

Article

Scalability of Sustainable Business Models in Hybrid Organizations

Adam Jabłoński

The Department of Management, the University of Dąbrowa Górnicza (Wyższa Szkoła Biznesu w Dąbrowie Górniczej), Zygmunt Ciepłaka Str. 1c, Dąbrowa Górnicza 41-300, Poland; adam.jablonski@ottima-plus.com.pl; Tel.: +48-32-262-2805

Academic Editor: Giuseppe Ioppolo

Received: 21 October 2015; Accepted: 17 February 2016; Published: 23 February 2016

Abstract: The dynamics of change in modern business create new mechanisms for company management to determine their pursuit and the achievement of their high performance. This performance maintained over a long period of time becomes a source of ensuring business continuity by companies. An ontological being enabling the adoption of such assumptions is such a business model that has the ability to generate results in every possible market situation and, moreover, it has the features of permanent adaptability. A feature that describes the adaptability of the business model is its scalability. Being a factor ensuring more work and more efficient work with an increasing number of components, scalability can be applied to the concept of business models as the company's ability to maintain similar or higher performance through it. Ensuring the company's performance in the long term helps to build the so-called sustainable business model that often balances the objectives of stakeholders and shareholders, and that is created by the implemented principles of value-based management and corporate social responsibility. This perception of business paves the way for building hybrid organizations that integrate business activities with pro-social ones. The combination of an approach typical of hybrid organizations in designing and implementing sustainable business models pursuant to the scalability criterion seems interesting from the cognitive point of view. Today, hybrid organizations are great spaces for building effective and efficient mechanisms for dialogue between business and society. This requires the appropriate business model. The purpose of the paper is to present the conceptualization and operationalization of scalability of sustainable business models that determine the performance of a hybrid organization in the network environment. The paper presents the original concept of applying scalability in sustainable business models with detailed interpretation. The paper and its findings are based on longitudinal research with participant observation, bibliographic research and the author's own experience in the processes of building and implementing business models in the years 2005–2015. At the time, the author observed the conceptualization and operationalization of several business models of companies operating in the Polish market.

Keywords: scalability; sustainability; business models; hybrid organisations; network environment

1. Introduction

The dynamics of change in modern business create new mechanisms for company management to determine their pursuit and achievement of their high performance. This performance maintained over a long period of time becomes a source of ensuring business continuity by companies. An ontological being enabling the adoption of such assumptions is such a business model that has the ability to generate results in every possible market situation and, moreover, it has the features of permanent adaptability. A feature that describes the adaptability of the business model is its scalability. Being

a factor ensuring more work and more efficient work with an increasing number of components, scalability can be applied to the concept of business models as the company's ability to maintain similar or higher efficiency through it. Ensuring the company's performance in the long term helps to build the so-called sustainable business model that often balances the objectives of stakeholders and shareholders, and that is created by the implemented principles of value-based management and corporate social responsibility. This perception of business paves the way for building hybrid organizations that integrate business activities with pro-social ones. The combination of an approach typical of hybrid organizations in designing and implementing sustainable business models pursuant to the scalability criterion seems interesting from the cognitive point of view. Today, hybrid organizations are great spaces for building effective and efficient mechanisms for dialogue between business and society. This requires the appropriate business model. The purpose of the paper is to present the conceptualization and operationalization of scalability of sustainable business models that determine the performance of a hybrid organization in the network environment. The paper presents the original concept of applying scalability in sustainable business models with detailed interpretation.

2. The Methodology of Research

The research phases focus on the following issues:

- (a) the review of the relevant literature and its analysis covering domestic and foreign references as well as Internet sources,
- (b) the practical analysis of research and its multidimensional synthesis aimed at scientific inference, including preliminary research and the main research,
- (c) the development of a six-phase research model,
- (d) the implementation of the analysis and inference process, completed with the development of a holistic sustainable business model in building the long-term value of a socially responsible company with a reduced character, possible for use in the further development of the theory of management science and applicable in the practice of modern business by company managers.

They are used to answer the following questions: Which strategic factors and their relationships in the adopted business models have the greatest impact on building the long-term value of a socially responsible company? What should the structure of such a business model be?

Research is expected to result in a sustainable business model becoming a source of building the long-term value of a socially responsible company.

In order to achieve the objective of the book and the defined objectives of the research, different research methods have been used after in-depth analysis, including both analysis and synthesis of primary and secondary data, including:

- (1) Longitudinal research with participant observation conducted in the period of 2005 to 2015, when the author observed, in a continuous system, several business models of companies operating in the Polish market. These companies represented various sectors of the economy. However, it was important that these companies had a formal or semi-formal business model that could be assessed and verified.
- (2) Bibliographic research—the literature studies on the evaluation of management in theory and practice: the concept of Network Environment, the concept of CSR (Corporate Social Responsibility), the concept of Value-Based Management, the concept of Shareholders and the concept of Stakeholders, the concept of Business Models, and the concept of Business Sustainability and Business Scalability.
- (3) The experience of the author resulting from his long managerial, research and teaching work in the area of management theory and practice.
- (4) Extended interviews revealing the specific character of the functioning of companies in today's market economy.

According to J.R. Kimberly [1] (p. 329), longitudinal organizational research consists of those techniques, methodologies, and activities which permit the observation, description, and/or classification of organizational phenomena in such a way that processes can be identified and empirically documented. Longitudinal research essentially investigates processes across multiple time periods. Since the time duration between data collection efforts is defined by the researcher and by the unit under investigation, the length of a longitudinal study and number of data collection periods vary across designs. Longitudinal designs vary along six parameters: length of study; duration between data collection efforts; number of data collection periods; method of data collection; research objectives; and unit of analysis [2]. Janson (1981) suggests two broad classes of longitudinal research, (1) correlative longitudinal research (including studies of both normal representative populations and non-representative populations); and (2) experimental manipulative research [3]. Longitudinal research is associated with the implementation of repeatable measurements of the same individuals or population over a long time, meaning a period of time that enables the detection of changes. Longitudinal research is often called prospective research. In longitudinal research, the author studied the cause and effect relationships occurring in the conceptualization and operationalization of the observed business models. The cause and effect relationships were mainly related to the attributes (components) of business models of the surveyed companies. The author studied and identified events important to the development of the processes of change and the development of company business models and their attributes to understand and explain the processes of business model configuration changes. The reflections contained in the paper are based, among others, on the author's own observations of the actual business models in business practice. They can therefore be used as a benchmark for the management mechanisms used by managers in the design and operationalization of sustainable business models of companies.

Bibliographic research involved a multidimensional review of the literature. Conducting bibliographic research, the author followed the assumptions defined by Z. Jourdan, R. Kelly Rainer, and T.E. Marshall [4].

The structure of bibliographic review and the framework of theoretical development followed the assumptions of M. Massaro, J. Dumay, J. Guthrie and included the following steps:

- (1) Writing a literature review protocol.
- (2) Defining the questions that the literature review is setting out to answer.
- (3) Determining the type of studies and carrying out a comprehensive literature search.
- (4) Measuring article impact.
- (5) Defining an analytical framework.
- (6) Establishing literature review reliability.
- (7) Testing literature review validity.
- (8) Coding data using the developed framework.
- (9) Developing insights and critique through analyzing the dataset.
- (10) Developing future research paths and questions [5].

The above methodological assumptions were necessary to effectively present the scientific argument of the author.

The assumptions of the literature review included, *inter alia*, defining actual economic mechanisms occurring in the macroeconomic, sectoral and microeconomic dimensions.

Due to this fact, this issue addressed according to the adopted methodology is particularly important in terms of the following assumptions describing actual economic mechanisms occurring in the macroeconomic, sectoral and microeconomic dimensions. Furthermore, an important factor in the development of this issue is the fact that two parallel streams of building sustainable business models develop. One concerns the creation of entities developing according to the sustainability business trend and the other one concerns the trend of building social organizations including non-profit entities.

In this context, economic entities aiming to make a profit try to balance their goals, processes and actions to maintain dynamic, strategic balance with reasonable profit and the other entities are determined to offer social services that follow the sustainability business principles. From this perspective, the following macroeconomic, sector and microeconomic assumptions determine the current dimension of the business.

Macroeconomic assumptions [6]:

In the situation of the global economic crisis and increased public awareness of the quality of life, professed values have changed significantly

Social inequality in the world results in waves of discontent and conflict.

- (1) Access to knowledge, information and goods is very easy. The only limitation is money.
- (2) Free movement of goods and services enables the migration of people in search of a better quality of life. This results in the intercultural and ideological exchange of the population.
- (3) The aging of European society and the stronger role of Asian countries are changing views on the functions of companies in the economy.
- (4) The global ecosystem of the world has a significant impact on the economic sub-systems of individual continents, regions and countries.
- (5) The current world is the world of communication via the Internet and a network society.
- (6) Civilization changes are creating new needs and conditions of business
- (7) The network environment is a key business environment.
- (8) Virtualization determines the development of contemporary business.
- (9) Market mechanisms are global and unpredictable.
- (10) Access to information, knowledge and many resources is simple and universal.

Sector assumptions [7–10]:

- (1) The place and role of sectors and sectoral conditions in the economy are dramatically changing.
- (2) In many cases, sectors are blurred and fragmented; they overlap, merge or are eliminated.
- (3) Socially unacceptable economic sectors are supplanted by high technology sectors, and industrial sectors are turned into service sectors.
- (4) Regions compete with each other and their value is built for society. As a consequence, local decision-making systems create a need for the emergence of new economy sectors.
- (5) Classic sector analyses do not fulfill their role, because the life cycles of sectors become shorter and also because of the dynamics and unpredictability of the expectations that society has.

Microeconomic assumptions [11–19]:

- (1) Currently, a company is not perceived only as a financial instrument, but as a source of social capital as well.
- (2) A company becomes a tool for redistribution of value for its stakeholders.
- (3) Autocratic management methods based on bloodthirsty maximization of value for shareholders are not accepted in many cases, both in companies and in society.
- (4) A company plays an educational, cultural and economic role for the whole society.
- (5) A company becomes a factor in population migration towards prosperity and better quality of life.
- (6) A company becomes a source of permanent innovation. Without innovative products, processes and management methods, companies are not able to survive in the market.
- (7) Mechanisms based on the symbiosis of many conflicting interest groups and their synergies towards ensuring business continuity determine the new areas of decision-making systems.
- (8) Due to the uncertainty of the company towards individuals, mechanisms based on a system approach to management are playing a stronger role. Only tight management systems can

protect companies against risks caused by the company stakeholders (including hostile ones), as well as those caused by the unpredictability, asymmetry and arrhythmia of the external market.

