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BUSINESS MOTIVATIONS TO EXPAND THE GLOBAL ENVIRONMENTAL MARKET (GEM) AND ENVIRONMENTALLY FRIENDLY PRACTICES

Abstract: Sustainable Development, although universally accepted as the global big idea, for decades has not been successfully implemented by business companies as major actors responsible for the adverse environmental and social impacts. The new Millennium signaled the breakthrough processes indicating the growing interest in changing the rules of the game: raising customers awareness leading to environmental market appearance, tightening regulations leading to streams of exogenic innovations, growing awareness and competitiveness pressures leading to endogenic innovations, building supportive institutions on all levels, from global ones to local NGOs, self governments and local societies, new financial markets for socially responsible investing. Barriers one after another are being overcome not only in developed countries but also gaining importance in emerging markets. Not every participant is able to build competitive advantages within this demanding new area for growth and be able to achieve profits. The major problems are: to make environmental protection and social capital important values in running business, to focus on environmentally inspired innovations, overcome inertia of existing offers and practices, identify and manage new risks, as well as balance costs and benefits through building institutional platforms and collaborative networks representing the potential to make a difference.

Key words: sustainable development, environmental awareness, business sustainability, global environmental market, competitive strategy

INTRODUCTION

Transition to a New Society is a multistage, long-distance and multidimensional process full of controversies, conflicting interests and hopes. New Millennium was the occasion for evaluation of the past and opening the new era of increased focus on natural environment as the critical area for running any human activity¹.

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¹ According to J. R. McNeill [1] the XX – century was really different from the past in terms of the dimensions of environmental change, e. g. energy consumption in that age was ten times higher than the whole energy consumption until 1900. More important were the

This article is aimed at pointing out the breakthrough in the environmental awareness of individuals, political leaders, regulators, and, first of all, business organizations changing their patterns of behavior. There are different motives behind this shift, which itself is a very difficult and usually long lasting process, due to its extreme complexity and limited specific knowledge on natural environment and society to be converted into new types of capital and integrated with management practices. The high level of uncertainty, where the results are not foreseeable and their likelihood is unknown, creates the perception of risks difficult to manage, as many of them seem to be out of control. Such situation calls for new types of innovativeness and controls.

Nevertheless, there is a visible progress in terms of environmental progress despite of the "Litany of our ever deteriorating environment" [2] and in terms of numerous green institutional initiatives at all levels: global, international, regional, country, local, individual. On the other hand, the evaluation of the state of environment year by year proves that the progress is not sufficient. The humanity and numerous precious natural treasures are still endangered due to unsustainable devastating growth practices, so the future generations may never see them in their full beauty and tremendous values for the whole population. The decisions should be based on setting priorities and risks, weighing risks, evaluating the costs of interventions compared to real benefits. Giving priority only to profits at the cost of population and nature is no longer a legitimate practice. However, striving for profits and environmental care only may lead to dehumanizing growth pattern. In such a case the big question should be: for whom is this growth? On the other side, ignoring economic priorities usually leads to lack of sustainability because of the shortage of funds to carry on any activity. When Stuart Hart for the first time introduced the concept of sustainable development to the enterprise, he pointed out its three major objectives: eco-efficiency, socio-efficiency and eco-justice. [3]. Observed dominating patterns of business behavior at that time embraced doing business-as-usual, with the state being responsible for all externalities The next stage moved the partial obligations for the state of environment to business with the requirement of compliance with more stringent law (legalistic behavior), to the present expectation of fully responsible behavior shaped in dialogue and partnerships with other stakeholders.

This radical shift can be achieved only with wise political and business leaders representing the global mindset with universal human values driving actions. Intellectuals have been always stressing the need for shaping values attributed to esthetics and ethics as fundaments of making more sensitive political and business decisions based on the responsibility principle. However, globalization followed by the recent political, economic, and social trends in the fast growing group of new emerging economies of large countries, like BRICS, creates new pressures on na-

interactions of environmental pressure with population growth, migration, technological change, industrialization, international politics and ideas, with numerous "feedback loops" into the realm of environmental policies.

ture. Countries not being able to force growth are generally starving, what in turn creates the global problem.

