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Organizational changes: new challenges in search for sustainability

Abstract

The paper aims to review the dominating literature and recent findings on organizational changes and sustainability strategy. The studies in the spheres of strategic management and organizational theories have common conceptual base, but different approaches to the key definitions identification. Sustainability age had transformed the perception of the best practices in markets, the winners in 80-ties were focused on costs leadership, today it is urgent to offer differentiated product that is sustainability-oriented. The studies in sphere of strategic management, organizational theories and social development theories were analyzed to accumulate the knowledge about the sources and content of organizational changes towards sustainability. Two types of barriers to transformation towards sustainability were analyzed through data comparison and previous findings accumulation and generalization. General recommendations for sustainable innovations creation are offered.

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Introduction

The strategic implementation and organizational changes are closely coupled since one leads to another. In modern turbulent business environments, the sustainability of development becomes the urgent task for the manager. One of the answers to this challenge is to construct the organizational architectonics in such a way that would allow modifying the organizational goals towards sustainability without key resources loss or competences leakage. As we assume from the market evidences of pioneers dominance (Golder &Tellis, 1993), the best way to adopt the changes is to become change leader and "order" the market transformations. But to do so, the historical chain of changes in the field of research and markets must be taken into consideration.

During the last several decades the strategy as a definition transformed significantly from the "pattern in a stream of decision" (Mintzberg, 1978) to Quinn's idea (1980) of logical incrementalism, and from the corporate strategy "fit" to the environmental changes to the strategy "stretch" between the vision and resources (Hamel & Prahalad, 2013). The market perception has been changed from the era of competitive advantage (Porter, 1980) to the hypercompetition concept of D'Aveni, where "no advantage is sustainable" (D'Aveni, 2010). The market shocks influenced the ways of strategic thinking of CEOs, and that preconditioned co-evolution of strategic management theories and the environment concepts. The link between business models and corporate sustainability (Schaltegger et al., 2016) is new emerging stream in research. While the dynamic role of the companies in transforming markets towards sustainability is proved to be significant as discussed in (Schaltegger & Wagner, 2011), at the same time the benefits of societal behavior is needed to be further investigated.

Meanwhile, the organizational changes studies are one of the most promising directions in the social science. When strategists develop the plan of actions, other important questions appear – the problems of careful transformations of the organizational patterns and procedures (Romanelli & Tushman, 1994), conflicts between transformational versus transactional leadership (Burke, 1986), problems of organizational performance evaluation (Pettigrew, Woodman, & Cameron, 2001), implementation of environmental goals into the strategic planning system (León-Soriano et al., 2010). We should say that field of study evolves dramatically through the accumulation of the knowledge from different fields: theory of firm, institutionalism, industrial management, behavior sciences, environmental entrepreneurship. The organizational change takes place in daily routine of any organization, and the clear framework of the strategic decisions is required to build-up the comprehensive model of diagnosing and reproducing the successful changes taking into account modern tendencies in a sphere of green innovations.

The paper is aimed at reviewing and synthesizing the ideas, views and findings from previous studies

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on organizational theories and strategy to identify new challenges in the field or organizational changes in terms of sustainability. To achieve the aim the paper is structured as follows. First, research methods are presented, and then in section 2, the brief overview of the approaches to strategy evolution is performed, with the hypothesis about the main barriers to sustainable entrepreneurship development. The third section contains organizational changes theory as a part of business models based on sustainability. The most publishing authors in several fields of research were examined. The discussion with new questions for further research is presented in the last section of the paper.

1. Research method

The paper is constructed as a synthesis of the contributions from previous studies on organizational theories, strategic management and sustainability entrepreneurship literature to integrate the view on market transformations towards sustainability. The papers in the field were read, summarized and compared to the data on Global Innovation Index, and data on organization mortality for micro-firms (self-employed entities). The assumptions about the transformation natures were aligned with preliminary data on dynamics in the industry.

2. Overview on strategy evolution towards sustainability

The appearance of the strategy as a corporate plan can be traced to the Stanford Research Institute Reviews, according to Hussey (Hussey, 1998) who was the member of the research group and worked with I. Ansoff at that time. Meanwhile other researchers were concentrated on the search of the answer to the problem of environmental uncertainty – to form the match of organizational resources with environmental opportunities (Lawrence & Lorsch, 1967), a strategy "fit" in other words. The first works in the field were presented by Chandler (1962) and Ansoff (1965) who became the pioneers in the strategy identification and involved numerous followers.

