show that our behaviour has become more and more unsustainable.

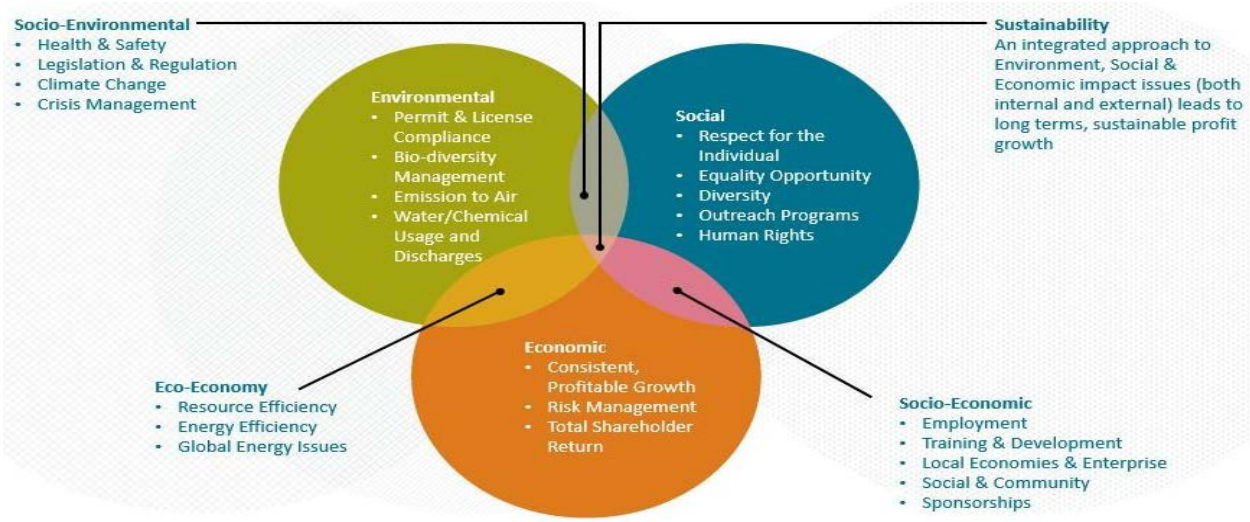
Therefore, it can be clearly seen that a number of critical areas has to be changed to find the most appropriate solutions.

The main objective of this paper is to summarize the most relevant literature in order to find the relationships among the sustainable consumption and production, the reformulated sustainable development goals and the global consumption patterns focusing on the example of water as a natural resource. Moreover, the study also offers a brief introspection into the responsibility and contribution of the different economic actors towards the long-term sustainability.

2. Sustainable Development

2.1 Changing Concept of Sustainable Development

In order to understand the role of sustainable consumption and its challenges in achieving the reformulated sustainable goals of the United Nations, it is essential to know the most relevant definitions and relationships in this particular area. In the last few decades, attention to sustainability or sustainable development is increasing – more and more researchers started to deal with this area.Original definition of sustainability derives from the Brundtland Report of 1987 which determined sustainable development as the "development that meets the needs of the present without compromising the ability of future generations to meet their own needs." (WCED, 1987). Similarly to the original concept, major part of researchers evaluate the sustainability in a traditional way – they start out from the side of production and use of resources, and are mainly connected to its different dimensions. For example, Daly (1996) defined sustainable development as "development without growth beyond environmental limits." Keszi Szeremlei and Magda (2015) provided a wider description, however, still remaining the production side – according to them sustainability comprises of production and utilization that are sustainable from environmental, social and economic aspects as well as of the highest level of energy efficiency that current technology allows.



Source: Adapted from Barcan (2016).