- (9) A company is now seen as the sum of its contracts over time [20–23]
- (10) A company is a tool for value migration through network structures.
- (11) A company is a place of intellectual and social capital development.
- (12) A company is increasingly perceived and built by virtual dimensions.
- (13) A company is a platform for developing many dimensions of ideas and innovation.
- (14) The company's business model is determined by the network.

These assumptions can provide a platform for multidimensional scientific discussion about the search for the best possible solution for building effective business models. In the author's opinion, this solution may include seeking the scalability of sustainable business models in hybrid organizations.

Based on the above reflections, a research gap related to the lack of the sufficient amount of research on the scalability of sustainable business models of hybrid organizations in a network environment is noted.

A scientific problem has been presented, which says: Business model scalability affects the sustainability of the business model of hybrid organizations. The research problem is significant as there is currently very little research on business model scalability, particularly in a network environment. Simultaneously, the dynamically developing concept of sustainable business models is used for hybrid organizations. The interconnection of these two important subjects seems to be scientifically important and cognitively interesting.

In order to solve the scientific problem, the following hypotheses have been formulated:

- Hypothesis 1. Scalability and sustainability are key determinants of building a business model of hybrid organizations embedded in a network environment.
- Hypothesis 2. The network environment is favorable to building sustainable business models that are highly scalable.
- Hypothesis 3. In order for a business model of the hybrid organizations to be sustainable, first of all it must be scalable.

The author proves the hypotheses based on the described research.

3. Network Environment

Changes in the world economy lead to new paradigms of management that create a new dimension of competing, creating value and achieving results. Currently, one of the key management paradigms changing the image of management science is the network paradigm, within which the network is the key element around which management takes place. The network may have many interpretations, which make the effective application of this paradigm in business practice complicated. Therefore, it is important to thoroughly understand the mechanisms applicable to a network approach.

According to M. Gorynia, the sources and origin of a network approach are related to the following research prospects:

- marketing, and in particular the relationship between the participants in the distribution channels (Hakanson, 1982) [24].
- a resource dependence model in analyzing the relationships between organizations (Pfeffer, Salancik, 1978) [25].
- the social exchange theory (Cook, Emerson, 1984) [26].
- the theory of industrial organization (Porter, 1980) [27].
- the new trend in institutional economics with the transaction costs theory (Williamson, 1975) [28].

It is worth highlighting the evolution of interest in the network approach in management science. In recent years, in management, as in many other disciplines, the amount of research on social networks

has dramatically increased. The amount of literature about networks has risen exponentially, as shown in Figure 1.

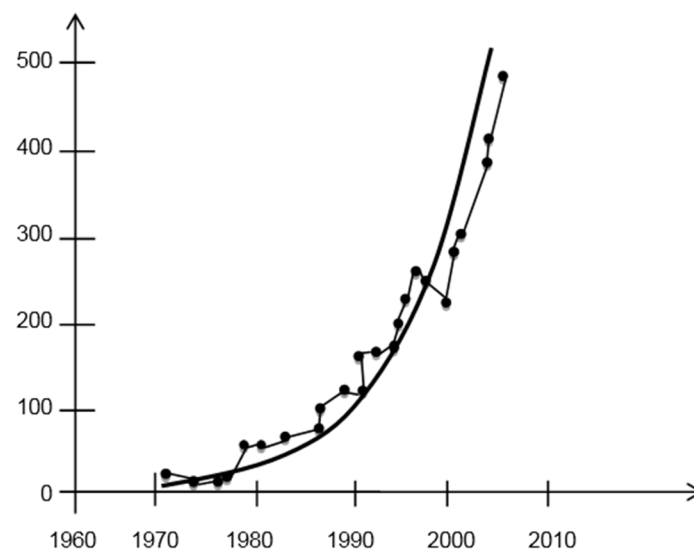


Figure 1. Exponential development of publications indexed by sociological abstracts containing the phrase “social network” in the abstract or title [29].

The rapid growth in research on networks in management results in a need for analysis and classification of what has been done in this area. It should be noted that since the 1990s, the network theory has been referred to in the literature in virtually all traditional areas of management such as: leadership, sales, satisfaction, work performance, entrepreneurship, relationships, knowledge, innovation, profit maximization, horizontal integration and many others [29]. H. Hakanson and I. Snehota define a network as three interrelated categories: participants in the network, the resources that they have at their disposal and the actions taken [30]. C. Martin Rios defines inter-firm networks as voluntary agreements of independent companies that involve knowledge exchange and sharing [31]. J.C. Jarillo understands that a network is a grouping of organizations in which at least one controls the flow of tangible and intangible assets (including knowledge) between other organizations [32]. The principal value of the network is its ability to create tacit knowledge, a company-integrator and diffusion to cooperants at the first, second and nth level [33]. Network categorization by G.J. Hooley, J.A. Saunders, N. F. Piercy distinguishes the following network types: hollow networks, flexible networks, virtual networks and value-added networks [34].

R. Achrol divides networks into the internal networks markets, opportunity networks, marketing channel networks and intermarket networks [35].

On the basis of broad, multidimensional bibliographic research on networks and the network environment, the author has defined network attributes found in the relevant literature that can be used for the conceptualization and operationalization of a scalable business model operating in a networked environment (Table 1).

Table 1. Network attributes defined in the literature used for the conceptualization and operationalization of a scalable business model developed based on [7,26–32,36–60].

No.	Network Attributes	Definition
1.	Network size	The number of network members.
2.	Network diameter	The length of the longest of all the shortest paths connecting pairs of network elements.
3.	Network density	The ratio of links between network nodes to the maximum number of links between those nodes [36].
4.	Network concentration	The ratio of network nodes in the center of the network to those that are on the periphery.
5.	Number of networks	The number of network nodes.
6.	Heterogeneity	The extent of nodes heterogeneity.
7.	Network diversity	The number of various categories of entities participating in the network.
8.	Dynamics of network interaction	The number of initiatives in a year implemented by network members to the benefit of the network.
9.	Network members turnover	The number of transactions of network entries and exits.
10.	Network coordination costs	Total costs incurred by the network coordinator in a year to support the network.
11.	Potential for conflict in the network	The number of conflicts between network members related to activity in the network.
12.	Competition in the network	The number of network participants who are competitors.
13.	The average length of paths	The average number of connections of any two entities in the network.
14.	Connection measure	The proportion of the pairs of nodes interconnected by relationships with those that have no connections in the network.
15.	The proximity of centrality	Centrality can be regarded as generating expected values for certain kinds of node outcomes (such as speed and frequency of reception) of given implicit models of how traffic flows in the network, which provides a new and useful way of thinking about centrality Centrality as defined by the measure of proximity (the average distance of a unit from other nodes) or transitivity (the frequency of the occurrence on the shortest path of relationships between any two nodes in the network, assuming that information/phenomenon is transmitted on the shortest path).
16.	The proximity of centrality	The distance of a network member (a node) from the headquarters of the cluster coordinator (the main node).
17.	Coherence	Percentage share of units included in the so-called great component (interconnected with a direct or indirect relationship) in relation to all network nodes.
18.	Network complexity	The number of different entities that have to establish inter-organizational relationships so that a network organization could develop.
19.	Network potential	The number and type of entities that may be involved or participate in the network activities including resources (also competencies) that are at the disposal of these entities that may potentially be useful in performing network tasks and achieving the set objective.
20.	The formal structure of the network (the formalization of relationships)	The area of formalizing the relationship between the entities forming the network, network complexity and degree of its centralization.

Table 1. Cont.

No.	Network Attributes	Definition
21.	The intensity of the relationship	The number of interactions between network members at a given time.
22.	Trust in the network	The mechanism based on the assumption that the other community members are characterized by honest and cooperative behavior on the basis of shared standards, which is significant and measurable economic value.
23.	The micro-position of a network node	The micro-position reflects the potential of the node related to forming the relationships with other network nodes, compared to the nodes that cannot form such relationships or do it inefficiently [61].
24.	The macro-position of a network node	The macro-position reflects the role of a node across the network, dependent on its ability to shape the relationship between resources and activities of nodes within the network. This results partly from the activities taking place inside the node, and partly from what the node achieves from the activities of other network nodes [61].
25.	Bargaining power of a network node	The ability of a node to use and convert rare and valuable environmental resources [62].
26.	Network capability	Network capability is a set of processes and routine organizational behavior aimed at taking advantage of opportunities related to embedding the company in the inter-organizational network [63].

4. Business Models

The concept of business models is now one of the most explored subjects in the theory and practice of management. This is evidenced, for example, by the number of publications with the term “business model” in the EBSCO (Elton B. Stephens Company) database between 1975 and 2009, as shown in Figure 2.

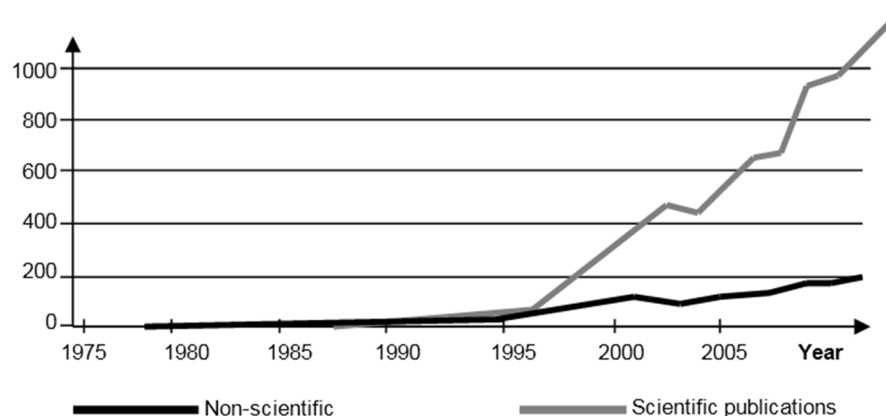


Figure 2. Number of publications with the term “business model” in the EBSCO database between 1975 and 2009 [64].