The era of 70s can be described as debates between those researchers who have teleological view on strategic changes and "emergent strategy" approach. Here we should mention Mintzberg (Mintzberg, 1987) and his followers, who argue that strategy appeared to be emergent, as a result of different factors and interactions between the components of organizational architecture and environment dynamism.

Michael Porter and his book "Competitive Advantage" (Porter, 1980) provided the dominant approach of identification of the key success factors and to formulate generic strategies. The view of firm as a value chain brought many new strategic patterns that became wide spread ploys around the world.

Despite the applicability of Porter's strategies and framework (e.g., Five Forces Model) to reality of the companies, the new challenges of 90-ties made researchers to reconsider the main aspects of the strategy development. Thus, Hamel and Prahalad assumed that there is no more place for the strategy "fit" but the company needs to construct the strategy "stretch" (Hamel & Prahalad, 2013) to overcome the gaps in industrial transformation. Whereas the debates about the core competences or resources as a key element for the competitiveness were taking place, the book of Branderburger and Nalebuff "Coopetition" (1992) had changed the perception of competitive games in general. And the research of D'Aveni proclaimed that there is no place for sustainable advantage anymore (D'Aveni, 2010), while Blue Ocean strategy concept (Chan Kim, & Mauborgne, 2005) urges that there are numerous opportunities to create one.

Considering the brief historical overview, we should admit that the essence of the strategy definition has been transfigured several times in response to rapid market transformations or "strategic windows" (term offered by Abell, 1978) which were opened quickly and unexpectedly ("dot-com bubbles" in 90-ties, market crashes in 2008, and coopetitive strategic alliances at present). Many scholars push for new designs in strategy (Herrmann, 2005) or even proclaim the myth of the existing ones (Rugman and Hodgetts, 2001), but the concept of sustainable development made strategists search for sustainability as for the firm itself and as for sustainability in global context. This unavoidable trends are based on stakeholders approach (Freeman, 1984), because nowadays stakeholders demand environmental improvements. Being powerful bargaining force, modern "sophisticated" stakeholder raises demands and therefore brings uncertainty and unsustainability into the organizational processes in economic sense, while they try to satisfy their needs in global sustainability. This desynchronization between the development vectors became new challenge for market players and brought new wave of sustainable entrepreneurship to life.

Meanwhile western scholars offer different classifications for the diversity of sustainable entrepreneurship forms (e.g., Schaltegger et al., 2016; Markman et al., 2016), environmental innovations are beyond the interests of main players in Ukraine. We see at least two

explanations for neglect of business models for sustainability in Ukraine.

Fist explanation – the mindset gap between lower-middle-income and high-income economies (countries, markets, industries). The Sustainability Transformations of markets are initiated by sustainable entrepreneurship that disrupts conventional production methods and consumption patterns, and replaces the market forces by offering products and services with superior sustainability. And we may agree with definition offered by Shaltegger and his co-authors (2016) that sustainable entrepreneurship is a "sustainability mission-driven process of solving environmental and social problems of unsustainability by means of the exploration and exploitation of market opportunities created with innovative business models" (ibid). But Ukraine, like other lower-middle-income economies, is challenging the problems of internal economic instability to overcome the weakness of institutional sphere, crisis of economic transitions and GDP losses due to exogenous shocks (e.g., war, reformations in Ukraine). To understand the difference between innovators, the biggest contributors into Sustainable Development and Ukrainian patterns, we may use Global Innovation Index (GII) methodology. This approach was launched by Professor Dutta in 2007 at INSEAD and now is developed and wide spread as ranking method by Organization for Economic Co-operation and Development (OECD). GII model deals with data about 127 countries/economies and operates with two sub-indexes – the Innovation Input and Innovation Output. One of the most representative indexes is Innovation Efficiency Ratio which is the ratio of the Output Sub-Index to the Input Sub-Index. The leading positions are belong to economies that show mature innovation systems with solid institutions and high levels of market and business sophistication, allowing investments in human capital and infrastructure "to translate into quality innovation outputs" (Dutta et al., 2017, p. 28). While the leaders are Switzerland, Sweden and Netherland among the high-income economies, Ukraine is in third group and has the 50th position among all economies and is called 'innovation achiever', according to GII methodology (see Table 1).