Figure 1. Pillars of Sustainability

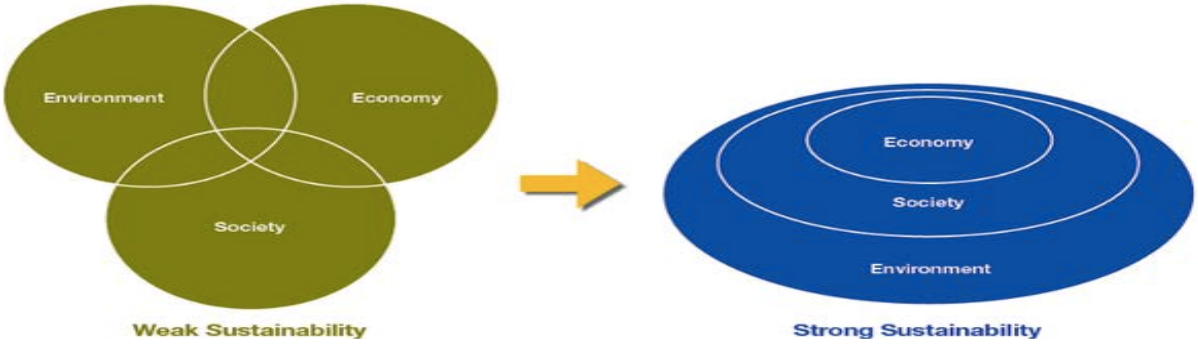
Nevertheless, recently a more practical and detailed approach has spread which said that sustainability is simply the ability to continue a well-defined behaviour indefinitely without the degradation of natural, physical, human, and intellectual capital (Crittenden et al. 2011). According to Meadows et al. (2015) one of the reasons and also the result of sustainability is the diversity both in nature and society. Despite of many different definitions it is clear that sustainability is universally thought to have the following three components as pillars: environment, society and economy. Moreover it is also true, that nowadays researchers have not been talking about only three main categories, but also the following sub-dimensions can be evaluated (as can be seen in Figure 1) –

expanding the original structure and starting out from the side of consumers:

- socio-economic: thecommon section of social and economic dimensions e.g. jobs creation, trainings, business ethics, sponsorships etc.,
- socio-environmental: the common section of social and environmental dimensions e.g. health&safety, climate change or crisis management,
- eco-efficiency or eco-economy: the common section of economic and environmental e.g. resource efficiency, energy efficiency or life-cycle management.

2.2 Weak and Strong Sustainability

Nowadays sustainable development has two different approaches or interpretations: weak and strong sustainability (see Figure 2). Above mentioned categorization – which can be seen in Figure 1-, belongs to the weak sustainability which means that economic and environmental considerations are equally taken into consideration in the decisionmaking process. It assumes that natural capital and manufactured capital are essentially substitutable and considers that there are no essential differences between the kinds of well-being they generate. In contrast, strong sustainability does not allow substitutability between natural capital and produced capital (either physical or human)(United Nations, 2013).



Source: Adapted fromHart (2017).

Figure 2. Two Different Interpretations of Sustainability

Pelenc et al. (2015) summarized the main differences between strong and weak sustainability based on the research of Mancebo (2013), as can be seen in Table 1.

Table 1. Main Differences between Strong and Weak Sustainability

	Strong Sustainability	**Weak Sustainability**
Key Idea	The substitutability of natural capital by other types of capital is severely limited.	Natural capital and other types of capitals (manufactured etc.) are perfectly substitutable.
Consequences	Certain human actions can entail irreversible consequences.	Technological innovation and monetary compensation for environmental degradation.
Sustainability Issue	Conserving the irreplaceable stocks of critical natural capital for the sake of future generation.	The total value of the aggregate stock of capital should be at least maintained or ideally increased for future generation.
Key Concept	Critical natural capital.	Optimal allocation of scarce resources.
Definition of Thresholds and Environmental Norms	Scientific knowledge as input for public deliberation (procedural rationality).	Technic/scientific approach for determining thresholds and norms (instrumental rationality).

Source: Adapted fromPelenc et al. (2015).

