

Article



Trust as a Key Factor in Shaping the Social Business Model of Water Supply Companies

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Received: 23 August 2019; Accepted: 16 October 2019; Published: 18 October 2019



Abstract: The current principles of doing business differ radically from those that were applied a few years ago. Global economic crises have shown that business must have a more social character. This gave rise to the creation of management solutions that would guarantee the satisfaction of a wide range of corporate stakeholders. In this context, ideas based on social potential began to emerge. As a consequence, the concept of social business models was born, accompanied by an attempt to search for the best business models possible in order to build the appropriate configuration of their components. According to the authors, an attribute of trust may be such a component based on which effective social business models can be built. As water supply companies are social enterprises, they have become the object of scientific research in this case. The purpose of the article is to determine the position of trust in the construction and application of social business models of water supply companies. The scope of the article includes scientific research into water supply companies in the most industrial region of Poland, Upper Silesia, with the most extensive and dense water supply network in the country. In this article, the AHP (analytic hierarchy process) method was used to conduct research. The aim of the analysis was focusing on the issue of trust as a key factor in shaping the social business model of the company. In the questionnaires, respondents were asked to answer questions on the following issues: trust-based organizational behavior at the company; trust-based social capital at the company; trust-based relationships at the company; trust-based processes and activities at the company; trust-based risk at the company; and the trust-based business model at the company. The adopted logic of the scientific argument conducted indicates that trust and its place and role in the social business model of a water supply company have a significant impact on the social and economic performance of the water supply company, and as a consequence, on increased social responsibility towards stakeholders as well. Trust even stabilizes the organization and its business model; it is also a value catalyst and neutralizes the potentially negative impact of the organization on other entities gathered around it. Trust as a stabilizer can also affect the consistency and scalability of the social business model of a water supply company.

Keywords: trust; social aspects; business model; water supply industry

1. Introduction

Today's mechanisms of modern business are diametrically different than those of a few years ago. In modern management, so-called soft success factors have begun to play a special role. This approach was triggered by many aspects related to the change of approach to the economy, where on the one hand, social expectations began to be appreciated, and on the other hand, digital transformation started to dominate, which led to new perspectives for the development of modern companies. Companies wishing to achieve high performance had to open themselves up to being a multidimensional cooperation. The principles of doing business such as total competition ceased to be

the only determinants of organizational success. A strong need to build mutual relationships emerged so that transactions in which a wide range of stakeholders were the recipients could be concluded. Therefore, such business attributes that would make mutual business relationships credible and that would give value to various types of business actors were sought. As a consequence of such strategic thinking, the use of trust in business emerged. The concept of trust gained importance especially in sectors that were purely focused on relational links, of which the water supply industry is undoubtedly one such sector. Companies that create it, especially those that supply water to the inhabitants of cities and municipalities, are so-called hybrid companies, which simultaneously pursue economic and social goals. In order to be able to achieve them, water supply companies began to build social business models whose key objective is to achieve economic goals while fulfilling the social expectations of their main stakeholders. Thus, the social business model became a tool for generating value for stakeholders, a platform for logical, socially and economically justified business, and a conversion of payments into sustainable profits. From such a cognitive perspective of understanding this business, an important scientific problem has arisen to be solved; namely, what attribute or component of the social business model is most significant in terms of the achievement of high performance by water supply companies? Therefore, the authors decided to investigate whether trust is such a component of the social business model of water supply companies. As a result, the following question was asked: what is the place and role of trust in the conceptualization and operationalization of the social business models of water supply companies?

In view of the above, a significant scientific gap emerges, insofar as there is no extensive scientific research related to defining trust as an important component of the social business model of water supply companies. This applies above all to building a business model in terms of its configuration, where trust is one of its components. Interfaces between trust and other components of the social business model are also becoming crucial. The defined scientific gap also refers to determining the impact of trust embedded in the business model on the high performance of water supply companies.

In this case, the authors understand high performance as results achieved in both economic and social terms in accordance with the principles of responsibility and accountability. The social business model is understood as a specific combination of components that fill its canvas, which ensures the impact of the business model on social and economic aspects. Such a model is capable of monetizing and creating social values for key actors enjoying various benefits of this business model. From this perspective, a significant scientific problem needing to be solved emerges from the scientific gap; namely, determining the importance and hierarchy of trust in the social business model of water supply companies.

According to this interpretation, trust can be understood through the prism of different requirements for business and the economy. Trust can be used as a factor in organizational behavior; it can also be used to build social capital and mutual relationships between stakeholders. It can also be implemented as an element of processes, a risk-limiting factor and as a component of a business model.