Being the innovation leader, Switzerland has overall international competitive advantage in science, technology and innovation that include environment and energy research plans and improvements. In Switzerland the share of environment-related activities in overall government R&D budget is lower comparatively to other OECD countries (OECD Review, 2017, p. 34), however the fostering eco-innovations is a mainstream in R&D. Of course, further research is needed to prove that the rapid growth of Swiss economy as innovator was caused by eco-innovations. But for now we may assume that the difference between environment-related achievements and the level of economy development can be explained by difference in strategic thinking between countries: while Switzerland builds the entrepreneurship towards sustainability in terms of sustainable development goals, Ukrainian firms tend to keep their sustainability in terms of organizational durability.

Table 1. Innovation achievers ranking according to GII methodology

Economy	Income group	Years as an innovator achiever (total)
Viet Nam	Lower-middle income	2017, 2016, 2015, 2014, 2013, 2012, 2011 (7)
Kenya	Lower-middle income	2017, 2016, 2015, 2014, 2013, 2012, 2011 (7)
Moldova, Rep.	Lower-middle income	2017, 2016, 2015, 2014, 2013, 2012, 2011 (7)
India	Lower-middle income	2017, 2016, 2015, 2014, 2013, 2012, 2011 (7)
Armenia	Lower-middle income	2017, 2016, 2015, 2014, 2013, 2012 (6)
Ukraine	Lower-middle income	2017, 2016, 2015, 2014, 2012 (5)
Rwanda	Low income	2017, 2016, 2015, 2014, 2012 (5)
Uganda	Low income	2017, 2016, 2015, 2014, 2013 (5)
Mozambique	Low income	2017, 2016, 2015, 2014, 2012 (5)
Malawi	Low income	2017, 2016, 2015, 2014, 2012 (5)
Senegal	Low income	2017, 2016, 2015, 2014, 2012 (5)
Tajikistan	Lower-middle income	2017, 2016, 2013 (3)
Malta	High Income	2017, 2016, 2015 (3)
Madagascar	Low income	2017, 2016 (2)
Bulgaria	Upper-middle income	2017, 2015 (2)
Burundi	Low income	2017 (1)
Tanzania, United Rep.	Low income	2017 (1)

Source: Dutta et al. (2017).

Previous studies used economies of scale as argumentation for explanation that large firms are more innovative because of their broader resource base (Kamien & Schwartz, 1982) and we may assume that the same logic can be used for the explanation of the differences between economies. However, rapid growth of Japanese economy and Singapore phenomenon proved the inapplicability of resource-based approach for explanation of the innovation dynamics, and these cases illustrate the dominating role of mindset in strategic changes.

Second explanation – the difference in institutional dynamics (countries, markets, industries). The more unfavorable environment is, the more the organization strives towards economic durability instead of sustainability.

The organizational mortality data may prove this thought indirectly. After the changes in tax system that took place on December 27, 2016, the number of self-employed entrepreneurs reduced by more than 400 thousand firms (Opendatabot Data). On this day president changed the conditions of functioning of self-employed entities which should pay tax in amount of 704 UAH per month even if they have no profit. This initiative was made to reduce the shadow economy in the country, but reduced the number of small firms instead. In Table 2, the data about organizational mortality are presented by regions.

Table 2. The data about self-employed entities shut-downs in Ukraine, rated by the mortality dynamics (period from December 27, 2016 till December 5, 2017)

Oblast/ region	The number of entities existed before	The number of shut-downs	Share in total (%)
Kiev	299 213	60 727	20
Dnipropetrovsk	145 051	35 595	25
Kharkiv	155 964	33 968	22
Odessa	133 035	25 550	19
Lviv	108 811	25 330	23
Zaporizhia	77 896	19 875	26
Vinnytsia Oblast	76 189	18 894	25
Donetsk Oblast	115 843	14 776	13
Zakarpattia Oblast	58 243	14 560	25
Poltava Oblast	55 804	13 099	23
Zhytomyr Oblast	52 524	13 025	25
Khmelnytskyi Oblast	56 174	12 931	23
Volyn Oblast	44 900	12 681	28
Kherson Oblast	48 765	12 261	25
Mykolaiv Oblast	54 004	10 867	20
Khmelnytskyi Oblast	49 400	10 641	22
Ternopil Oblast	39 288	10 324	26
Cherkasy Oblast	48 587	9 750	20
Ivano-Frankivsk Oblast	46 430	9 671	21
Sumy Oblast	39 498	8 942	23
Rivne Oblast	37 160	8 497	23
Kirovohrad Oblast	35 370	8 297	23
Chernihiv Oblast	36 116	7 764	21
Luhansk Oblast	68 988	5 709	8
Autonomous Republic of Crimea	121 335	612	1
Total	2004588	404346	20

Source: data from OpenDataBot.