2.3 Sustainable Development Goals

Moreover, planning for sustainability requires the use of programmatic approaches and strategies that favor long-term program maintenance (Shediac-Rizkallah and Bone, 1998), thus, the sustainable development is a long term strategy for the humanity – both individually and organizational level. Furthermore, national governments and international institutions can try to influence the behaviours and habits of people towards sustainability through the education and awareness raising also. Due to the unsustainable behaviour, Sustainable Development Goals (SDGs) were reformulated by the United Nations in 2015 (Global e-Sustainability Initiative 2017). The 17 redefined Sustainable Development Goals can be seen in Figure 3.

Source: United Nations (2015).

Figure 3. Sustainable Development Goals

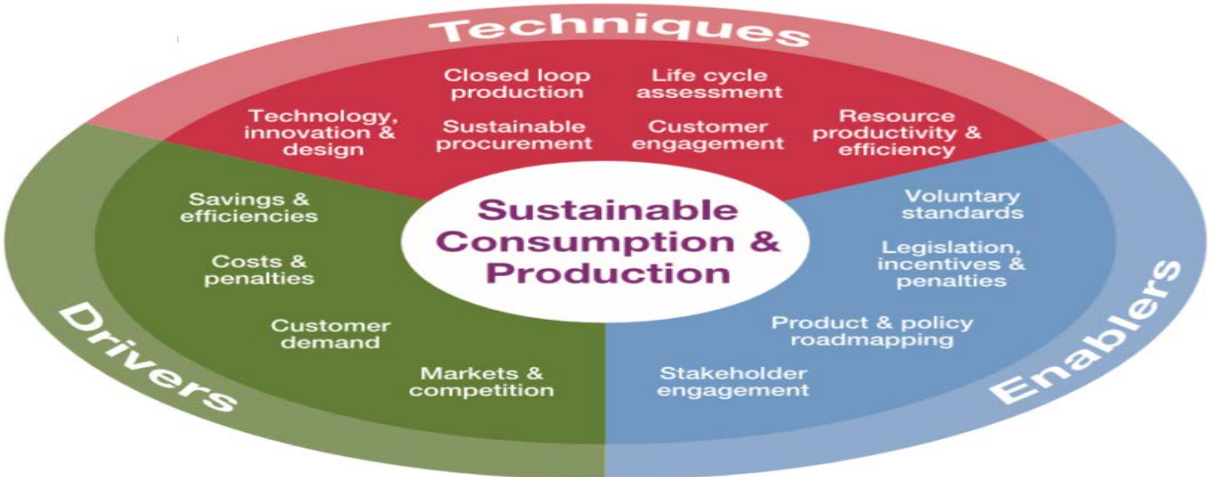
3. Sustainable Consumption

Promoting sustainable consumption and production are important aspects of sustainable development, which depends on achieving long-term economic growth that is consistent with environmental and social needs (OECD, 2008). More and more international policy organizations and national policy makers have become to recognize and realize that current consumer patterns and habits are not ecologically sustainable anymore (Lim, 2017). Nevertheless, policy makers across the world are facing the challenge of encouraging people to engage in sustainable consumption behaviour (Sharma and Jha, 2017).

Original working definition of sustainable consumption proposed by the Soria Moria Conference (1994) as “the use of goods and services that respond to basic needs and brig a better quality of life while minimising the use of natural resources, toxic materials and emissions of waste and pollutants over the life cycle, so as not to jeopardise the needs of future generations” (UNCSD, 1994).

Based on the study of Sharma and Jha (2017) who summarized the most relevant approaches of sustainable consumption, there are some researchers who determine sustainable consumption behaviour as an act of voluntary simplicity or anti-consumption (Shaw and Moraes, 2009; Black, 2010) whereas others explain it as the adoption of green lifestyle practices (e.g. Gilg et al., 2005). Diverse views make sustainable consumption behaviour a complex phenomenon to explain and predict. According to some marketers and policy makers it is necessary to understand social and institutional actions that may encourage the progress of environment-friendly behaviour among consumers (Vlek and Steg, 2007; Phipps et al., 2013). Others have proposed an exploration of the role of personal values in influencing sustainable behaviours (Thøgersen and Ölander, 2002; Grunert and Juhl, 1995; Sener and Hazer, 2008). According to Zukin and Maguire (2004), consumption is a social, cultural and economic process of choosing goods which enables consumers to form and express their identity.