The purpose of the article is to determine the position of trust in the construction and application of the social business models of water supply companies. The scope of the article includes scientific research into water supply companies in the most industrial region of Poland, Upper Silesia, with the most extensive and dense water supply network in the country.

2. Trust as an Important Attribute in Management: The Critical Literature Review

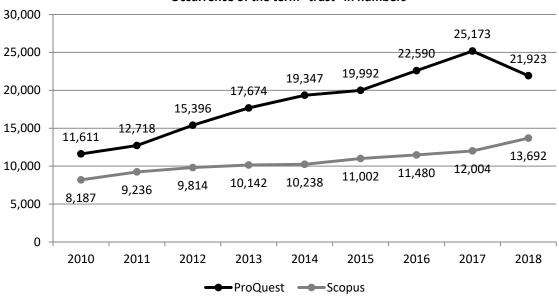
The principles of today's strategic management of companies are changing dynamically in the eyes of many contemporary managers. Hard key success factors have become insufficient for the holistic, comprehensive system of making business decisions under the conditions of strong community pressure, their ever-increasing expectations in relation to the new business dimension, market pressures and risks. Hence, the questions arose of what attribute of import in the economy and business can be strengthened by a message the market of generating new value propositions, and how one is to build mutual inter-organizational and interpersonal relationships in the sphere of modern management. It seems that trust can be an attribute that links many important areas of management. In attempting to review the scientific literature on trust, attention should be paid to the unambiguous definition of this concept, which can be viewed from many different economic, social, sociological, philosophical and other perspectives. It is also related to the fact that after entering the word "trust" in the Google search engine, there are as many as 1,870,000,000 results, which indicates the multidimensional use of this word in many areas of life and other spheres of existence [1]. The occurrence of "trust" keywords was analyzed by means of two huge databases provided by the Scopus and ProQuest portals. Scopus is a database of abstracts and citations from peer-reviewed publications, such as journals, scholarly books and conference proceedings. The analysis of the data available on the portal enables a comprehensive review of the global results of scientific research in the fields of exact sciences, technology, medicine, social sciences, art and the humanities. However, ProQuest's extensive resources and tools support research and learning, publishing and dissemination, as well as the purchasing, management and discovery of library collections. At the beginning, the word "trust" was examined using a data set in the ProQuest database. The database contains the following peer-reviewed sources:

- Scholarly journals;
- Conference articles and materials;
- Journals;
- Trade journals;
- Scholarly works.

The rationale for choosing these two databases as the basis for keyword analysis was the fact that they are two of the largest scientific databases in the world. Scopus is the largest database of abstracts and citations from peer-reviewed publications: journals, scholarly books and post-conference proceedings. It provides a comprehensive overview of global research results in the fields of exact sciences, technology, medicine, social sciences, arts and humanities; it also offers intelligent tools for tracking, analyzing and visualizing research results [2]. ProQuest is involved in supporting researchers and librarians around the world. The company's asset portfolio—including content, technology and thorough specialist knowledge—ensures better research results for users and greater efficiency for libraries and organizations that serve them [3]. In the opinion of the authors, they are representative for determining key issues and their development against the background of the concept of management sciences.

When analyzing bibliometrically collected results from 2010 to 2017, we found a cyclical increase in results that include the term "trust" (Figure 1). It was only in 2018 that the occurrence of the concept decreased (21,923 results).

Scopus also reported the increased occurrence of the term "trust" over the years. In 2010, it was used 8187 times, increasing in subsequent years to 13,692 in 2018. The data analysis took into account all the existing scientific fields and types of documents appearing in the database (articles, conference papers, reviews, chapters, notes, conference reviews, editions, books, surveys, letters, reports, etc.).



Occurrence of the term "trust" in numbers

Figure 1. Number of occurrences of the word "trust" in the ProQuest and Scopus databases. Source: own study based on [4,5].

A critical review of the literature was used as a research method. The critical review of the literature should be treated as a synthetic, objective and reliable summary of a specific theoretical area [6]. The process of a critical review of the literature consists of: (1) the identification of published and unpublished papers on the subject of interest to the researcher (the process of collecting literature); (2) the evaluation of separate works in terms of the problems raised therein and the solutions; and (3) the documentation of the actions undertaken (research report) [7–9]. Such logic allows not only for the proper selection of the literature, but above all it reduces the risk of errors related to the correct inference resulting from the results of scientific research. This solution was adopted for the critical review of the literature in the field of trust.