This also leads to a multitude of definitions of business models and various multidimensional approaches.

B.W. Wirtz presents the stages of the development of approaches to business models over the years 1950–2010+ (Figure 3).

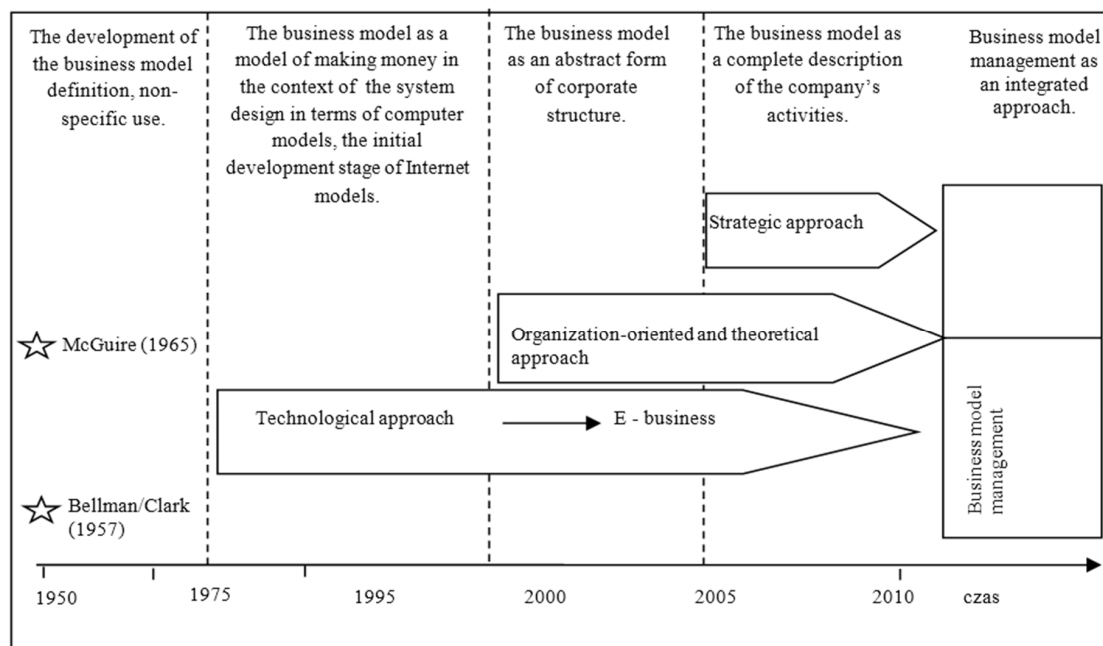


Figure 3. Stages of the development of approaches to business models [65].

The above figure shows that, currently, an integrated approach to business model management prevails. This gives rise to the need to review the business model from multiple perspectives.

In order to effectively express the concept of the business model, the author quotes the definition by D. Teece, who says that “a business model determines the way in which a company creates and delivers value to customers, and then converts the payments received into profits” [66]. In addition, based on extensive bibliographic research, a synthetic review of the literature on the concept of business models from different perspectives has been presented below.

The business model approach understood as a type of a market player in the value chain is highlighted, for example, by K. Obłój [67] (operator, integrator, conductor), T. Gołębiowski, T. M. Dudzik, M. Lewandowska and M. Witek-Hajduk [68] (traditionalist, market player, contractor-specialist, distributor, integrator). The approach to the e-business model from the perspective of the player market is presented, for example, by P. Timmers (e-shop, e-procurement, e-mail, e-auction, value chain service providers, virtual business community, cooperation platform) [69], Rappa [70] (advertising, brokerage, community, infomediary, manufacturer, merchant, subscription, utility) and Applegate [71] (focused distributor models-retailer, marketplace, aggregator, infomediary, exchange, portal models-horizontal portals, vertical portals, affinity portals, producer models-manufacturer, service provider, educator, advisor, information and news services, custom supplier and infrastructure provider models with a number of sub-models, e.g., infrastructure portals).

A business model understood through the prism of the company's profitability has been presented by, among others, by A. Slywotzky. Together with his team he described 22 profitable business models based on the experiences of American companies [72].

The link between the business model and strategy and business processes is highlighted by A. Osterwalder, Y. Pigneur [73] and L. Bossidy, R. Charan [74] and J. Niemczyk [75]. In terms of value creation, the definition of the business model is presented by, among others, P.B. Seddon, G.P. Lewis, P. Freeman, G. Shanks [76], B. de Witt, R. Meyer [77]. The following authors focus on studying the business model from the perspective of stakeholders: F. Hoque [78] and S. Voelpel, M. Leibold, E. Tekie, G. von Krogh (2005) [22] and A. Jabłoński [79]. The definitions of networked business models are presented, *inter alia*, by K. Perechuda [33] A. Jabłoński, M. Jabłoński [80]. The link between the business model and resource-based view is highlighted by K. Krzakiewicz and S. Cyfert [81]. The business model ensuring the stability and continuity of the company is presented, among others, by B. Demil, X.

Lecocq [82], K.D. Sandberg [83], A. Afuah, C. Tucci [84]. B. Nogalski [85] defines a business model from the development perspective. A hybrid business model is presented by S.J. Deodhar, K. Saxena, R.K. Gupta, M. Ruohonen [86], and A. Jabłoński [87]. The definition of a sustainable business model is presented, among others, by W. Stubbs and C. Cocklin [88] and F. Boons, F. Lüdeke-Freund [89] and A. Jabłoński [90], while A. Neely, R. Delbridge [91] focus on a geometric business model.

The above approaches describe the particular complexity of the concept of business models in management science. The bibliographic research indicates a multidimensional look at the business model and creates further implications for research.

5. Sustainable Business Models

If we assume that the company's business model is based on the principles of balancing the business from a number of perspectives, it will become a sustainable business model. This definition is also consistent with the assumptions relevant to a sustainable company. The sustainable business model can be better understood by understanding:

- the role of different sustainability drivers,
- causal relationships in relation to the various actions to be taken,
- the impact of these actions on sustainable results,
- the potential and actual impact on the financial results [92].

T. Dyllick and K. Hockerts present a model based on the concept of corporate sustainability (balancing and integrating the activities of the company) mapped in the form of a triangle. In three corners of the triangle there are: focus on business case, natural case and societal case [93]. W. McDonough and M. Braungart present the model of corporate sustainability in the form of a fractal triangle, whose corners include: ecology–ecology, equity–equity and economy–economy [94].

An interesting sustainable business model based on the original concept of SMART (sustainability modeling and reporting system) has been developed by M. Daud Ahmed and D. Sundaram [95]. In this model they define the sustainable business transformation roadmap, where its key elements include:

- design,
- transformation,
- monitoring and control,
- discovery and learning,
- strategy.

M. Yunus, B. Moingeon, L. Lehmann-Ortega [96] define the concept of a social business model, which can be a sustainable business model. They have developed five principles of building a social business model consisting of two areas:

- (1) Framework common also for innovative models.
- (2) Areas specific to social models.

The similarities with conventional and innovative business models include:

- (1) The challenges of conventional wisdom and fundamental assumptions.
- (2) The discovery of complementary business partners.
- (3) Undertakings in improving process experiments.

Specific objectives for social business models include:

- (1) Creating favorable conditions for social orientation in terms of profit by the shareholders.
- (2) Clear, specific objectives for profit for society.

The social business model is adopted by the social company. P. Kotler, H. Kartajaya and I. Setiawan define three measures of the success of a social company that will indicate whether the company will be able to strengthen the economic foundations of society. Using these measures, it is easy to say which company is a social company and which is not. First of all, such a company attains disposable income. Secondly, it extends this income. Thirdly, it increases it [97] (p. 136). B. Nogalski notes that in order to implement a new model (and, therefore, change), harmony between organizational structures, support systems, processes, workforce skills, resources and the incentive system, and the time horizon is necessary. All these elements and supporting processes (including corporate culture that should also be adapted to the business model) should support the implementation of changes in the model and the strategy in a consistent manner [98] (p. 123). Harmony and match are the factors conducive to the application of the principles of sustainability.

An interesting approach to the business model based on sustainability has been introduced by A. Osterwalder and Y. Pigneur [99] (p. 62), who have presented the concept of innovative business models of responsible companies in the form of a coordinate system. They determine the relationship between corporations and non-profit organizations, believing that corporations in their business models should move towards the development of social potential and its impact on business (currently the undervalued area in corporation management). In contrast, non-profit organizations should develop their business models towards seeking greater profit potential (currently the undervalued area in non-profit organizations management).

F. Boons and F. Lüdeke-Freund present sustainable business models that enable social entrepreneurs to create social value and maximize social profit; of significance is the business models' ability to act as market device that helps in creating and further developing markets for innovations with a social purpose [89] (p. 20). S. Schaltegger, F. Lüdeke-Freund, and E. Hansen present that based on the understanding of a business case for sustainability, a business model for sustainability can be defined as supporting voluntary or mainly voluntary activities which solve or moderate social and/or environmental problems. By doing so, it creates positive business effects which can be measured or at least argued for. A business model for sustainability is actively managed in order to create customer and social value by integrating social, environmental, and business activities [100].

Looking at the business model from the point of view of fulfilling the needs and requirements of stakeholders as a source of competitive advantage in the market, a key factor in building an effective strategy might be:

- (1) Treating the organization as a system which determines the adoption of an appropriate management philosophy, an optimal organizational structure, and an appropriate shape of intra-process relationships.
- (2) Building the appropriate structure of dynamic marketing focused on the business partnership with stakeholder groups in a balance of forces between stakeholders' impact on the company and *vice versa*.
- (3) Focus on internal and external communication for the collectivization of joint activities in an in-out-in system, inside the organization–outside the organization–inside the organization.
- (4) The resource-based approach, taking into account all members of the organization to achieve key objectives of the company.