According to Sabapathy (2007) the essential challenge of sustainable consumption and production is how to de-link economicdevelopment from environmental degradation, in order to operate within the limits of the planet's ecosystems. Meeting this challenge will require technological innovation, rethinking current business models and political determination. The Author also summarized the most important drivers, enablers and techniques of sustainable consumption in Figure 4 (Sabapathy, 2007).



Source: Sabapathy (2007).

Figure 4. Techniques, Drivers and Enablers of Sustainable Consumption

As the main environmental consequences of unsustainable consumption, the resource abrasion, the excessive environmental pollution, hence the Earth's waste disposal capacity and the loss of biodiversity can be described. However, the unsustainable mode of consumption (both under-consumption and over-consumption) is not only an environmental problem, but it has also a number of unfavorable effects of social level:

- According to the Human Development Report published by UNEP in 1998, as a result of studying consumer patterns, emphasized that the security of the environment and the local economy in the under-consuming countries greatly influences the stability of food supply, which may have a serious impact on the frequency of poverty and the deterioration of the poor population (UNEP, 1998).
- Nevertheless, the over-consumption, which is associated with the short lifecycle of the products, also can lead to cultural endowment (UNEP, 2001).

It can be stated with confidence that unsustainable consumption has also an economic cost, as the economy relies on the ability of environment that provides it both natural resources and healthy human resources. If they are not solved or not insured, they have a significant impact on the efficiency and competitiveness of the economy (Csutora and Hofmeister-Tóth, 2011).

4. Global Consumption Trends and Challenges

The Oxford Commission's Sustainable Consumption forecasts has already warned in 2002 that current consumption is unsustainable because:

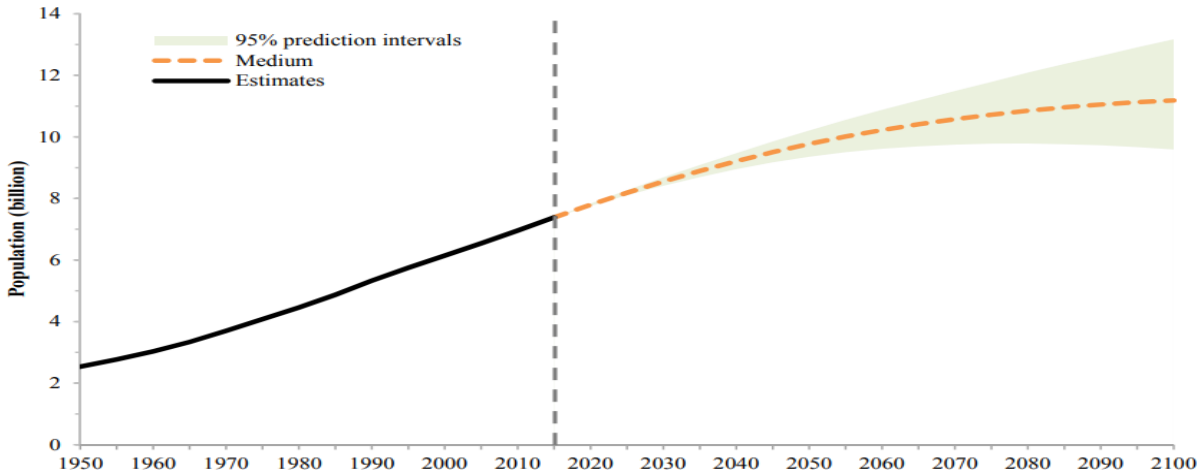
- Increasing consumption in industrialized countries does not increase the quality of life of the population, while the cycle of "work and shopping" only increases stress and dissatisfaction.
- The distribution of current consumption patterns is unfair among countries due to the large and ever increasing differences in income and quality of life.
- Increasing global environmental impacts are associated with the spread of resource-based consumption (Michaelis, 2003).