It is important to note that trust can be viewed from many perspectives. However, there are various perspectives of the concept of trust in terms of the strategic business model component, which is particularly highlighted by the authors. Such consideration of trust gives it special significance in the context of creating social and economic values which affect the overall high performance of the organization.

Trust can be understood as a mechanism of social solidarity in post-industrial and network societies, based on monitoring the integrity of the other person in an open and continuous manner [10], among others. Trust can also be seen as a kind of calculation [11]. It is also defined as an "informal norm" that reduces the costs of economic transactions that supervise the conclusion of contracts, the settlement of disputes and the enforcement of formal agreements [12]. Trust is used to reduce conflicts and risk in transactions, strengthen satisfaction and increase partner involvement in exchange [13]. It is said that, in social sciences, trust is an infinite process [14]. Trust absorbs uncertainty and complexity, which are inherent in business and social relationships [15]. Trust is important in order to understand the world, the functioning of entities, decision-making processes and social relationships [16]. The positive opinions of other people are conducive to building trust [17]. Paliszkiewicz sees trust as the belief that another party: (a) will not act in a way that is harmful to the trusting firm, (b) will act in such a way that is beneficial to the trusting firm, (c) will act reliably and (d) will behave or respond in a predictable and mutually acceptable manner. Trust can be seen as a bridge between past experiences and the anticipated future [18]. Trust is not static; it is a dynamic process that evolves according to the development of the relationships [19].

Knowledge-based trust relies on information rather than deterrence [20]. Trust alters the perceived risks of opportunistic behavior and the choice of a preferred governance structure, leading to a marginal,

substitutive effect of trust versus formal governance ex ante to the formation of an alliance [21]. Trust is the degree to which a person is willing to attribute good intentions to others and believe in the words and actions of other people [22]. Trust is also a mutual conviction that none of the parties will take advantage of the weaknesses of the other party [23]. Nowadays, trust is treated as a social aspect of a relationship that can be actively shaped by various entities [24]. According to F. Fukuyama, trust is a mechanism based on the assumption that other members of a given community are characterized by "honesty and cooperative behavior based on commonly shared norms" [25]. Trust is used to determine personality traits and beliefs, as well as in relation to social structures and behaviors [26]. Baier believes that "trust is reliance on others' competence and willingness to look after, rather than harm, things one cares about which are entrusted to their care" [27]. Trust is a hybrid phenomenon that is somewhere between calculation, predictability, good will and voluntary exposure to risk that the trusting party may fail [28]. Trust can be regarded as an organizational principle; i.e., a way of solving the problem of interdependence and uncertainty, a kind of heuristic that allows for the interpretation and representation of information and a criterion for choosing appropriate behaviors and routines in coordinated activities [29]. Trust is the foundation of social interactions; it is a valuable resource in organizational and interpersonal relationships [30]. Trust is often a specific expectation. We want someone else to be an opportunist in words, deeds and decisions [31]. Trust is also "an attitude based on the past, but extending to the future" [32]. To trust means to believe and expect that a partner of a relation will act in support of the common interest [33]. Institutional trust concerns general organization and company management. It includes factors such as technologies, procedures, systems, resolutions, key goals and vision, competences, policy and justice [34]. Trust can be vertical or horizontal. Vertical trust refers to the relationship between the superior and the subordinate, characterized by asymmetry and dependence in terms of promotion, increased salary or work safety [35]. Horizontal trust is the belief that employees' actions can be relied on [36].

To sum up the review of the concept of trust, it is important to pay attention to the multidimensional understanding of trust in management sciences and beyond. In this approach, the authors consider trust a key attribute of the social business model, and even state that it is a trust-based social business model. In this interpretation, trust is a component of the business model and is also its key attribute. Trust also interacts with other components of the social business model in many ways. Thus, trust is defined here as a component of the business model that enables and facilitates the construction of a social dialogue platform for determining the impact of the business model on achieving high social and economic performance. For this reason, an examination of trust and its significance in the configuration of the business model was undertaken.

In this context, an important element which justifies the adoption of such logic is a list of definitions of trust with reference to the attributes highlighted in its definitions, which ensure the possibility of determining the structure of scientific research. Table 1 (below) was a substantive platform for constructing the research model in this article.