Assuming that business is the most powerful driver of change both, in environmental pressures and environmental release through socially and economically responsible management and innovations, this is the high time to consider the evolution of business motivations and their sustainability on the long run.

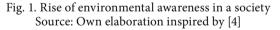
1. THE ENVIRONMENTAL AWARENESS

There is no substitute for natural environment, as it is the only one that supports life. This true has been ignored for ages in the human strive for wealth creation at the cost of environment, until the time, when the adversary impacts mainly created in densely populated regions, large-scale industries with harmful technologies, and agriculture intensively using water, soil and chemistry to raise crops, caused the growing environmental awareness in the society (Fig. 1).

Alerting signals in heavily polluted regions created the rise of shared discontent, which in turn inspired to acquiring knowledge about the real state of environment, its measurement, identification of stressors, their direct outcomes and longterm impacts confronted with the demonstrated need for clean water, green forests, non-polluted air, healthy food, decent living, safety, clean energy, and protection of biodiversity in the world of flora and fauna. Problems confronted with needs created the area for actions. Satisfying these needs required the necessity to identify and change behavioral patterns of environmental destructors. The decisive power at this stage, wherever it is a case, belongs to the political institutions capable to introduce regulations encouraging and rewarding positive expected behaviors while at the same time punishing violators. The signals should be clear for all to be accountable for their overall performance. The visionary business leaders on their own also search for feasible more environmentally friendly solutions, thus responding in a profitable way to new emerging megatrend of sustainability and start organizing supportive institutions like World Business Council for Sustainable Development.[5].

Instruments elaborated by environmental economists and popularized within OECD frameworks, such as fees (for emissions, services, production, administrative, tax differentiation), subventions (donations, preferential credits, tax reduction), deposit systems, penalties, and finally environmental liens, allowed to induce expected behaviors. [6]. It was usually treated as an additional cost of compliance reducing the business benefits and adversary influencing competitiveness, so defensive strategies were pretty common. The mainstream of companies responds to new legislation at the minimum level of compliance. However, the process of tightening regulations usually has some additional consequences: high investment costs of business adjustment, economic elimination of non complying businesses or administrative cancelling their "licenses to operate". Indirectly it results in reducing the competition, so the bigger market players started being interested in strengthening their own position through introduction of more rigorous standards.

Coordination/Cooperation/ Selfregulation - Common acceptance of environmentally friendly behavior, environmental strategies and management systems - Endogenous green innovations - Partnerships in supply chains, industry, region	R
• Resistance of polluters • Birth of new green competition • Exogenous innovations as business adjustment • NGOs as partners	o a d M
• Rise of social pressure for clean, sustainable and healthy environment • Call for policy response • Organized actions	a p T o
•Perceived value of nondegradated environment •Early calculations of benefits/costs	S u s t a i
•Social perception of the degradated environment impacts •Early calls for change	n a b i l
Alerting signals of environmental degradation •cumulation of information on degradated environment •no reaction	i t y



At present the perceptions have evolved and bring more positive proactive responses of businesses resulting in new streams of exogenous innovations induced by new legislation and new corporate and business strategies. This, in turn, creates new markets and new space for competition, where environmental innovations allow to set up new competitive differentiators. The most awaited instrument, opening new business horizons, without any doubt, is the creation of new markets, at the beginning supported by governmental subsidies and procurement. It used to be effective in the situation when, for instance, the demand for renewable energy or organic food is not likely to start up because of high costs of their development (small scale, high price, and low customer awareness). The idea behind this is to create initial demand, encourage business to invest with some additional support, and when the market is developed, to let the market rules govern and influence business and customers' decisions.

The next step is when business acts in accordance with social expectations and complies to regulation or even goes beyond that minimum. The most expansive companies perceive in environmentally friendly products, services and markets as the never-ending space for growth and value creation. Natural environment becomes the source of deep scientific research and imitation of evolution discoveries in manmade products and services. The regulation becomes less relevant, it is rather replaced by self-regulation with very high environmental standards, difficult to attain by others. As it is very challenging, the key issue is the access and control of specific resources, not only financial and tangible, although some of them have unquestionable value in view of new technologies development (e. g. rare earth metals for producing batteries needed in all electronic devices). Also social, organizational, and human capital with unique knowledge creation capabilities are new drivers getting importance. Besides, traditional strategies at the corporate, business and functional levels have to be re-thought. Such new phenomena as strategic alliances, co-opetition, social networks, global supply chains and networks, breakthrough technologies and intelligent (smart) materials, open innovations, and many other drivers create the new rules of the game where the cooperation, coordination and self regulation allow for relative lowering the overall costs of this immense change. Without creating platforms for such change it will be probably very difficult, if not impossible, to happen. Sustainable development as a goal requires integration of diverse aspects of business into a cohesive concept accepted and supported by the society.