The high mortality among small firms – self-employed entities, – is a symptom of market oscillations, rapid changes in support system, meaning infrastructure, institution changes, and as we see in our case – legislation change. Should we worry about the disappearance of business that proved to be ineffective? The answer – we should. Reduction of the diversity of firms means the reduction of the possibilities of further innovative development, testing of the successful ideas and failures, deprivation of best approaches selection. Along with economic instability, there is less probability of appearance of eco-related disruptive technologies. According to Hockerts and Wüstenhagen (2010), just the small firms are flexible enough to initiate green start-ups. There are still debates about the influence of firm size on innovations, for example, Damanpour (1992) found the positive relationship between the size and innovation; while other researchers (Acs &

Audretsch, 1998; Rogers, 2004; Baumann & Kritikos, 2016) proved the negative correlation between firm size and innovation. The recent findings on German case (Baumann & Kritikos, 2016) for micro-firms and Italian SMEs (Hall et al., 2009) testified that R&D intensity is bigger for smaller firms, while older firms have a lower R&D intensity.

Blended together these two trends – the domination of resource-based strategic thinking and unfavourable institutional dynamics – determine the development trajectory of the organizations in Ukraine. In terms of industry development, a technological paradigm change towards Sustainability may take place if there is a high degree of variation, large number of new entrants and healthy selection framework.

3. Sustainability - based Business Model: from theoretical framework to evidences

According to evolutionary theory of organizational populations, offered by Hannan and Freeman (1977), the change proceeds through a cycle of variation, selection and retention. Following interpretations of Schaltegger and his co-authors (2016), we accept that the evolutionary processes in the market towards sustainability are driven as it's presented (see Fig. 1).