The different international policy organizations have already summarized the most important global consumer trends, however, this study is exclusively focusing on demographic changes, environmental degradation and changing economic factors as the key challenges of the sustainable consumption:

4.1 Demographic Changes

- World population growth

Nowadays, the world's population is continuously growing. Figure 5 demonstrates that the global population reached 7 billion in 2011 and it is growing by 1.10% per year, yielding an additional 83 million people annually. The world's population is projected toincrease by slightly more than one billion people over the next 12 years, reaching 8.6 billion in 2030, andto increase further to 9.8 billion in 2050 and 11.2 billion by 2100. Africa and Asia are expected to be the largest contributors to future growth (United Nations, Department of Economic and Social Affairs, Population Division, 2017).



Source: United Nations, Department of Economic and Social Affairs, 2017.

Figure 5. World Population Growth

- Increasing longevity and growth of life expectancy - globally, life expectancy at birth rose by 3.6 years between 2000-2005 and 2010-2015, or from 67.2 to 70.8 years. Furthermore, it is projected to rise from 71 to 77 years by 2050. Future growth will be influenced not only by future levels of fertility, mortality, and migrationbut also by the current age distribution of the world's population (United Nations, Department of Economic and Social Affairs, Population Division, 2017).

4.2 Economic Challenges

- Globalization

Considering the rapidly and continuously changing business environment, the impacts of globalization and digitalization, staying competitive is a great challenge. In the new, knowledge-based economy knowledge transfer has a continuously increasing role – due to the different types of Information and Communications Technologies (ICT) knowledge can be more easily identified, captured, organized, created, learnt and disseminated globally (regardless time and location). At the same time, innovations and technology developments continue to be concentrated in a small number of advanced economies. Moreover, the changes in global production are reflected in changing global trade patterns (United Nations, 2013).

- Financialization

Financial globalization has led to rapidly increasing and more volatile international capital flows, macroeconomic imbalances and more frequent crises (United Nations, 2013).

- Changing Consumer Behaviour and Lifestyle

According to the forecasts, the number of middle-class consumers will rise to three times by 2030 (an additional 2 billion people compared to the current), ie. the middle class will account for 80% of the total population. Two-thirds of the world's population is currently supplied by low-income consumers whose consumption structure based on the food with highest weight (WBCSD, 2008).

4.3 Environmental Degradation

One of the most important challengesrelated to the natural resources is the scarcity. Some of these resources have a limited quantity, and it is the common responsibility of the different economic actors to solve the problem. The influence and change of the different economic actors' behaviour will have an impact to all key pillars of sustainability. For example, more fruit and vegetable consumption requires us to produce more products which would lead to the needs of more water, more soil and land which is not possible without significant environmental effects and these effects react to the health condition again (as a loop). Similarly, long term lifestyle changes would require more technological developments and also several sub-political interventions would be essential in the economy in the future. However this section will exclusively focus on the water and its relation to the sustainability, as an example of natural resources.

According to the United Nations (2015) water is at the core of sustainability and is critical for socio-economic development, healthy ecosystems and for human survival itself.Water is also vital for adaptation to climate change, serving as the crucial link between the climate system, human society and the environment. The most important facts, trends and challenges are listed below:

- Today, more than 1.7 billion people are living in river basins where water use exceeds recharge, leading to the desiccation of rivers, depletion of groundwater and the degradation of ecosystems and the services they provide.
- Global water demand is estimated to increase by 55% by 2050. Similarly, by 2025, two thirds of the world's population could be living in water-stressed countries if current consumption patterns continue.
- The economic loss from the inadequate delivery of water and sanitation was estimated to amount to 1.5% of GDP.
- 80% of wastewater is discharged without treatment.
- 748 million people still do not have access to an improved drinking water source and 2.5 billion people will be without access to improved sanitation.
- Water-related disasters are the most economically and socially destructive of all natural disasters.
- If we look at the different sectors' contribution, it is obvious that agriculture is by far the thirstiest consumer of water globally, accounting for 70% of water withdrawals worldwide. By 2050, world agriculture will need to produce 60% more food globally, and 100% more in developing countries. Therefore, more consumption will require more water that will have other environmental impacts also. Industry and energy sectors account for 20% of water demand. More-developed countries have a larger proportion of freshwater withdrawals for industry than less-developed countries, where agriculture dominates. Domestic sector accounts for 10% of total water use.