No.	Author	Definition of Trust	Attribute
1.	Simmel, 1975 [37]	Trust falls between the knowledge and the ignorance of man. Thus, it is a hypothesis about his behavior.	Behavior
2.	Hardin, 1988 [38]	 Trust consists of three elements: a person who trusts, a person who is trusted, the relationship between these people, that is, A trusts B to do X. Trust is a relational phenomenon, that is, it always refers to the relationship between specific entities. Trust is an alternative to credibility which, ensured by various social solutions, institutions or standards, allows one to take actions based on confidence rather than trust. 	Relationships, Credibility

Table 1. Presentation of selected	l definitions of tr	ust in relation to it	s individual attributes.
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No.	Author	Definition of Trust	Attribute
3.	Putnam, 1995 [39]	Trust is an element of social capital that "refers to features of a social organization such as trust, norms and networks that can improve the efficiency of society by facilitating coordinated actions."	
4.	Lewicki and Bunker, 1996 [20]	Trust is based on the calculation of costs and benefits, i.e., one of the parties will not pursue its own interest at the expense of the partner.	Benefit
5.	Fukuyama, 1997 [25]	Trust depends on the recognition of norms and values commonly shared by the group, as well as the sacrifice or postponement of satisfying your needs for the benefit of the group.	Sacrifice
6.	Inglehart, 1997 [40]; 1999 [12]	Social trust is examined in three dimensions: - vertical—public (in relation to various types of institutions)—it is rational, and changes quickly and in a predictable way as a result of new experiences - horizontal, private, - horizontal, generalized. Social trust, which is determined by expectations and feelings of a moral nature, is more difficult to achieve, because cultural changes are much slower.	Experiences
7.	Williams, 2000 [41]	Distributed trust occurs between people who are separated by relatively large social distance. Interpersonal trust occurs between specific individuals.	Relationships
8.	Putnam, 2000 [42]	General (generalized) trust is a second level of social capital, so-called bridging trust. It exists in external networks comprising people from different groups. Generalized trust is one of the dimensions of the so-called social trust, which is the basis of institutional trust.	Open group
9.	Szreter and Woolcoc, 2004 [43]The first level of trust binding social capital presents strong social networks, connects people who already know each other and have personal (private) trust. They can be combined into closed groups, excluding other individuals.		
10.	Giddens, 2009 [44]	Passive trust is "based on the acceptance of symbols of power established by custom or tradition." Active trust, which is a mechanism of social solidarity in post-industrial and network societies, is "based on monitoring the honesty of the other person in an open and continuous manner."	Symbol, Honesty
11.	Botsman and Rogers, 2010 [45]	Trust which is present in the sharing economy is a specific counterpart to money in transactions within the sharing economy, because failure to perform the contract results in a loss of trust, which in turn will limit or even eliminate the possibility of participating.	Equivalent of money
12.	Tanz, 2014 [46]; Grabner-Kräuter and Kaluscha, 2008 [47]	Trust in the sharing economy is characterized by the following: - lack of interpersonal contacts at the initial stage, i.e., making decisions on sharing, - direct interactions do not accompany transactions, - indirect relationships play an important role in the virtual community, - includes actual participation.	Relationships
13.	Rifkin, 2016 [48]	Trust is a key feature of the sharing economy (). The sharing economy functions more on social trust rather than anonymous market forces	Sharing
14.	Kamal and Chen, 2016 [17]	life Trust in relation to users on internet platforms is built on the basis of	
15.	Mazzella and Sundararajan, 2016 [49]	Trust (and credibility) built among Internet platform users includes a combination of several elements that make up the D. R. E. A. M. S. framework: - declaring personal information (name, surname or photo) in the profile (Declared); - rating and opinions of other users (Rated); - financial commitment ahead of the completion of the service (Engaged); - recording the level of user activity on the platform (Active); - content verification and limiting public change (Moderated) - connecting the profile with other accounts on social networks, e.g., Facebook, LinkedIn (Social).	Credibility

Table 1. Cont.

When making a broad summary of the definitions presented, it is primarily important to look at them in a holistic manner, which ensures the development of one's own cognitive thoughts, in turn creating descriptive factors that will also allow for the determination of the principles of scientific research into this issue. In addition, the scientific analysis of the content in these definitions should enable accurate scientific conclusions which synthesize this issue in strategic, tactical and operational terms. Therefore, the authors define trust as a key attribute of the social business model considered in two dimensions:

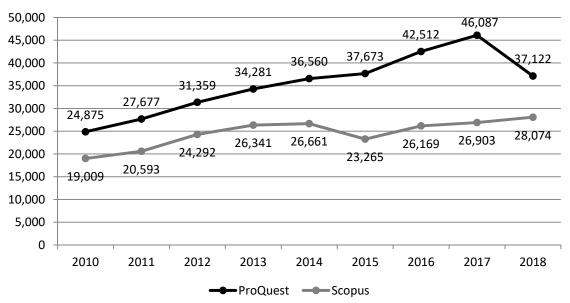
- 1. In terms of the object: as a factor which determines the structure of the social business model, which enables a configuration that ensures high performance in both social and economic terms.
- 2. In terms of the subject: as a platform for communication and mutual dialogue between organizational stakeholders

The scope of trust, therefore, includes these two dimensions, which should be considered and used simultaneously.