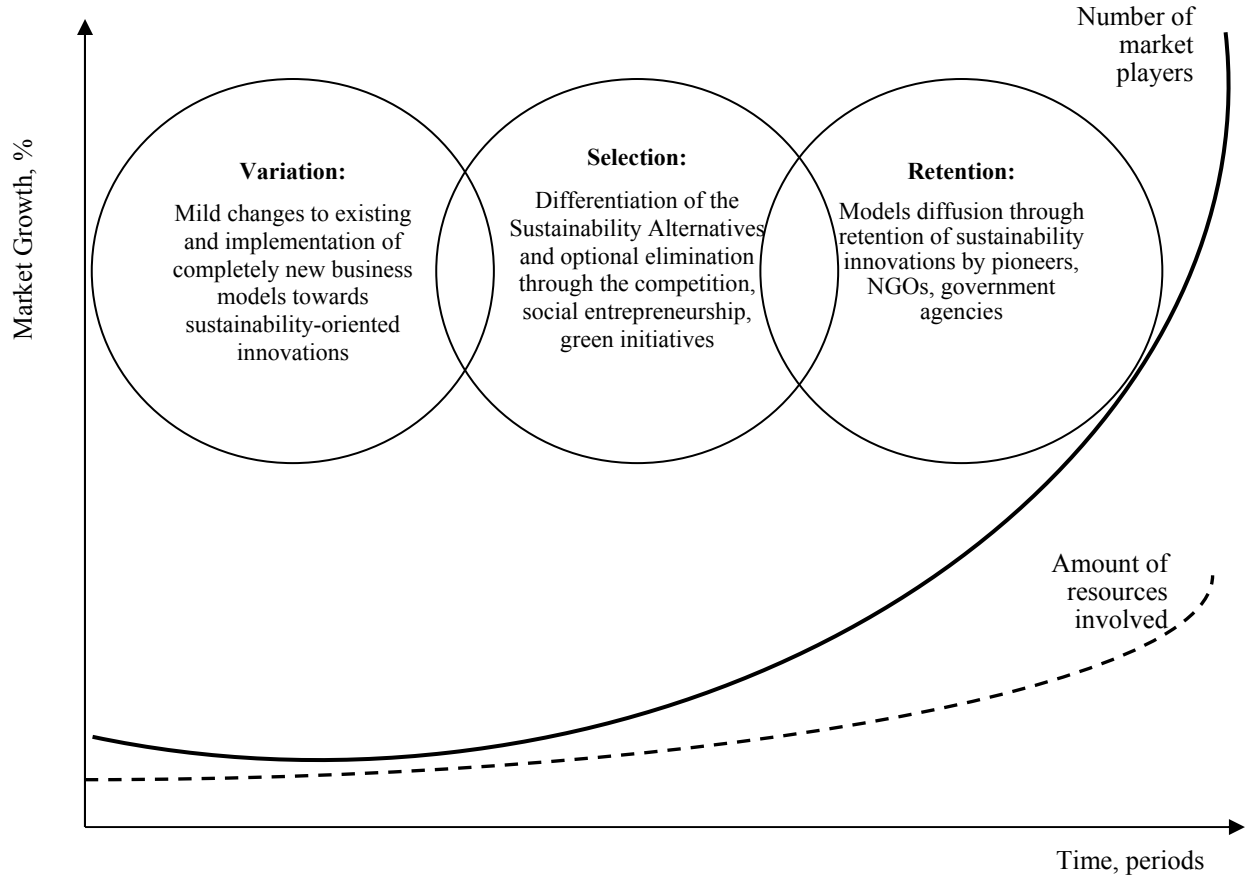

Fig. 1. The evolutionary processes in the market towards sustainability

As we assume, the market evolution starts with the discovery of sustainability-oriented innovations, then the products and services begin to vary and via fair competition the best ideas selection takes place. At the same time the substitutes appear and prove their superiority comparatively to the traditional solutions in sustainability and after that the most promising, effective, successful – in terms of sustainability – business models retain. The number of market players will rise on every next stage because of the diffusion of ideas, and retention of the best practices. We believe that the amount of resources will not rise significantly, as the sustainable solutions are energy-economizing and more cost-effective, and of course – we believe that the Sustainable Business Models should break the resource-based hypnosis of the strategists. Innovative entrepreneurs shape market, and in some cases non-profit organizations or microfirms do it more intensively and visible.

We consider "Laska" store (located in Kiev) as an example of social entrepreneurship and one of the cases where several people are united by one mindset-change idea – charity store based on second-use things. The utilization of the fabric had environmental damage for Ukraine, and the second use of it presents environmentally friendly attitude. The perception change of second-use among the customers became big challenge for "Laska" and another one was to make this business profitable.

Due to succession of the founders' actions and decisions (but rather the obsession to change the market) this social initiative succeeded. This firm is micro, and this case proves again that the size and age are related to the R&D intensity.

The assumptions about the barriers to sustainability, offered theoretical framework and cases observed in a sphere of NGOs let us to generalize the main check-points for the market player to transform the green start-ups into sustainable spin-offs:

- Deliver the vision from Resource-Based hypnosis – not the amount of resources, but the core competences, knowledge about customer needs and cost-effective strategy bring the firm to desired state. In this connection, offered value should be based on sustainability, not the 'green labels' – mimicry on sustainability works but not for long.
- Disregard the institutional conditions insofar it helps to foster the innovations – in hyper-dynamic environment conditions will never be favorable, and if they are, – the sector becomes too attractive to many actors at the same time and their actions bring extra uncertainty into the sector (industry, market). The innovations should isolate the firm from the destructive force of institutions.
- Be flexible – be intensive, be smart and be small to bring flexibility into the business-processes.
- Use the organizational evolution laws to win the battle – create competitive advantage and re-design it to get the superiority. Create own variation – selection – retention processes at the firm to elaborate the best practices.

These recommendations are general, but based on combination of previous findings in academic literature, observations of the trends in Ukrainian economy and data about organizational mortality.

Conclusion and discussion

The proposed framework is an attempt of applying evolutionary organizational theories, strategic management and innovations literature to the problem of sustainable entrepreneurship creation. Further extension of the framework should add more details to the crucial issues of organizational design, process of effective management towards Sustainability, and the selection of the business models in markets. The matter of the relations between market dynamics and sustainability-oriented innovations should be further investigated. A more comprehensive understanding of the links between sustainability and technological disruptive strategies needs to be taken into account in a process of strategic decision-making. A clear vision of the unavoidable changes for business in current Sustainability age will modify decision-making and bring new ideas for market transformations towards greening.

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