5. Opportunities for the Future – Contribution of Economic Actors

5.1 Responsibility of Individuals

There is no doubt that the key of sustainable consumption is the consumer itself and the conscious consumer behaviour. Environmental awareness characterized by Zsóka (2007) through ecological knowledge, environmental values, attitudes and willingness to act. Health conscious behavior involves all consumer attitudes, behaviors, behaviors and activities that aim to achieve a longer and healthier life, whether taking health considerations into decision-making, conscious nutrition, healthy lifestyle, or healthcare informed consumer behaviour (WHO, 2016).

Environmentally conscious consumers are able to offset some of their environmental impacts by purchasing green products. Individual eco-conscious behaviors and strategies may be more moderate in terms of environmental exposure than non-environmentally behaviors, however, this cannot fully counterbalance the environmental impacts determined by the socio-economic structure and the income level, which means that consumers with higher incomes often cause greater environmental impacts and larger ecological footprint. Similarly, the environmental impact of higher-income countries is

largerdespite that their citizens are more environmentally conscious and their environmental policies are more developed.

The following list written by Trott (1997) consist of examples of opportunities to raise the awareness of individuals:

- Education and training

The relationship between education and sustainable development is complex. Generally, researchers stated that basic education is the key to a nation's ability to develop and achieve sustainability targets (UNESCO 2005). The concept of Education for Sustainable Development (ESD) was mentioned and firstly discussed at the World Summit on Sustainable Development held in 2002. According to UNESCO (2005) ESD consists of the following five elements:

- education that allows learners to acquire the skills, capacities, values and knowledge required to ensure sustainable development;
- education dispensed at all levels and in all social contexts (family, school, workplace, community);
- education that fosters responsible citizens and promotes democracy by allowing individuals and communities to enjoy their rights and fulfil their responsibilities;
- education based on the principle of lifelong learning; and
- education that fosters the individual's balanced development.

- Human health

Improved health, building health awareness, or health promotion and disease prevention enable us to reduce the need to consume health product and services and enhances our ability to participate in society.

- Motivation

Due to the widespread use of social media, health 2.0 is now commonly used terminology. Last few years brought the phenomenon and use of the social media to the mainstream of health communication, information generation and dissemination. Similarly, the patients have been becoming from to information generators and sharers from the simple consumers of Internet content. The commercial operations can help the organizations to make their consumers more conscious and motivated both in their family life and during their work.

5.2 Responsibility of Businesses and their Stakeholders

Making consumption more sustainable will require changes to the systems in which businesses and government operate: a change to much longer time horizons than most businesses and governments currently consider; changing accounting systems to account for externalized costs; and changing accounting systems to capture measures of human well-being and the degree to which society's goals are met through economic activity, as opposed to merely measuring the volume of economic activity (Allaway and Kochan, 2012). It can be clearly seen that the role of government and non-governmental organizations and other businesses is also huge in the development of sustainable consumption - changing the individual consumption patterns requires different government measures. Policy makers need to design their programs and communication strategies such that they are more efficient and effective (Sharma and Jha, 2017). There are many tools available to policy makers from soft, influential measures (such as guidelines, corporate reports) to hard, coercive measures (compulsory rules, laws etc.). The following list summarizes the most frequently used examples:

- marketing devices – information leaflets, campaigns, media and advertising, PR, labeling of goods, recommendations etc.
- regulation – different laws, compulsory standards, licenses, international agreements, national policies, sectoral policies etc.
- financial devices – taxes (e.g. eco-taxes), supports, other fiscal measures. For example the national government can support and stimulate the use of different renewable resources such as the use of sun collectors in Hungary.
- through the physical structures
  - urban design: land use planning has emphasized the rate of urban and suburban areas and nature.