The critical review of the selected definitions of the concept of trust unambiguously shows that this concept is understood and interpreted in many ways. This definitely hinders the scientific processes of reasoning. However, some generalizations can be made by classifying key words describing the issue of trust.

3. A Business Model as a Key Ontological Entity in Strategic Management: Critical Literature Review

The concept of a business model in strategic management is currently one of the most frequently explored issues in the context of other areas, especially the high performance of companies and their competitive advantage in a very difficult economy. During the critical review of the literature on the concept of the business model, similar methodological solutions were used, as in the description of the concept of trust in the previous section of the article. When entering the term "business model" in the browser, this phrase appears in approximately 6,880,000,000 results [50]. Analyzing the occurrence of the term "business model" bibliometrically in the ProQuest database, it can be noted that, from 2010 to 2017, an increased occurrence of the above term was observed (Figure 2). It declined to only 37,122 items in 2018.



Occurrence of the term "business model" in numbers

Figure 2. Number of occurrences of the phrase "business model" in the ProQuest and Scopus databases. Source: own study based on [4,5].

The situation is similar when it comes to the concept of the "business model" in the Scopus database. The occurrence of the term has increased over the years. For example, in 2010 there were 19,009 related search results, while in 2018 it was recorded in 28,074 search results.

In such an interpretation, a multidimensional and logically justified critical review of literature in the field of the concept of the business model should be undertaken, as there are many different definitions, approaches and perspectives.

It is related, among others, to high dynamics in strategic management mechanisms. Today, the success of an organization and its ability to operate continually is not only determined by strategy, but also the business model, its components and attributes and its ways of monetization and socialization. Monetization ensures the delivery of money streams to the organization and socialization ensures that its reputation and brand are built and maintained. The business model is, inter alia, "an architecture for the product, services and information flows, including a description of the various business actors and their roles; a description of the potential benefits for the various business actors; and a description of the sources of revenue" [51]. A business model "depicts the content, structure and governance of transactions designed so as to create value through the exploitation of business opportunities" [52]. A business model "creates a heuristic logic that connects technical potential with the realization of economic value" [53]. The business model "is a reflection of the company's strategy" [54]. "A business model is a simplified and aggregated representation of the relevant activities of a company. It describes how marketable information, products and/or services are generated by means of a company's value-added component. In addition to the architecture of value creation, strategic as well as customer and market components are taken into consideration, in order to achieve the superordinate goal of generating, or rather, securing the competitive advantage" [55]. The general business model consists of four components in the form of a "magic triangle":

- 1. Customer—who are our target customers?
- 2. Value proposition—what do we offer our customers?
- 3. Value chain—how do we manufacture products?
- 4. Profit mechanism—why is it profitable? [56]

A business model is a simplified representation of a profit-aimed venture, consisting of its essential elements and their interconnections [57]. "[Business models] are, at heart, stories that explain how enterprises work [and answer the following questions]: Who is the customer? And what does the customer value? It also answers the fundamental questions every manager must ask: How to make money in this business? What is the underlying economic logic that explains how we can deliver value to customers at an appropriate cost?" [58]. At the most basic level, the business model is defined only in terms of the company's economic model. The concern is with the logic of profit generation. "Relevant decision variables include revenue sources, pricing methodologies, cost structure, margins and expected volumes" [59]. "Business models have a multivalent character as models. They can be found as role models that might be copied or presented as nutshell descriptions of a business organization: simplified, short-hand descriptions equivalent to scale models. We can think of them not only as capturing the characteristics of observed kinds in the world (within a taxonomy), but also as abstract ideal types (in a typology)" [60]. "A business model describes the rationale of how an organization creates, delivers and captures value" [61]. The concept of the business model "generally refers to the articulation between different areas of a firm's activity designed to produce a proposition of value to customers. Two different uses of the term can be noted. The first is the static approach—as a blueprint for the coherence between core business model components. The second refers to a more transformational approach, using the concept as a tool to address change and innovation in the organization, or in the model itself" [62]. "The business model expresses the logic, the data and other evidence that support a value proposition for the customer, and a viable structure of revenues and costs for the enterprise delivering that value" [63]. The business model "makes visible how the company acquires and uses different forms of capital (physical, financial and intellectual) to create value." (p. 243) "The concept is holistic, multi-level, boundary-spanning and dynamic" [64]. "In broad terms, a business model can be defined as having three constituent elements: the value proposition that defines how products and/or services are presented to consumers (i.e., how value is captured), the value network that defines how the business is articulated with other businesses and internally (i.e., how value is created) and the context of regulations, incentives, prices, government policy, etc. (i.e., how value is situated within the wider socio-economic framework)" [65]. "The business model is a description of an organization and how that organization functions in achieving its goals" (e.g., profitability, growth, and social impact [66].) The definitions of the business model presented above illustrate the complex nature of the issue that can be implemented in many areas and perspectives. They give, however, a certain form of interpretation allowing for the capture of those components that allow for proper scientific inference, as well as practical decision making in the real conditions of the economy.