This multi-stage process in countries at the lower levels of sustainability ladder still is at its beginning, while developed countries are forcing more advanced technologies; institutional policies, environmental standards, and business practices with low impact on natural resources due to knowledge based and socially supported innovative ways of satisfying needs. [7]. This is the base for contemporary competitive advantages requiring unique sets of competences in business, social and environmental areas.

2. BETWEEN COMPLIANCE AND COMPETITIVE ADVANTAGE

All companies, regardless of their market position, are expected at minimum to comply with existing legislation. The most progressive ones set up and go beyond obligatory standards, thus building new types of competitive advantages. Followers make this trend even more attractive, so the environmental niches of the traditional markets become larger and larger. Traditional businesses attempt to defend their positions, what at the beginning is easy, especially on the price-sensitive markets, where other factors do not matter.

Business motivations to support environmental market growth vary depending from the relationship between the company and natural environment which, in general, has three utilities: supports life processes, supplies raw materials and energy to fuel production and consumption, and finally accumulates and neutralizes wastes. From this point of view three types of companies are important:

1. Businesses based on the direct transformation of natural resources and/or depositing high volumes of wastes difficult to neutralize without special infrastructure, e. g. quarrying industries, paper, chemical, cement, conventional energy, intensive agriculture. Due to their large-scale operations, their impact is the subject of attention and pressures from administrative bodies, NGOs, local communities, and also international institutions, what becomes the more and more important source of harmonization by member countries of EU (or other blocks). Such companies frequently originate such programs as *Responsible Care* in chemical industry. They are interested in greening their operations through process improvements wherever possible in a cost-effective way. They create the market for environmental products and services, both as its clients and suppliers. Efficient solutions in energy, water, raw materials, pollution and waste management arise in result of more stringent regulations and own search for innovations. It starts with small experiments and gets scale as long as the new competences are fortified and start bringing benefits.

2. A new array of environmental start-ups paves the way for new stream of initiatives, although many of them are technical and market failures, while others successfully lead the progress or supplement leaders with specialized services or materials, e. g. smart meters, specialized cleaning services, recycling technologies, EIA services, quality and safety certification, new packaging, detection of leakages, decommissioning of old manufacturing and energy plants, purifying potable water, developing new solutions for sewage water treatment. Organic farming and ecological education aimed at changing our habits for more sustainable and healthy create new lifestyles and fashion. This list is endless and all time evolving towards higher eco-efficiency solutions.

3. Businesses with moderate use of natural resources and depositing substantial wastes but not requiring special infrastructure and neutralization processes, as they could be handled together with communal wastes. Here are: retail malls, furniture production, food processing, restaurants, etc. They depend from good relationships with local governments and communities in regards to localization decisions.

4. Businesses and institutions with minor impact on environment, such as universities, banks, services. Their demand for natural resources, media and waste management, in individual case is not a problem, but when located in the cities, the accumulation of demand for communal services and media services creates the large market for this type of services so it should be competently handled by the city hall contractors. On their side they change patterns of behavior in using natural resources and media for saving and optimizing mode.

5. Public institutions and self-governments who decide on communal services, such as lighting, water supplies, waste management, energy supplies, noise reduction, cleaning services, maintaining greenery etc. They can optimize the budget allocation if invest in innovative solutions. According to Phillips Lightening cities can reduce 30- 80% of their spending on energy if invest in modern intelligent lightening systems.