The adoption of such a shape of the model of the defined strategy line can make it possible to answer the following questions strategically for the company:

- (1) Who is responsible for the interpretation and the formation of objectives?
- (2) Which stakeholders do we have a relationship with?
- (3) How do services and innovative processes proceed?
- (4) What are the incentives and the structure of the incentive system to stakeholders?
- (5) What rights and responsibilities do we have towards the company?

- (6) What are the decision-making processes between the company and supervisory authorities?
- (7) How recognizable is the company brand?
- (8) How have company resources been defined qualitatively and quantitatively in the processes [101] (pp. 35–36)?

These questions also shift the focus of the business model on both internal and external factors, where trust is an important factor.

In this case, trust can be based on values, motivation and structures, which indicates how highly the values, motivation and structures that help to achieve the strategic objectives of the organization are valued. Furthermore, in this context, the following are important: clarity, fairness and stability of the procedures used [102] (p. 109). Building the model using the concept of Sustainable Enterprises requires the company to integrate the key strategic factors constituting the business model towards sustainability in the economic, environmental and social area:

- economic sustainability—it requires an increase in the profitability of the company through the efficient use of resources (human, raw materials, finance), effective projects and undertakings, good management, planning and control,
- ecological sustainability—it is essential that harmful and irreversible consequences for the environment are prevented through the efficient use of natural resources, promoting renewable resources, soil and water protection, and skillful waste management,
- social sustainability—requires the response to the needs of society including all other stakeholders [103] (p. 277).

In summary, the sustainable business model building the long-term value of a socially responsible company is a model built by the combined use of the corporate social responsibility and value-based management concepts which guarantees that the needs of shareholders and other stakeholder groups are fulfilled, by balancing the company potential skillfully to generate value allocated in a sustainable way, allowing the continuity of company management. The sustainable business model is a hybrid model, *i.e.*, a model built in a subject- object system. Components of this model are entities gathered around business-forming relationships, influencing the company value drivers and strategic factors related to the theory of corporate social responsibility, company value-based management, the stakeholder theory, and the shareholder theory, which are in a mutual relationship based on the principles of sustainability. This model is a holistic model of reduced nature, which could be applied in various sectors of the economy that are treated as a subsystem of the whole ecosystem. This means that the model and its construction are included in mid-range theory [90] (pp. 400–403).

6. Hybrid Organizations

The functioning of contemporary companies often requires them to use a dual perspective in defining their strategic goals. They should be cost-effective and, at the same time, open to social purposes. Then they can take advantage of the potential inherent in the network of company stakeholders.

A company where the ability to generate value for shareholders and the widely understood business community is ensured is called a hybrid company.

This approach determines the rules for providing the context for scientific discussion. This context providing a framework for discussion relates to presenting the picture of reality determining the conduct of business today. A company which currently performs many economic and social functions is searching for a new strategic reference.

This strategic reference becomes more complex and complicated. The market of customers that are often prosumers co-developing an offer with the company creates changes in cooperation and co-development. It all has a hybrid dimension. The hybrid dimension refers to the place and role of the company and its functions and combining objectives and activities as well as the cooperation between the ontological beings of the company such as strategy, a business model and business processes.

In general terms, a hybrid is a combination of different elements in a coherent whole. Creating hybrids involves combining two or more different approaches (methodologies) to form a new single approach (methodology).

A heterosis effect (called hybridization in the case of deliberate procedures) is a hybrid showing longer life and increased fertility. The individual elements in a hybrid can work together, and they can also compete with each other. The motivation for creating hybrid systems can be a conviction that there is a positive synergistic effect of their use. Hybridity may consist of the pragmatic and coordinated (parallel, serial, hierarchical and virtual) cooperation of many factors with each other, consequently, however, forming a coherent whole which is the combination of elements derived from other systems. As regards inorganic systems, in a hybrid-artifact (a computer program, method) showing increased usability, the quality of solutions, *etc.*, will be evaluated positively. A. Ultsch uses the term “hybrid” in the context of hermaphrodite forms created through a merger or crossing [104]. The hybrid model in physics is the model that couples two or more devices that are used for shaping physical processes in various ways, for example analog-digital devices are used here. The hybrid system is a drive system where two different energy sources or generally different power sources co-work. A hybrid scheme in electronics is used to describe the parameters of electronic circuits. A hybrid drive is a combination of two types of drives to move a single device. A hybrid vehicle is a vehicle that has at least (usually) an engine with two drives. Three basic types of hybrid can be distinguished in terms of action: parallel, serial and mixed action.

A hybrid approach in business can combine numerous divisions according to selected criteria for classification, in particular the following [105] (p. 4):

- (1) By the extremes: for profit–non-profit [106,107].
- (2) By the social sector of: the market–civil society–state [108–110].
- (3) By the type of integration: external–integrated–built-in [111,112].
- (4) By the goods produced: private–public [113–115].
- (5) By the product status: goods–services [116].
- (6) By the agents of value creation: manufacturers–consumers [117–119].
- (7) By ownership (corporate governance): private–cooperative–public [105,107,110].

Hybrids offer alternative solutions, probably the optimal ones, when significant limitations in obtaining contractors occur [120] (p. 19).

Hybrid organizations can exist on either side of the for profit/non-profit divide, blurring this boundary by adopting social and environmental missions like nonprofits, but generating income to accomplish their mission like for-profits. Hybrids are built on the assertion that neither traditional for-profit or non-profit models adequately address the social and environmental problems we currently face. Entrepreneurs of hybrids seek to build viable organizations and markets to address specific social and environmental issues.(. . .) Hybrid organizations are underpinned by a new and growing demographic of individuals who place a higher value on healthy living, environmental and social justice, and ecological sustainability in the products and services they purchase, the companies in which they invest, the politicians and policies they support, the companies for which they work and, ultimately, the lifestyles they lead. This demographic is recognized with labels such as Cultural Creatives and Lifestyles of Health and Sustainability (LOHAS) [121] (p. 126).

One of the key approaches to hybrids in terms of the common implementation of social and economic goals has been proposed by F.M. Santos. He defines four important proposals related to social entrepreneurship:

- Proposition 1. The distinctive domain of action of social entrepreneurship is addressing neglected problems in society involving positive externalities.
- Proposition 2. Social entrepreneurs are more likely to operate in areas with localized positive externalities that benefit a powerless segment of the population.

- Proposition 3. Social entrepreneurs are more likely to seek sustainable solutions than to seek sustainable advantages.
- Proposition 4. Social entrepreneurs are more likely to develop a solution built on the logic of empowerment than on the logic of control [122].

A strategic hybrid, according to A. Jabłoński, is understood in strategic terms as a blend of the business model, strategy and business processes used to achieve an acceptable level of company performance in the short and long term. Due to its eclectic character, the strategic hybrid may lead to achieving the set results more quickly. The relationships between the strategy, business model and business processes may also determine the simultaneous development of a company in terms of products, market and resources. Strategic hybrid consistency is the mutual and interdependent compliance of all components of the business model, strategy and business processes with the specific criteria that ensure the company's ability to achieve high performance in the long and short term. The result of hybridization is the so-called synergistic effect (a hybrid demonstrates the features that are difficult to see in the original compositions). The hybrid creates new value based on the non-standard configuration consisting of predefined components while maintaining its proper full integrity. The adoption of such a solution is a decision made by prudent managers [87] (p. 46). A.-C. Pache and F. Santos suggest, based on their own research, that hybrid organizations combine the competing logics in which they are embedded through selective coupling [123]. In contrast to decoupling, which entails the ceremonial espousal of a prescribed practice with no actual enactment, selective coupling refers to the purposeful enactment of selected practices among a pool of competing alternatives. Selective coupling allows hybrids to satisfy symbolic concerns, just as decoupling does [123]. By plotting two dimensions in a matrix, A.C. Pache, F.M. Santos and C. Birkholz derive a typology of four social business hybrid models that we call Market Hybrids, Blending Hybrids, Bridging Hybrids, and Coupling Hybrids (Table 2) [124].

Table 2. A typology of social business hybrids [124] (p. 45).

Dimensions	Clients = Beneficiaries	Clients ≠ Beneficiaries
	MARKET HYBRID Examples: BOP initiatives for access to basic services (energy, health)	BRIDGING HYBRID Examples: integrated business model with job-matching for people with disabilities
Automatic Value Spillovers	Risk of Mission Drift: Low Financial Sustainability: Easy	Risk of Mission Drift: Intermediate (lower risk for more integrated models) Financial Sustainability: Moderately Difficult
Contingent Value Spillovers	BLENDING HYBRID Examples: Microfinance, integration models that require regular support or change of behavior for value to be created Risk of Mission Drift: Intermediate Financial Sustainability: Moderately Difficult	COUPLING HYBRID Example: Work integration social enterprises that require a dual value chain that serves both clients and beneficiaries Risk of Mission Drift: High Financial Sustainability: Difficult

Vivek K. Velamuri, Anne-Katrin Neyer and Kathrin M. Möslin believe that a “Hybrid” in the creation of hybrid value is the presence of two distinct types of components in the offer: (1) the existence of the product (tangible component) and (2) the existence of the non-material service (intangible component). They define the creation of hybrid value as a process of generating additional value through the innovative integration of the product (tangible component) and service (intangible component). Similarly, each business model that satisfies the above criteria (the creation of value and hybridity) will be included in the process of hybrid value creation [125]. Such an approach to a hybrid

creates a new dimension to the implementation of key strategic objectives of the company. Being receptive to many economic and social aspects and their interconnections generates new dynamics of the company. This is the basis for building business models that are evolutionary in their nature and based on the stability generating the continuity of business.

7. Scalability

Scalability aims to provide more work and more efficient work with an increasing number of components. It is, among other things, a feature of computer networks consisting of the ability to expand continuously. Scalability is sometimes defined as “the ease with which a system or component can be modified depending on the type of problem”. A scalable system has three basic features:

- The system can adapt to its increased use.
- The system can accommodate larger amounts of data.
- The system is easy to maintain technically and works with reasonable efficiency.

Scalability is not only speed. Effectiveness and scalability of the system vary and correlate with each other. Effectiveness measures how quickly and efficiently the system can perform certain calculations, while scalability measures the trend of effectiveness with an increased load [126].