- transportation systems – for example, it is necessary to deal with the pollutants of the huge number of cars worldwide and providing infrastructure such as appropriate public transport.
- resource management – extensive extraction and use of natural resources (minerals, water, land and air) result in a perceived right to free access and use, thus pollution and waste etc. that require greater consumption to mitigate (Trott, 1997).

- CSR (corporate social responsibility) – through innovation, choice influencing (use of marketing and awareness-raising campaigns), choice editing (the removal of unsustainable products and services from the marketplace).

6. Conclusion and Recommendations

Likely, the most important challenge to sustainable development to have arisen in the last decades is the unfolding global ecological crisis that is becoming a barrier to further human development. From an ecological perspective, the sustainable development efforts have not been successful yet. Based on the related literature and global consumer patterns it can be stated, on one hand, there is no integrated and unified measure to promote the change of consumption patterns and, on the other hand, the progress made so far in the last few decades is marginal. The abovementioned consumer patterns can be modified several ways. Primarily, due to the scarcity of natural resources the price is continuously increasing that stimulates people to save, thus influences the consumers' habits and behaviours. Secondly, different measures of the governments or education can promote the awareness of the population.

The present work also supported the importance of the different economic actors in contribution to the sustainable consumption. Global consumer patterns demonstrate that our current consumption is unsustainable, therefore a number of critical areas has to be changed to find the most appropriate solutions.

References

Allaway, D. and Kochan, L. (2012). Literature Review: Key Challenges in Sustainable Consumption. (Accessed: 2018.03.10). Retrieved from: http://www.oregon.gov/deq/FilterDocs/2050-KeyChallengesSustCons.pdf

Barcan, C. (2016). How to Identify Your Brand's Sustainable Pathway. (Accessed: 2018.03.05). Retrieved from: http://www.vinylinfo.org/news/how-identify-your-brand%E2%80%99s-sustainable-pathway

Black, I. (2010). Sustainability through anti-consumption. Journal of Consumer Behavior 9(6): 403-411.

Crittenden, V. L., Crittenden, W. F., Ferrell, L.K., Ferrell, O. C., and. Pinney C. C. (2011). Market-Oriented Sustainability: A Conceptual Framework and Propositions. Journal of the Academy of Marketing Science 39: 71-85.

Csutora, M. and Hofmeister-Tóth, Á. (2011). Sustainable consumption? The economic questions of sustainable consumption (in Hungarian). Budapest: Aula Kiadó.

Daly, H. E. (1996). Beyond Growth: The Economics of Sustainable Development. Boston: Beacon Press.

Gilg, A., Barr, S. and Ford, N. (2005). Green consumption or sustainable lifestyles? Identifying the sustainable consumer. Futures 37(6): 481-504.

Global e-Sustainability Initiative (2017). Summary Report. #SystemTransformation. How digital solutions will drive progress towards the sustainable development goals. (Accessed: 2017.09.17). Retrieved from: http://systemtransformation-sdg.gesi.org/160608_GeSI_SystemTransformation.pdf

Grunert, S. C. and Juhl, H. J. (1995). Values, environmental attitudes, and buying of organic foods. Journal of Economic Psychology 16(1): 39-62.

Hart, M. (2017). Sustainable measures. (Accessed: 2017.10.10). Retrieved from: http://www.sustainablemeasures.com/node/26

KesziSzeremlei, A. and Magda, R. (2015). Sustainable production and consumption, Visegrad Journal on Bioeconomy and Sustainable Development 42: 57-61.