There are endless examples of environmental management concepts, strategies and successes in all continents, countries, industries, companies of all size and age. The big picture shows the progress from niche markets and interest to broad market and standards. In the report of UN Global Compact – Accenture from 2010 [8], there is a statement about the breakthrough in the role of sustainability in business development. While in 2007 it was still a peripheral phenomenon, in 2010 93% out of 766 CEOs, members of Global Compact, pointed out sustainability as the main challenge in view of expected benefits, such as new markets and demand, new business models and sources of innovations, change of cost structures in industry, and impact of environmental strategies on all operational areas in business. The change of attitudes in the opinion of 72% of respondents was caused by the need to restore trust, corporate reputation and brand value after the crisis, and in an authentic, not superficial, way.

Also other leading consulting companies, such as McKinsey or Roland Berger strategy consultants, point out the sustainability impact on branding value. Expectations concerning energy, environmental policies, regulations, procedures and practices are rapidly changing, what makes nowadays environmental sustainability a mandate for global business, like IBM "Green and Beyond" program, what means an imperative of conservation, pollution prevention, and most of all the new propositions of building value and benefits to numerous stakeholders, including profitability for shareholders. This space of growth inspires visionaries to look for lower costs, lean and sustainable operations, strengthening brands and reputation, while meeting government regulations and more stringent standards. General Electric is successfully continuing its Ecomagination strategy, which especially in the energy industry can make a breakthrough. As they point out "Todays ecomagination expands our view from "traditional" sustainable technologies like wind, solar and fuel cells to solutions for heavy industries like mining, unconventional resources, and oil and gas". [10], Du Pont forces the strategy and platforms of sustainability by modeling their core strategies based on integrated knowledge and intensive innovations applied to three growth platforms: materials and their properties, safety and protection, and surfaces and painting technologies.[11].

Also new born businesses join this movement. One of the winners of the environmental mega-trend is the Chinese company Changchun Dacheng, an industrial group transforming corn wastes, previously burnt after the harvest, into valuable components for pharmaceutics, cosmetic and food supplements, such as l-arginine hydrochloride, modified starch, l-lysine sulphate, malto dextrin, and mono chloride products used in livestock feed. It has been founded by the Chinese government in this poor agricultural region in 1996. After a few years it became one of the most important world suppliers. The company started attracting foreign investors due to environmentally friendly technology, considerable cost reduction compared to oil based substitutes, and provides vast benefits to the region where the whole modern infrastructure has been developing and the new job market for educated people capable to work out the upstream portfolio of products. The *Fast Company* journal evaluated Changchun Dacheng as one of the fastest growing companies in the world located in an expanding business park in central China. Nowadays it is a subsidiary of Global Bio-chem Technology Group Company Ltd.

There is an endless list of eco-preneurs in all continents starting their small businesses and thus creating new type of employment.

The progress would not be possible without the financial market broadening its expertise and forms of supporting the specific needs of sustainable enterprise and ventures. One of them is the specialized financing mechanism, known as Socially Responsible Investments (SRI), including financial markets into the global scheme of creation the sustainable development with the strong support by expert institutions. SRI are expected to exceed the 20% niche in 2020 already.

3. DRIVERS OF ENVIRONMENTAL ENGAGEMENT

Environmental destruction cannot be stopped without the global engagement of all inhabitants and institutions they create to satisfy their needs. These institutions are either specializing in green issues or are the traditional ones on their road of greening to meet new challenges. Evidently this landscape is not transparent due to numerous fields of expertise and evolutions. One of the most influential global institutions is the UN Global Compact, a voluntary initiative that requires companies to engage by learning into living global corporate citizenship, setting standards, reporting according to a transparent reporting initiative (GRI) enabling international comparisons and measurement of progress.[12] However, even this organization alone is not able to secure the achievement of the very basic 8 Millenium goals referring to labor environment, human rights, poverty, health, education, and environment. The moving horizon is followed by the increased efforts in organizing cooperation among existing institutions to change the humanity "bottom line".