Daniel A. Menascé and Virgilio A.F. Almeida think that the system is scalable if there is a “simple” way to update the system to enable support for increased trade while maintaining proper efficiency. Simple means that no change in the system architecture or software should be required to scale the system [127]. The Universal Scalability Law (USL) in computing is a model used for forecasting the scalability of hardware and software. It uses the system performance as a function of load to forecast system scalability. The USL function is used to create a model from the formula and data frame. The USL model produces two coefficients as result: sigma models the contention and kappa the coherency delay of the system. The Universal Scalability Law was formulated by Neil J. Gunther [128,129].

Scalability is an essential element for studies in strategic management, yet is unrecognized fully and sufficiently. The concept of scalability can thus be adapted now to the important debate on the mechanisms of strategic management.

Business model scalability is the capacity of the business model to maintain similar or better effectiveness while continuously increasing or reducing the number of its components and while constantly adjusting the boundaries of its impact (e.g., in a network environment).

Scaling in the business model thus refers to, *inter alia*, adding or removing a component and/or components of the business model in order to improve its effectiveness. Scalability is a key parameter that determines the company’s ability to grow, and it is based on the contention that not every unit of revenue is generated by an equal cost unit. Assessing the capability of business models to increase the company’s value, investors first of all appreciate models that allow companies to have higher revenues and create higher and higher profitability. However, a common feature of e-business models especially is that they have high market value at low or even no profits in the long term. Market value is high because of attributes, which are characteristic of business models such as an innovative solution in the area of social networks, a unique technical solution forming interesting value added, *etc.* Therefore, their scalability is important then.

In the literature, for example, Amit and Zott [130], Rappa [131], and Bouwman and MacInnes [132] define scalability as a key factor of innovative business models contributing to the achievement of results by the company. Scalability, therefore, is an important feature of the business model as it is included in its configuration, whereas strategy sets a business model in motion and gives its resources the right direction, in line with the expectations of business model decision-makers, and scalable business processes are used to implement operational objectives and will be more effective when a business model is highly scalable as well.

According to Christian Nielsen and Morten Lund, scalable business models have the following characteristics:

- The business potential is characterized by exponentially increasing returns to scale
- They remove themselves from otherwise typical capacity constraints of that type of business
- Partners enrich the value proposition without hurting profits
- Stakeholders take multiple roles and create value for one another
- The business model becomes a platform that attracts new partners, including competitors [133] (pp. 16–17).

Based on the literature review and interviews with entrepreneurs and investors, Georg Stampfl, Reinhard Prögl and Vincent Osterloh identify the key factors in scaling the business model and some consequences of scalability. Their discussions are illustrated by examples of well-known Internet companies. Their findings show that the factors that affect the scalability of the business model include technology, cost and earnings structure, institutional capacity for adaptation (*i.e.*, the ability to adapt to different legal standards), and network effects and user orientation [134] (pp. 219–220).

According to R. Green, a scalable business model is a simple concept. The model is scalable when increased revenues cost less to deliver than current revenues. In other words, the operating margin increases with increasing revenues [135].

The following are 10 tips to build the most scalable company:

- (1) If investors are needed, start with a scalable idea.
- (2) Create a business plan and model that is attractive to investors.
- (3) Use a product with a minimum necessary functionality (MVP) to authenticate a model.
- (4) Build a strong team to get out of the critical path.
- (5) Subcontract what is not strategic to optimize financial leverage.
- (6) Focus on indirect and marketing channels to quickly convey a message.
- (7) Make the most of automation.
- (8) Attract and use investment funds.
- (9) Take into account the possibility of buying licenses and franchising.
- (10) Define a business that is flexible and constantly improving [136].

E-commerce system scalability is one of the key factors in e-business. This is so because the trade on e-commerce websites is periodic: there are high seasons, there are variations between days, and campaigns and events can attract the attention of an unexpectedly large number of customers. The most important part of scalability management is that the company is trying to avoid such technological systems that have a predetermined maximum performance (new performance requires an entirely different platform/technology/system structure). In this context, performance can be seen as:

- the number of the same users/connections that the system can handle without errors/problems;
- the number of transactions possible at the same time;
- the maximum data transfer (download, *etc.*).

Speaking of accessibility, we mean the time of the system operation from the point of view of the customer. It is a concept closely related to scalability and contracts at the service level because it is a measure of how good the access is that customers have to services in real time, *i.e.*, starting a call, receiving a response and returning to the transaction when it is possible. Technical measures to ensure availability range from session control to transaction maintenance to databases supporting the required operations [137] (p. 59).

Business model scalability can be applied to startup organizations.

According to S. Blank and B. Dorf, a startup is a temporary organization dedicated to looking for a scalable, repeatable and profitable business model [138] (p. 19). Such a definition clearly indicates startup characteristics such as:

- (1) Temporality.
- (2) Lack of durability.
- (3) Volatility.
- (4) Risk and uncertainty.

The proposed definition explicitly refers to the concept of a business model as a factor determining the success or failure of the company. In startup organizations it is not a strategy that will determine its success but a well-designed business model, based on credible premises. S. Blank highlights a new approach to the design of startup organizations, believing that the startup founders should not begin by developing a business plan, but searching for a business model [139] (p. 7).

Factors stimulating changes in the business model component arise from the implementation of open innovation, which in many cases requires business model configuration changes for their effective implementation. In this case, the level of business model scalability will also depend on the level of company innovation in the context of open innovation (arising from relationships with other entities). Business model scalability of the company embedded in the network can be conducted according to the following criteria:

- (1) In terms of size—the ability to add/remove components of the business model.
- (2) Geographical—the possibility of spreading (acquisition and transfer through a network) business model components in different locations of the network.
- (3) Administrative—the possibility of different hierarchies of business model configuration coordination from the perspective of the company (company co-ordination) and/or a network perspective (network coordination).

Business model scalability refers, *inter alia*, to:

- adjusting the size of the company to the expectations of the market,
- adjusting the volume of engaged resources to building an efficient, networked business model,
- adjusting the structure of costs and revenues,
- adjusting the selected technologies resulting from the above elements.

Oversizing or undersizing one of the above elements may have a negative influence on achieving assumed performance by the company.

Scalability may be of vertical and/or horizontal nature.

Vertical scalability is scaling in which the components of the business model within a company are added or removed.

Horizontal scalability involves scaling which is adding or removing companies embedded in the network which creates its own network business model.

By way of analogy to information systems, business model scalability can be divided into:

- Linear—with an increase in the number of business model components, the company increases its performance linearly, so the effectiveness of scaling is 100%. It also means there is infinite scalability of the business model (Figure 4).

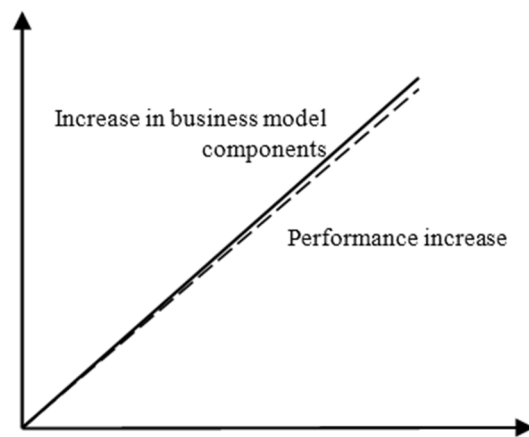


Figure 4. Linear scalability.

- Sub-linear—this means that with the expansion of the business model by other components, company performance increases more and more slowly until it reaches a certain limit. This means there is a finite business model scalability (Figure 5).

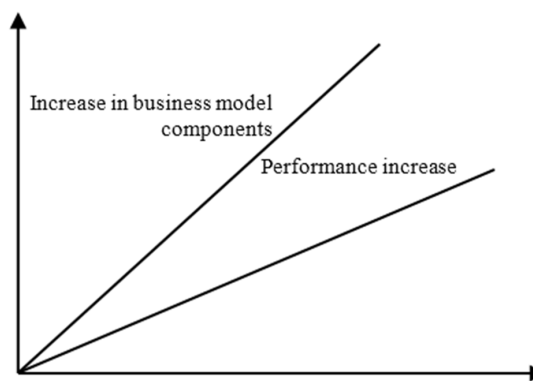


Figure 5. Sub-linear scalability.

- Negative—this means that with the expansion of the business model by other components, company performance declines. This effect can be observed for companies not adapted to scaling (Figure 6).

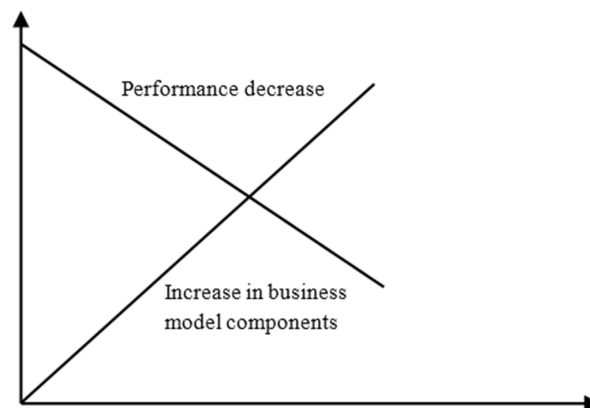


Figure 6. Negative scalability.

- Super-linear—this is a special case when company performance is growing faster than linearly with an increasing number of business model components (Figure 7).

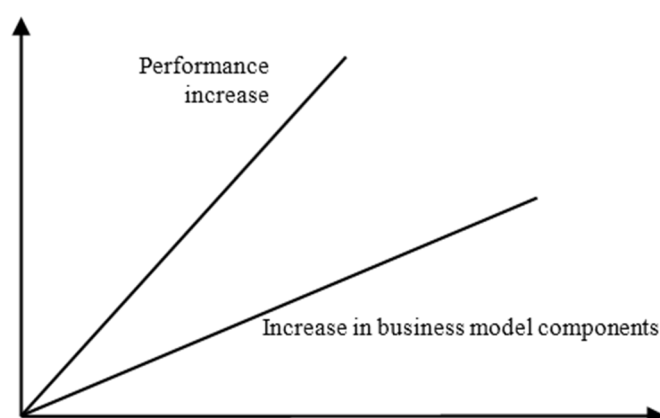


Figure 7. Super-linear scalability.