The summary presented aimed primarily to demonstrate the dynamics of the development of the phenomenon of the business model in management sciences. This is particularly important in relation to the business model as an ontological entity, especially in strategic management. Due to the fact that the business model can be, among others, presented subjectively and objectively, the number of phrases which appear is very large. These dynamics are also important because of the demonstration of the strength of the business model's impact on many areas of the organization's functioning, as well as the degree of exploration and exploitation of this concept by management theorists and practitioners. It is also worth referring to the fact that currently the business model and its capabilities and ability to monetize and create social and economic value determine the dynamics of the organization which functions in a network environment.

4. A Business Model and a Social Business Model: An Interpretive Approach

In order to be able to better justify the logic of the adopted scientific argument pertaining to social business models, it is important to show selected approaches between the business model and its specific construction, which is the social business model.

The classical approach to business models classifies business models in static and dynamic terms. In static terms, it can be understood as the architecture of the flow of products, services and information [51]; it also depicts the content, structure and governance of transactions designed to create value through the exploitation of business opportunities [52], creates heuristic logic that connects technical potential with the realization of economic value" [53], a system of interdependent activities that transcends the focal firm and spans its boundaries [67], and a simplified and aggregated representation of the relevant activities of a company [55]. In dynamic terms, the business model can be understood as a change in the perceived logic of value creation by a corporation [68]; initiatives aimed at creating new value by questioning existing industry business models, roles and relationships in certain geographical market areas [69]; and a small adjustment process consisting of voluntary and emerging changes between permanently connected key components [62]. Business models can also be viewed from both a subjective and an objective perspective. In subjective terms, the key to choosing a business model is the way of embedding it in the value chain; e.g., as an operator, integrator, conductor and distributor. For example, a networked business model describes how a strategic business network creates value. The development of new technologies requires new skills and resources; therefore, in addition to innovators and manufacturers, many other actors, such as suppliers, users, distributors and others are linked together in a network of functions, activities and actors [70]. In objective terms, the key to interpretation is the configuration of the business model and its interfaces. Configuration is important when business models need to be modified. Very often, the change takes place at the level of the value chain, the modifications of which are forced by trends in the sector or industry [71].

Table 2 presents several types of business model decomposition using a component approach. They are essential for the process of the flexible design of business models [71].

Operator	Graphical Representation	Definition		
Splitting		Splitting the business model component into at least two new components of the model		
Substituting		Substituting the business model element with another component performing the same tasks		
Augmenting		Establishing a new component (new components) of the business model		
Inverting		Changing certain features to features that are opposed to them		
Porting		Removing a component to narrow down the business model function		
Porting		Transferring a business model component (or the entire model) from one domain to another		
Solid lines: components and connections Dashed lines: components and connections removed from the model Double lines and gray figures: new components and new links introduced to the model				

Table 2. Examples of solutions in	n the sphere of business	model decomposition.
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As part of the solution presented in Table 2, the examples of actions serving the decomposition of the business model can be distinguished. These include inserting new components into the business model architecture, replacing one component of the business model with another, and model reconfiguration (changing a larger number of components), as a result of which other options are also radically changed. In addition, the design and decomposition of the business model are based on the following formulas for shaping them: splitting, substituting, augmenting, inverting, excluding and porting [72].

As the configuration approach is particularly emphasized in relation to this article in particular, the key definitions of the business model are presented below in Table 3 with the main term in relation to configuration management.