Another big initiative is the coalition of business companies gathered in World Business Council for Sustainable development (WBCSD). Activity of this organization is centered around such issues as measuring impact, driving action, understanding risk, optimizing business performance, scaling up, creating a sustainable world, collaborating and building trust. Present platform for coordinated activities aimed at sustainable business solutions is called Action 2020 carried on in partnership with the Stockholm Resilience Centre and the World Resources Institute. All recommended solutions should be based on science and preferably go beyond 2020. Among the clearly stated priority areas being the most important natural and social capital issues that must be addressed to achieve the sustainable future laid out in the Vision 2050 are the following ones: climate change, water, food, feed, fiber and bio-fuels, release of nutrient elements, basic needs and rights, ecosystems, skills and employment, exposure to harmful substances and sustainable lifestyles. Business Solutions are impactful, measurable, scalable, replicable and beyond business-as-

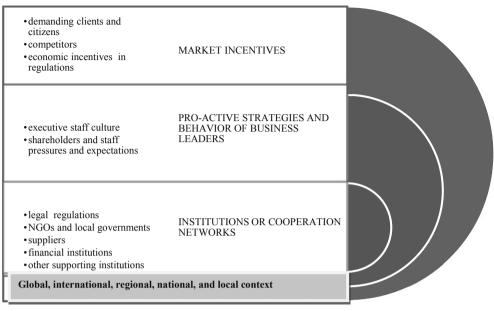


Fig. 2. Factors influencing business decisions on environmental engagement Source: own elaboration [14]

usual. The leading idea is leveraging the power of business to solve problems – to create Business Solutions. "The growing set of business solutions is being designed by business, for business, because the Societal Must-Haves won't be achieved unless the private sector gets involved. Together with policymakers and other change agents, we can achieve Vision 2050"[13].

In view of the entrepreneurial role of business and its impact, the motives behind decisions how to use, protect, and change environment are essential. They may be grouped in three categories: market incentives, pro-active strategies and behavior of business leaders, regulatory institutions and diverse partnerships (Fig. 2).

Management values supported by social and international pressures are the base for undertaking entrepreneurial ventures aimed at more efficient use of resources, restoring healthy ecosystems to sustain life and business growth, thus building welfare and safety of the society. Greening of existing businesses through their strategies and operations and green innovations of new start ups are likely to happen due to emergence of environmental market incentives and institutions promoting change through regulations, financial schemes, cooperation networks, and expertise. Management of sustainability will require growing concerns and capabilities to co-create and profit from the environmental market in the turbulent future to come. In view of the scale of efforts it is important to think and act in the mid – term period (2020) and in the long-term horizon (2050).

CONCLUSIONS

Sustainable development is the global giant challenge which should be addressed at all levels of human activities and from all relevant points of view followed by the power to make an impact: policy making, legal regulations, social pressures, market demand, competitive moves, international interdependencies and multilateral agreements, supportive institutions supplying money, knowledge, expertise and skills, lobbying and voting in favor of sustainability.

Corporate Social Responsibility (CSR) is the voluntary action-oriented trend in business aimed at going beyond business-as-usual, overcoming inertia and making transition to a new society feasible, controllable, and rewarding in all dimensions of the sustainable development: economic, social and environmental, as interdependent components of the same big idea. Any inconsistency can lower the results of the undertaken efforts, so the integrated solutions are the key issue. Responsibility should be thus followed by the accountability of business leaders. This requirement can be only met if it is based on science, social and political support, and leveraging the institutional cooperation of diverse stakeholders.

Transition to become reality should be designed in short-term, mid-term, and long-term with necessary search for the best solutions, innovations, and disciplined implementation with necessary adjustments for risks. Avery organization can undertake such efforts but not every effort will be a success in terms of eco-efficiency, socio-efficiency and eco-justice. The best conditions are created by platform solutions of cooperating businesses and other institutions who think broad and can share the investment and change efforts, if only they are able to agree on the most important priorities and risks, have sufficient understanding of their business environment, including industry-specific or region-specific problems. There is no problem with the lack of such institutions and platforms. It is rather the problem of mapping their existence and entering in working relationships on the level of real action making real impact. Institutional development enabled the weak as so far partners of the social dialogue to express their needs and voice in favor or against planned change.

Social preferences do not exclusively focus on environmental protection but on the ventures where there is an urgent and important need for improvement in an efficient way without making harm to other facets of sustainability.

Contributions to sustainable development are accompanied by the strategies for sustainability in large corporations, medium-sized companies and even small start-ups. Numerous examples prove that there is no better alternative than sustainable development, although it requires much broader, deeper and knowledge-based competences. In reward it brings better, more balanced and friendly local and global citizenship, less conflicts, satisfying returns and more optimistic and broad perspectives for our common future. Since everybody can be involved in this positive stream, acceptance for irresponsibility will be our joint failure.

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