Examining the concept of business model scalability, it is essential to define the attributes that determine the design and operationalization towards its scalability.

Key features of the business model affecting its scalability, which ensure its ability to achieve high company performance and are defined based on the literature, are presented in Table 3.

Table 3. Key features of the business model affecting its scalability.

No.	Business Model Features
1.	Dynamics
2.	Adaptability
3.	Repeatability
4.	Coherence
5.	Economization
6.	Profitability
7.	Innovation and e-innovation
8.	The ability to migrate
9.	Availability
10.	The scale of impact

The measurement system used to measure business model scalability is implemented so that the business model will be vulnerable to changes with respect to the environment; thus, it constantly responds to market needs. Then measurement indicators serve to better understand the business model and market needs relationship. The network is conducive to scalability as, through the relationships in the network, it is easier to change the business and such changes may occur faster due to obtaining information faster by participating in the network. Such performance measures that will relate more to the business model rather than to the whole company should be sought within the business model, so it is necessary to answer the question of whether the rules that govern the business are correct. The appropriateness of the adopted business model should be constantly evaluated. Therefore, good measures used to describe the business model are measures used in classic “business plans” and even strategies and they are validated by clashing them with direct customers of the company. Therefore, the concept of lean startup emerged, which is the concept appropriate for companies starting their activity. It results from the assumption that it is difficult to measure a company’s achievements at the beginning of the business if they have none yet. Instead, startup development in the early stages should be measured (if possible) by means of appropriate qualitative and quantitative measures. Qualitative

measures will describe a business model in terms of its attributes (e.g., business model innovation), while quantitative measures include, in the case of e-business models using Internet communities, for example, the number of users that can increase or decrease and the measure may be, for example, the dynamics of growth or decline.

In view of the above reflections, it can be assumed that the issue of designing scalable business models is now a key challenge for both theoreticians and practitioners of management. The design process, or design in short, is a substantial and creative activity of man that is a conceptual and pragmatic preparation (related to methodology) for executive functions. This general expression contains the creative feature of the design, and therefore it gives it more or less originality. The sense of preparation is obvious, because the design is the structure to be verified, and then implemented [140] (p. 168).

The art of designing a model of the customer-oriented company activity begins with the single most important element—getting to know the customer and going on to develop the correct design. Managers actually focusing their attention on the customer always make other decisions related to the scope of activity. Their first question is not what the core competencies of the company are, but what their importance to the customer is. They will make the company offer products based on what a customer needs, wants and what he or she is willing to pay [72] (p. 50).

The process of designing the business model in a synthetic way can be divided into the following steps:

- (1) Outlining the concept of the designed business model (business idea, potential recipients of values, characteristics of produced value and method of delivering this value to customers, *etc.*).
- (2) Developing strategic objectives of the business model configuration.
- (3) Developing the necessary financial analyses to implement the business model in market conditions.
- (4) Linking the financial aspects of the business model feasibility with the aspects related to the assumptions of its design.
- (5) Identifying weaknesses of the business model when it is treated as a system and in the case of visible gaps, complementing the design of the business model.
- (6) Identifying innovative features of the business model and their critical analysis.
- (7) Assembling the business model in a system of features that allow for building capacity to compete.
- (8) Designing the assumptions of the company management system based on business model attributes [141] (pp. 29–30).

It should be remembered that in order to design a business model effectively, the trick is not only to adopt the proper way of thinking and its attributes, but also to use them skillfully.

8. The Conceptualization of Business Model Scalability

The criteria of business model scalability can include:

- The ability to customize the technology to the customer's expectations and requirements of the product,
- The flexibility of infrastructure resources, expressed by the ability to adopt to their current needs (increase or reduction of resources),
- The ability to reduce or increase costs adequately for the needs and resources used,
- The dynamics of processes are constantly adapted to respond to impulses from the environment,
- Continuous adaptability to changing legal requirements,
- The ability to use the network effect—the occurrence of the phenomenon consisting of the fact that the more nodes a network has, the more benefits membership brings to individual nodes. Each additional node in the network increases its value, encouraging more potential nodes to join in,

- The acceptable level of adjusting the number of customers served to the capacity of the company,
- Continuous ability to improve the company's business model,
- The ability to simplify the business model (if possible),
- The ability to continuously educate company customers,
- The ability to permanently deliver new value to the customer,
- The ability to transfer and internationalize the company business model,
- The ability of the business model to adjust to the differences arising from international, cross-cultural, and legal exchange,
- The ability to create innovation through the business model,
- The ability to flexibly modify the business model depending on the internal and external conditions,
- No restrictions in the location of the company,
- The ability of the company to form partnerships with the network members.

In the logical interpretation of the application of business model scalability, the mechanisms of analogy can be used, referring to Moore's law and Wright's law, which are widely used not only in computer science [142].

In this sense, key assumptions of business model scalability can be developed using the principles of Moore's law and Wright's law.

- (1) We treat the company embedded in the network as an organization capable of achieving high performance through the network.
- (2) We define core resources, processes and stakeholders of the company embedded in the network that are necessary to build a scalable business model.
- (3) We determine the technological and organizational boundaries of the business model of the company embedded in the network.
- (4) We convert the business model of the company embedded in the network into a discrete model.
- (5) Using Moore's law and Wright's law, we analyze how to expand the business model in the best possible way in terms of components and apply the principle of how much we can reduce the cost of its operation.
- (6) We conduct a simulation of business model development assuming the boundary conditions for the developed measuring system, being a tool of assessing the business model of the company embedded in the network.
- (7) Then we change the parameters of the business model and the structure of its components until we adjust the founded discrete model to the actual situation in business.
- (8) We validate the designed scalable business model by implementing it into practice.
- (9) When conducting a further analysis of the business model scalability concept, it can be assumed that the business model that is subject to scalability consists of two groups of components:
 - a. Primary components.
 - b. Secondary components.

Primary components constitute the core of the business model, being the basis for its building at the stage of its design.

Secondary components are added to the business model in order to improve company performance. They are an extension of primary components. Ensuring business model scalability is of special importance in adding and removing them. The increasing complexity of the business model in terms of a scalability criterion consists of incremental change in the business model components as a function of time. Figure 8 shows the concept of incremental changes in the business model components of the network company by the scalability criterion.

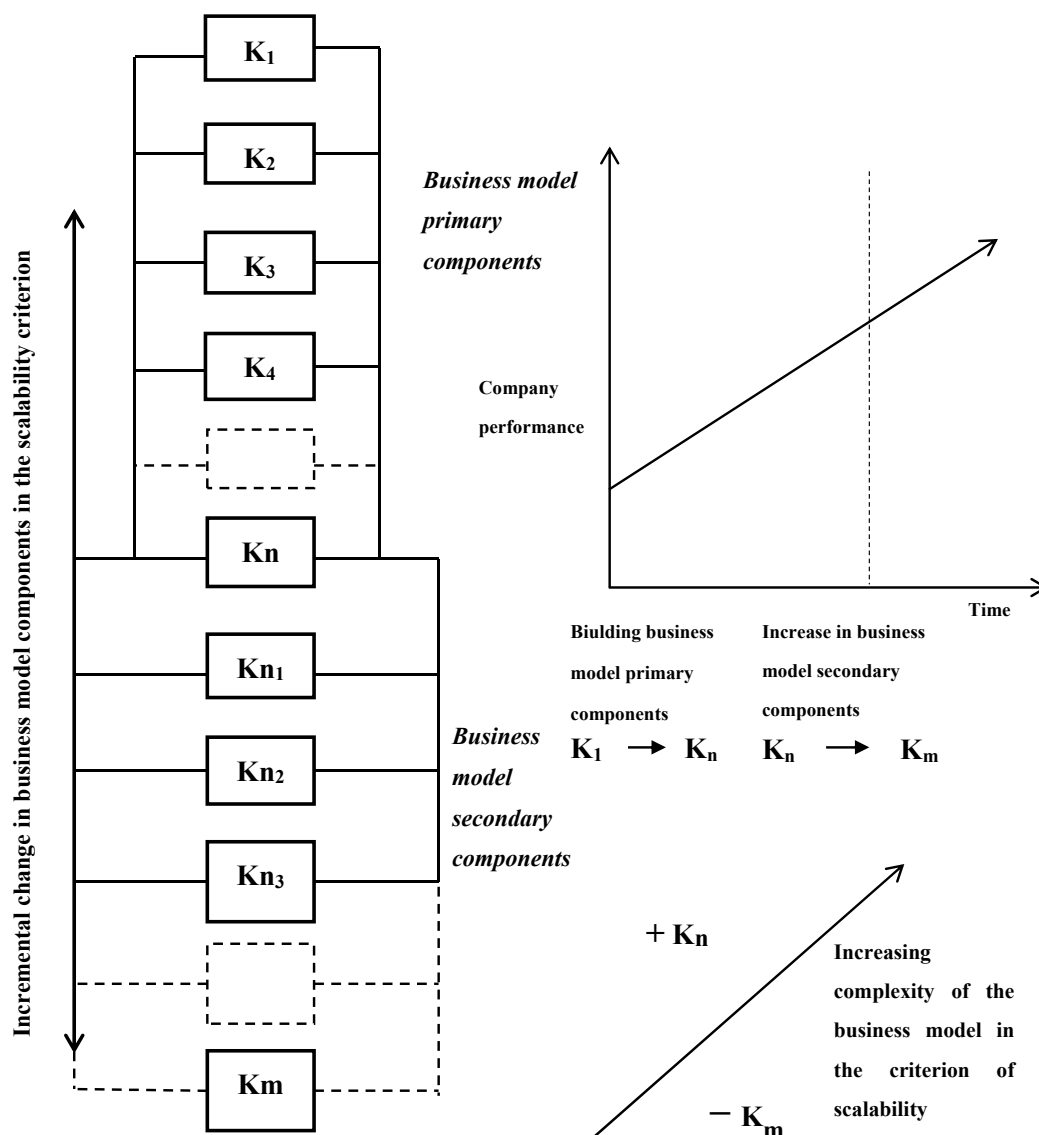


Figure 8. The concept of incremental change in the business model components of the network/company by the scalability criterion.