Lim, W.M. (2017). Inside the sustainable consumption theoretical toolbox: Critical concepts for

sustainability, consumption, and marketing. Journal of Business Research 78: 69-80.
Mancebo, F. (2013). Développement durable. Arman Colin, 2ème edition: Paris.
Meadows, D., Randers, J. and Meadows, D. (2005). The limits to growth after 30 years (in Hungarian). Budapest: Kossuth Kiadó.
Michaelis, L. (2003). The Oxford Commission on Sustainable Consumption. Journal of Cleaner Production 11: 931-933.
OECD (2008). Promoting Sustainable Consumption. (Accessed: 2018.03.20). Retrieved from: https://www.oecd.org/greengrowth/40317373.pdf
Pelenc, J. Ballet, J. and Dedeurwaerdere, T. (2015). Weak Sustainability versus Strong Sustainability. (Accessed: 2018.03.20) Retrieved from: https://sustainabledevelopment.un.org/content/documents/6569122-Pelenc-Weak%20Sustainability%20versus%20Strong%20Sustainability.pdf
Phipps, M., Ozanne, L., Weaver, T. et al. (2013). Understanding the inherent complexity of sustainable consumption: A social cognitive framework. Journal of Business Research 66(8): 1227-1234.
Sabapathy, J. (2007). Sustainable Consumption and Production. Cambridge: University of Cambridge
Sener, A. and Hazer, O.(2008). Values and sustainable consumption behavior of women: A Turkish sample. Sustainable Development 16(5): 291-300.
Sharma, R. and Jha, M. (2017). Values influencing sustainable consumption behaviour: Exploring the contextual relationship. Journal of Business Research 76: 77-88.
Shaw, D. and Moraes, C. (2009). Voluntary simplicity: An exploration of market interactions. International Journal of Consumer Studies 33(2): 215-223.
Shediac-Rizkallah, M.C. and Bone, L.R. (1998). Planning for the sustainability of community-based health programs: conceptual frameworks and future directions for research, practice and policy. Health Education Research 13 (1): 87-108
Thøgersen, J. and Ölander, F.(2002). Human values and the emergence of a sustainable consumption pattern: A panel study. Journal of Economic Psychology 23(5): 605-630.
Trott, M. (1997). Sustainable Consumption: Issues and Challenges. (Accessed: 2018.03.30). Retrieved from: http://www.indeco.com/pdfs/sc.pdf
UNCSD (1994). Report of the Commission on Sustainable Development on its Second Session. New York: Press of United Nations.
UNESCO (2005). UNESCO and Sustainable Development. Paris: UNESCO
UNEP (1998). Human Development Report 1998. New York: Oxford University Press.
UNEP (2001). Consumption Opportunities: Strategies for Change — A report for decision-makers. Paris, United Nations Environmental Programme, Geneva, 69p.
United Nations (2013). World Economic and Social Survey 2013: Sustainable Development Challenges. New York: United Nations Publications.
United Nations (2015). Water and sustainable development. (Accessed: 2018.03.28). Retrieved from: http://www.un.org/waterforlifedecade/water_and_sustainable_development.shtml
United Nations Department of Economic and Social Affairs (2017). World Population Prospects: The 2017 Revision, Key Findings and Advance Tables. Working Paper No. ESA/P/WP/248
Vlek, C. and Steg, L.(2007). Human behavior and environmental sustainability: Problems, driving forces, and research topics. Journal of Social Issues 63(1): 1-19.
WBCSD (2008). Sustainable Consumption Facts and Trends from a Business Perspective. (Accessed: 2017.01.05)Retrieved from: http://www.wbcsd.org/Clusters/Sustainable-Lifestyles/Resources/Sustainable-Consumption-Fact-and-Trends-From-a-Business-Perspective
WCED (1987). Report of the World Commission on Environment and Development: Our Common Future. p. 43.
WHO (2016). Health Impact Assessment. (Accessed 2016.10.05). Retrieved from: http://www.who.int/hia/evidence/doh/en/
Zukin, S. & Maguire, J.S. (2004). Consumers and consumption. Annual Review of Sociology 173-197.
Zsóka, Á. N. (2007). The prerequisite of sustainable consumption: the environmental conscious sustainable consumption. In: Gulyás, E. &Vadovics, E. (eds.) FenntarthatófogyasztásMagyarországon 2007. Budapest.