Source	Definition of the Business Model		
Timmers, 1998 [51]	The business model is the "architecture of products, services and information flows, including a description of the various business actors and their roles; description of potential benefits for various economic entities; description of sources of income" (p. 4)		
Amit and Zott, 2001 [52]	"A business model depicts the content, structure and governance of transactions designed so as to create value through the exploitation of business opportunities." (p. 493)	Structure	
Finnie, 2000 [73]	"The main components of the business model [are] customer interface, core strategy, strategic resources and value network. These basic components are linked by three, bridging components: customer benefits, configuration of activities and company boundaries" (p. 10)	Interface	
Chesbrough and Rosenbloom, 2002 [53]	The business model is "heuristic logic that connects technical potential with the realization of economic value" (p. 529). "The business model provides a coherent framework that uses technological characteristics and potential as input and convers them through customers and markets into economic outputs" (p. 532)	Framework	
Hawkins, 2002 [74]	"In other words, the business model describes how an enterprise gears up its resources, planning capabilities and processes to the revenue producing potential of a specific product or service. By focusing on this relationship to revenue		
Knyphausen-Aufsess and Meinhardt, 2002 [57]	The business model is a simplified representation of a profit-aimed venture, consisting of its essential elements and their interconnections.	Simplification	
Magretta, 2002 [58]	"[Business models] are, at heart, stories – stories that explain how enterprises work [and answer the following questions,] Who is the customer? And what does the customer value? It also answers the fundamental question that every manager must ask: How do we make money in this business? What is the underlying economic logic that explains how we can deliver value to customers at an appropriate cost? " (p. 87)		
Mangematin et al., 2003 [75]	"A business model is a description of the commercial relationship between a business enterprise and the products and/or services it provides in the market." (p. 299)	Description of the relationship	
Mitchell and Coles, 2003 [76]	"A business model is a combination of "who," "what," "when," "where," "why," "how" and "how much." The organization uses them to provide its goods and services and developing resources to continue its efforts" (p. 17)	Combination	
 "Business models are not conceived as a purely management-related concept, but embrace a broad spectrum of organisational activities, from the operational (processes) to the strategic level. Moreover, given the evolution of networked organisations and the growing adoption of eBusiness, the definition of business models has been extended to include inter-organisational activities, roles, and elements as well." (p. 308) 		Spectrum of activities	
Rappa, 2004 [78]	"A business model is a method of doing business. All business models specify what a company does to create value, how it is situated among upstream and downstream partners in the value chain, and the type of arrangement it has with its customers to generate revenue" (p. 34)	Type of agreement	
Downing, 2005 [79]	The business model "is a set of expectations about how the business will be successful in its environment" (p. 186)	Set of expectations	
Morris et al., 2005 [59]	"At the most rudimentary level, the business model is defined solely in terms of the firm's economic model. The concern is with the logic of profit generation. Relevant decision variables include revenue sources, pricing methodologies, cost structures, margins, and expected volumes." (p. 727)	Logic	
Johnson et al., 2008 [80]	"A business model, from our point of view, consists of four interlocking elements that, taken together, create and deliver value [] Customer value proposition [] Profit formula [] Key resources [] Key processes []"(p. 60f)	Related elements	

Table 3. Key definitions of the business model together with the presentation of the main term inrelation to configuration management.

Table 3. Cont.

Source	Definition of the Business Model	Main Term in Relation to Configuration Management
Richardson, 2008 [81]		
Zott and Amit, 2008 [82]	""In this paper, we [] introduc[e] the firm's business model as a new contingency factor that captures the structure of a firm's boundary spanning exchanges and [ask]: How do the firm's business model and its product market strategy interact to impact firm performance?"(p. 1)	Structure
Doganova and Eyquem-Renault, 2009 [83]	The business model is a narrative and calculative device that allows entrepreneurs to explore a market and plays a performative role by contributing to the construction of the techno-economic network of an innovation." (p. 1559)	Narrative and calculative device
Baden-Fuller and Morgan, 2010 [60]	"Business models have a multivalent character as models. They can be found as exemplar role models that might be copied or presented as nutshell descriptions aden-Fuller and of a business organisation: simplified, short-hand descriptions equivalent to scale	
Casadesus-Masanell and Ricart, 2010 [54]	nd Ricart, 2010 "A business model is [] a reflection of the firm's realized strategy" (p. 195)	
Dahan et al., 2010 [84]	"Firms [and] NGOs use business models to structure and map the mechanisms whereby they intend to deliver value [] to their target public, and how the necessary costs and revenues will be structured." (p. 329)	Structured and mapped mechanisms
Demil and Lecocq, 2010 [62] "The business model concept generally refers to the articulation between different areas of a firm's activity designed to produce a proposition of value to customers. Two different uses of the term can be noted. The first is the static approach—as a blueprint for the coherence between core business model components. The second refers to a more transformational approach, using the concept as a tool to address change and innovation in the organization, or in the model itself." (p. 227)		Articulation
Osterwalder and Pigneur, 2010 [61]	"A business model describes the rationale of how an organization creates, delivers, and captures value." (p. 14)	Rationale
Svejenova et al., 2010 [85]	Individual business models describe activities, the organisation, and the implication of strategic resources that organisational agents use to pursue their interests and motivations and create value and revenues in the process.	Implication of resources
Teece, 2010 [63]	Teece, 2010 [63] "A business model articulates the logic and provides data and other evidence that demonstrates how a business creates and delivers value to customers. It also outlines the architecture of revenues, costs, and profits associated with the business enterprise delivering that economic value."	
Weiner et al., 2010 [86]	nrm. Therefore, we must consider which concepts and relationships allow a	
 "A business model represents a strongly simplified and aggregated illustration of the relevant activities of a venture. It explains how the value creation component of a venture creates marketable information, products, and/or services. Besides the architecture of value creation, the strategic, as well as the customer and market component are considered to realise the superordinate goal objective of generating respectively securing the competitive advantage. The business model reflects the systemic output of an organisation, the way the organisation works and creates value." 		Simplified and aggregated illustration