In order to determine business model scalability, its proper configuration has to be defined. This configuration can be determined using the QCA method. A Qualitative Comparative Analysis (QCA) was first proposed by Charles Ragin in 1987 as a method of analyzing data sets, which include binary variables [143]. By adopting this method, a list of all possible configurations of n components of the business model can be defined which affect its scalability in the context of the impact that this configuration has on the performance of the company embedded in the network.

It is worth noting that the QCA integrates qualitative and quantitative research methods [144].

Table 4 presents the matrix of possible configurations for a business model built with four components, along with defining the key configurations for this relationship.

Table 4. The model matrix of possible configurations for a business model built with four components, along with defining the key configurations for this relationship.

Configuration	Component 1	Component 2	Component 3	Component 4	High Performance
1	0	0	0	0	
2	0	0	0	1	
3	0	0	1	0	
4	0	0	1	1	
5	0	1	0	0	
6	0	1	0	1	
7	0	1	1	0	
8	0	1	1	1	1
9	1	0	0	0	
10	1	0	0	1	
11	1	0	1	0	
12	1	0	1	1	
13	1	1	0	0	
14	1	1	0	1	1
15	1	1	1	0	
16	1	1	1	1	

For example, high company performance is achieved with configurations 8 and 14 of the business model. In the case of configuration number 8: High Performance = 1 if K1 = 0 and K2 = 1 and K3 = 1 and K4 = 1

In the case of configuration number 14: High Performance = 1 if K1 = 1 and K2 = 1 and K3 = 0 and K4 = 1

High performance is, therefore, a variable dependent on the configuration of independent variables (business model component 1, component 2, component 3 and component 4) observed in such a way that all 16 possible configurations could be evaluated. The configuration assessment process can be repeated for the primary components of the business model. Then components can be added or removed and it is possible to evaluate with what configurations the company can achieve high performance. It is very important as scalability, by adding and removing components, focuses on quantitative assessment. The premise of business model scalability is a dynamic change in the number of its components, which is quantitative in nature. Additionally, achieving the configuration of components favorable to high performance is qualitative. In this context, it is reasonable to use the QCA method.

9. The Operationalization of Scalability in Sustainable Business Models of Hybrid Organizations

In order to perform the operationalization of sustainable business model scalability, the first step is to define a sustainable business model canvas composed of the so-called primary components. Primary components are also called indispensable components, without which a business model cannot exist.

In the scientific discourse on the operationalization of scalability in the sustainable business models of hybrid organizations, a nine-component business model canvas by A. Osterwalder and Y. Pigneur [73,145,146] was applied (Figure 9). The structure of this model is focused on the operationalization attributes of the business model helping the company to achieve high performance.

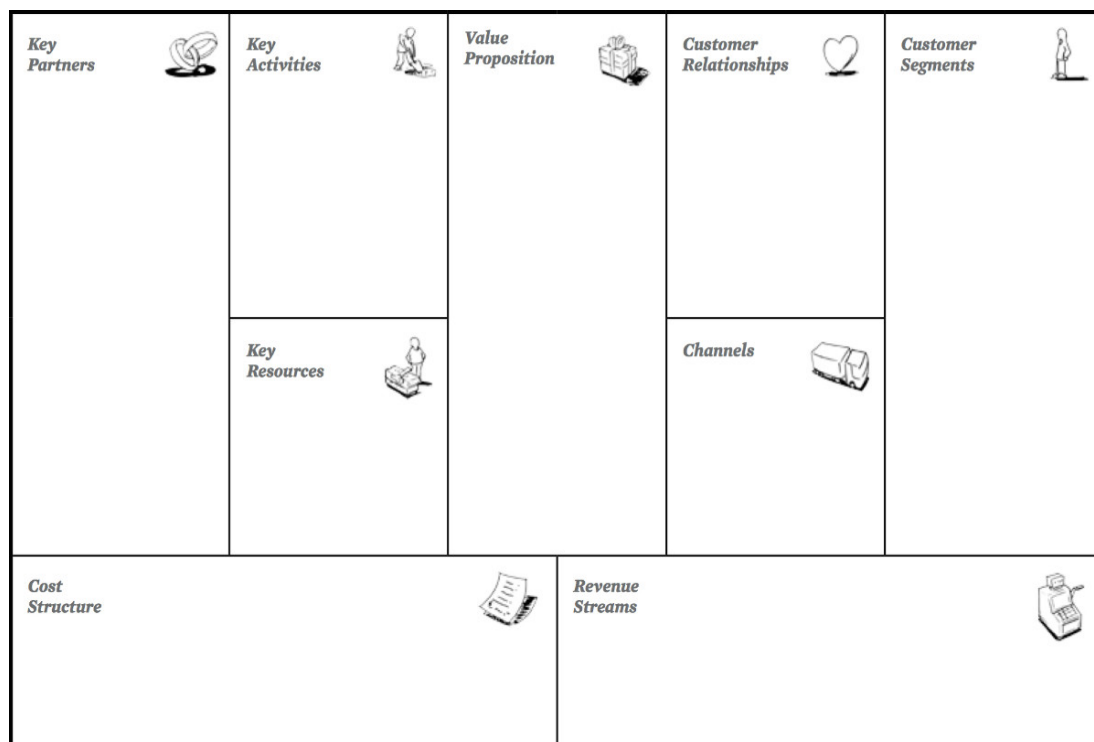


Figure 9. Business model canvas by A. Osterwalder, Y. Pigneur [73,145,146].

Based on the verification of network attributes defined in the literature and described in Section 3, key network attributes have been identified which, selected by multivariate bibliographic analysis, shape its business model, determining the network development in a given function of time. The use of multivariate analysis aimed to reduce a large amount of collected data and information to several important categories, which could be used as a subject of further analysis and to obtain groups of objects homogeneous in terms of properties describing them, which then makes it easier to determine their key properties.

Assuming that business model scalability is associated with the functioning of the company in the network environment, the attributes of this model are focused precisely on the network. Therefore, while reviewing network attributes, the canvas of a networked, scalable business model consisting of its key attributes which determine that the company is embedded in this environment may be proposed (Figure 10).

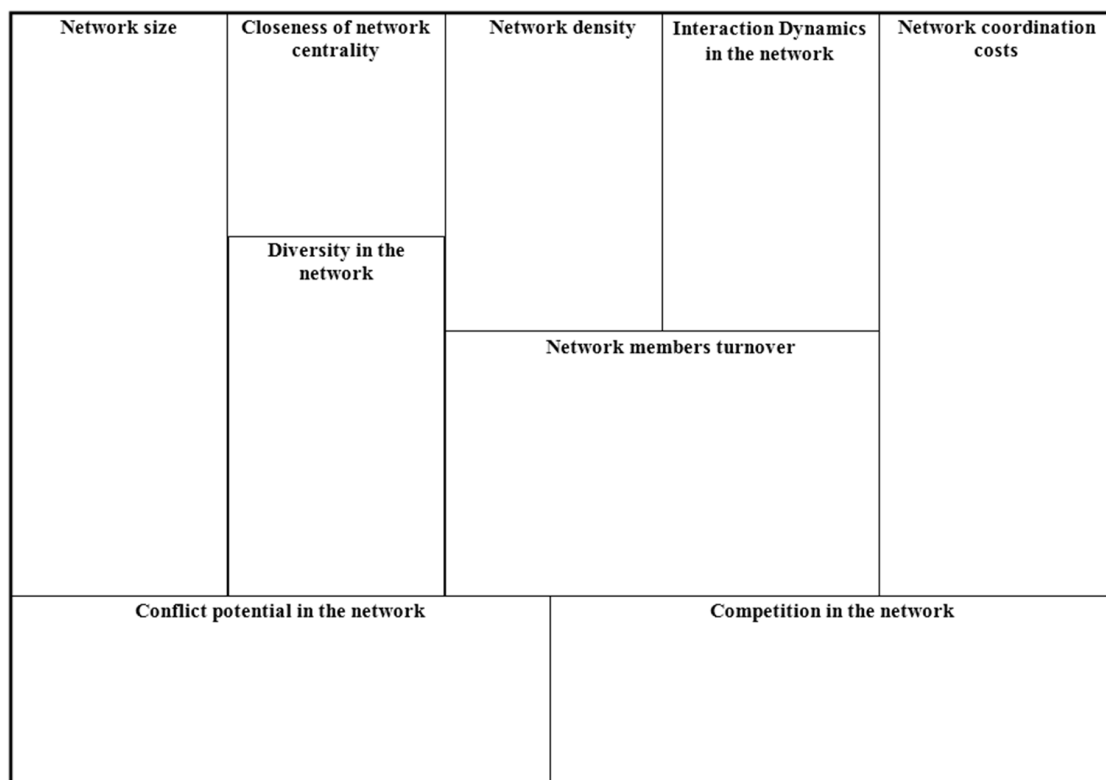


Figure 10. The canvas of a networked scalable business model.

The proposed nine attributes of a networked, scalable business model make it possible to use it in the network.

While ensuring the ability of the company to survive, it is important to find mechanisms for functioning by which, by following the principles of sustainability, business continuity is ensured, its values are created, and high performance is achieved at the same time.

The proposal for a nine-component canvas of a sustainable business model based on longitudinal research and bibliographic research is shown in Figure 11.

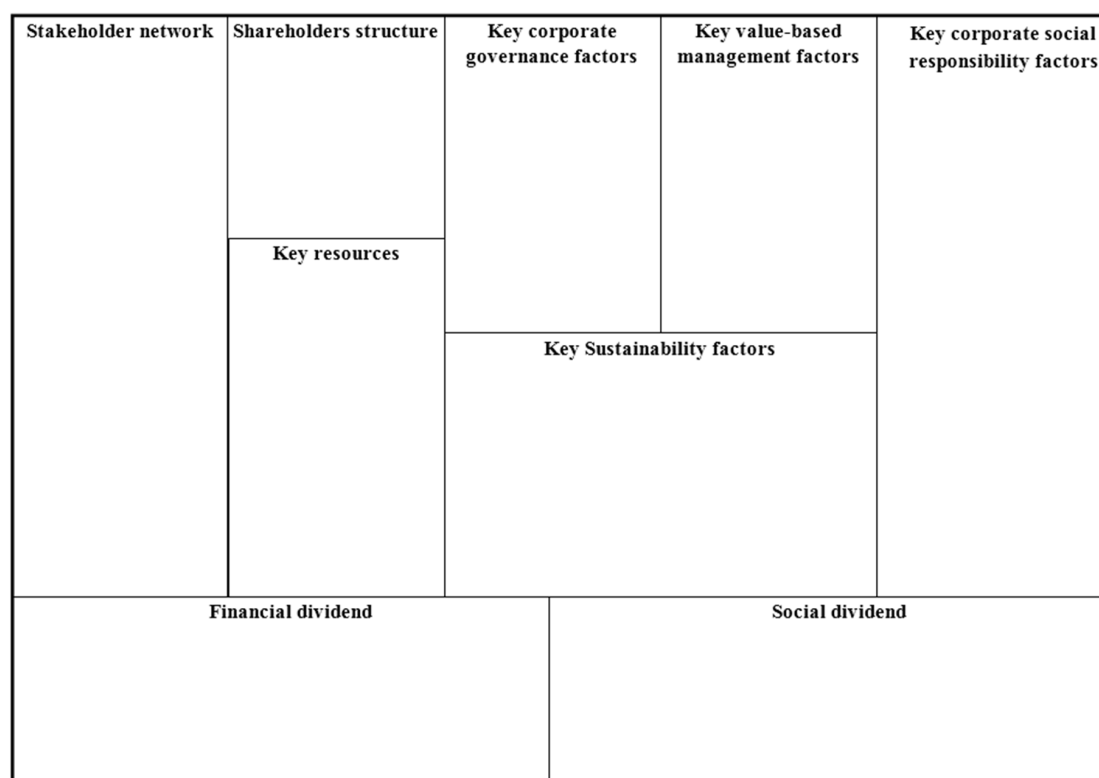


Figure 11. Sustainable business model canvas composed of primary components.

The next step in the operationalization of a scalable business model is to determine mechanisms for key features of the business model that affect its scalability. This is described in Table 5.

Table 5. Key features of the business model affecting its scalability.

No.	Key Features of the Business Model Affecting Its Scalability	Adopted Operationalization Mechanisms
1.	Dynamics	Shaping changes in the business model configuration dynamically.
2.	Adaptability	Continuous adaptation to permanent changes.
3.	Repeatability	Continuous repetition of behavior patterns using the business model and generating reproducible value materializing in increased profit.
4.	Coherence	Ensuring continuous business model integrity for its maximum functionality.
5.	Economization	Business model commercialization at fixed time intervals.
6.	Profitability	Ensuring continuous profit from the business model.
7.	Innovation	Creating innovative behavior while still being a leader. Avoiding imitation in building a business model.
8.	The ability to migrate	Searching, adding, removing and subsequently configuring business model components obtained from networks surrounding the company.
9.	Availability	Ensuring the possibility of using the business model at any time and place. The possibility of interfering with the business model quickly.
10.	The scale of impact	Continuous expansion of the usage of the business model. Expanding the boundaries of business.

The next step of operationalization for the defined primary components of a sustainable business model is to determine the mechanisms for their scalability, as shown in Table 6.

Table 6. Scalability mechanisms for a sustainable business model attribute.

L.P.	Primary Component of a Sustainable Business Model	Scalability Mechanisms Used for a Sustainable Business Model Attribute
1.	Stakeholder network	Seeking synergy, symbiosis and symmetry between various stakeholders in the company.
2.	Shareholders structure	Seeking the common goal and common values in the functioning shareholders structure.
3.	Key resources	Seeking optimal configuration mechanisms based on own resources.
4.	Key corporate governance factors	Seeking a coherent system for the exchange of information, data and knowledge in the process of mutual reporting and supervision.
5.	Key corporate social responsibility factors	Seeking correlations between corporate social responsibility factors.
6.	Key value-based management factors	Seeking correlations between value-based management factors.
7.	Key Sustainability factors	Seeking correlations between sustainability factors.
8.	Financial dividend	Applying the principle of sustainable dividends.
9.	Social dividend	Applying the mechanisms creating social capital in conjunction with the expectations of the various groups of stakeholders.

The primary components should be extended by the secondary components, which, for a sustainable business model, have been proposed in Table 7. It is also necessary to define scalability mechanisms for the secondary attributes of a sustainable business model, as shown in Table 8.

Table 7. The list of secondary sustainable business model components.

No.	List of Secondary Sustainable Business Model Components
1.	Quality of a product/service
2.	Innovation of a product/service
3.	Environmental performance of a product/service
4.	Product safety
5.	Technologies
6.	Trust
7.	Company image and brand awareness
8.	Competence
9.	Relationships with customers
10.	Social capital

Table 8. Scalability mechanisms for the secondary attributes of a sustainable business model.

No.	Secondary Components of a Sustainable Business Model	Scalability Mechanisms Used for the Sustainable Business Model Attributes
1.	Quality of a product/service	Seeking high quality products/services with regard to ensuring repeatability and standardization
2.	Innovation of a product/service	Seeking a high level of innovation while achieving a high quality of products/services
3.	Environmental performance of a product/service	Seeking the mutual fulfillment of environmental criteria, taking into account qualitative criteria, implementing the principles of ecological quality.
4.	Product safety	Seeking a high level of safety while maintaining procedural conduct and implementation of the standardization principles.
5.	Technologies	Seeking mechanisms for optimum configuration at the level of conceptualization and operationalization of technological solutions.
6.	Trust	Seeking standards of conduct and implementation of mutual communication principles so that trust is not destroyed.
7.	Company image and brand awareness	Seeking the principles of building brand value while implementing the standardization principles.
8.	Competence	Seeking mechanisms for the optimum configuration of staff qualifications, training, experience and skills.
9.	Relationships with customers	Seeking mechanisms for mutual communication and mutual exchange of values in order to ensure optimum value for value relationships.
10.	Social capital	Seeking mechanisms for mutual communication to develop social potential and social participation.

The next step taken in order to determine sustainable business model scalability for the defined components is applying the QCA (Qualitative Comparative Analysis) method described in the previous section.

The process of configuration assessment involves repeating actions aimed at adding or removing components from the business model's primary components and then the secondary ones and assessing in which configurations the company can achieve high performance.

10. Discussion

Scalability and sustainability of the business model seem to be an important area of scientific exploration of strategic management mechanisms. Scalability is important for constantly arising dilemmas by seeking answers about to what extent to expand or reduce business models while maintaining high company performance. Sustainability is important as a way to ensure the continuity of business using the owned business model is continuously sought. After multidimensional reflections, the following conclusions, which are the source of scientific debate, are presented below:

- (1) Scalability and sustainability are key attributes of the business model of the hybrid organization.

- (2) In order for a business model to be sustainable, it must first of all be scalable.
- (3) A hybrid organization is an organization, which has a scalable business model that can be sustainable as long as possible, achieving high performance.
- (4) An effective business model is a model of an organization that, due to the proper configuration of its attributes, is capable of scalability and sustainability.
- (5) A scalable and sustainable business model should be built from primary and secondary attributes.
- (6) Primary attributes are non-transferable and secondary attributes of the business model can be added or removed depending on the strategic context of the company.
- (7) Scaling depends on the ability of the business model to expand or be reduced.
- (8) The adopted operationalization mechanisms should create a pattern of behavior which ensures that the adopted business model is used to the full extent.
- (9) Defined attributes that make up the configuration should ensure business model functionality such that the company achieves high performance.

11. Conclusions

It is essential to use scalability in the conceptualization and operationalization of a sustainable business model of hybrid organizations in the network environment to achieve their high performance. The search for the appropriate business model configuration in the system of controlling its components incrementally seems to be an important factor in determining its functioning, ensuring adequate dynamics. The adopted and described logic of using scalability as a key attribute of a sustainable business model can provide a platform for further implementation and discussions aimed at searching for mechanisms of enhancing company performance. Using the primary and secondary components of the business model, configured by using the QCA method, provides a chance to match a business model to the most effective structure.

To sum up the theses contained in the paper, the core conclusions that are the basis for further scientific discussion should be defined.

- (1) The developed assumptions of the business model scalability concept indicate that the concept of scalability is a management science theory that is possible to develop further, especially because of the constant search for features describing its scalability
- (2) The proposed attributes of sustainable business model scalability are important to increase the chance of survival and development in a difficult, dynamically challenging market environment.
- (3) Skillful scaling of the business model in time is a core attribute of companies that are characterized by the ability to change.
- (4) Business model scalability is not an easy issue in the research process. This is due to the fact that scalability is based on a set of quality features describing the company's business model at any given time. The more accurate the description of the business model configuration is, the easier it is to capture the components responsible for business model scalability.
- (5) Scalability is a temporary feature, which can be easily lost, for example, when an inefficient configuration of linked business model components appears. Therefore, there is a need to continuously measure and monitor the characteristics describing business model scalability.
- (6) The performance of the business model depends on its scalability which results from the dynamics of adding and removing individual components, and this can very often be the result of unconscious actions taken by managers or unplanned effects of configuration changeability.
- (7) Scalability is therefore a development concept that in times of environment changeability becomes a determinant and condition of the survival of modern companies.

Theoretical and research limitations resulting from the above reflections include:

- (1) A small amount of research on business model scalability.
- (2) The complex nature of the interpretation of business model sustainability.

- (3) Variability in the environment that gives rise to new research dilemmas related to the features and attributes of business models.

The author believes that on the basis of longitudinal and bibliographic research, it can be assumed that the hypotheses are proven.

- Hypothesis 1. Scalability and sustainability are key determinants of building a business model of the hybrid organizations embedded in a network environment.
- Hypothesis 2. The network environment is favorable to building sustainable business models that are highly scalable.
- Hypothesis 3. In order for a business model of the hybrid organizations to be sustainable, it must first of all be scalable.

The author has proven the hypotheses based on the above research.

Conflicts of Interest: The author declares no conflict of interest.

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