Table 3. (Cont.
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Source	Definition of the Business Model		
Yunus et al., 2010 [88]	"Among the plethora of definitions [of business models], three elements are usually distinguished: the product/service proposed to customers, the way the company is organized so as to deliver this product and service to its customers, and the revenue model." (p. 311)	Elements	
Zott and Amit, 2010 [72] (pp. 216-226)	"We conceptualize a firm's business model as a system of interdependent activities that transcends the focal firm and spans its boundaries. The activity system enables the firm, in concert with its partners, to create value and also to appropriate a share of that value [and is defined by] design elements—content, structure and governance—that describe the architecture of an activity system; and design themes—novelty, lock-in, complementarities and efficiency – that describe the sources of the activity system's value creation." (p. 216)	System of independent activities	
Bieger and Krys, 2011 [89] A business model describes the basic logic of how an organisation creates value by defining 1) the organisation's value offering, 2) how the value is created within the organisational system, 3) how the created value is communicated and delivered to the customer, 4) how it is captured in the form of revenues by the company, 5) how the value is distributed within the organisation and to stakeholders, and 6) how the basic logic of value creation is refined to ensure the sustainability of the business model in the future.		Logic	
Evans et al., 2012 [90]	"Business model is the way in which a business chooses to create, deliver, capture and exchange value" (p. 10)	Exchange	
Beattie and Smith, 2013 [64]	The business model "makes visible how the company acquires and uses different forms of capital (physical, financial and intellectual) to create value." (p. 243) "The concept is holistic, multi-level, boundary-spanning and dynamic." (p. 244)	Concept	
Schallmo, 2013 [91]	A business model is the underlying logic of a company that describes the value that is created for its customers and partners, how it is created, and how the created value flows back to the company as revenues. The created value allows for a differentiation from competitors, a consolidation of customer relations, and the realization of a competitive advantage.	Logic, consolidation of relations	
Skarzynski and Gibson, 2013 [92]	"We define a business model as a conceptual framework for identifying how a company creates, delivers and extracts value. It typically includes a whole set of integrated components, all of which can be looked on as opportunities for innovation and competitive advantage" (p. 112)	Conceptual framework, a set of integrated components,	
Geissdoerfer et al., 2016 [93]	"We describe business models as simplified representations of the elements and interactions between these elements that an organisational unit chooses in order to create, deliver, capture, and exchange value." (p. 1218)	Simplified representations of the elements, interactions	
Wells, 2016 [65]	"In broad terms, a business model can be defined as having three constituent elements: the value network and product/service offering that defines how the business is articulated with other businesses and internally (i.e., how value is created); the value proposition that defines how products and/or services are presented to consumers in exchange for money (i.e., how value is captured); and the context of regulations, incentives, prices, government policy and so on (i.e., how value is situated within the wider socioeconomic framework)." (p. 37)	Constituent elements	
Wirtz et al., 2016 [55]	"A business model is a simplified and aggregated representation of the relevant activities of a company. It describes how marketable information, products and/or services are generated by means of a company's value-added component. In addition to the architecture of value creation, strategic as well as customer and market components are taken into consideration, in order to achieve the superordinate goal of generating, or rather, securing the competitive advantage. To fulfil this latter purpose, a current business model should always be critically regarded from a dynamic perspective, thus within the consciousness that there may be the need for business model evolution or business model innovation, due to internal or external changes over time"(p. 41)	Simplified and aggregated representation, architecture	
Massa et al., 2017 [66]	"A business model is a description of an organisation and how that organisation functions in achieving its goals (e.g., profitability, growth, social impact,)." (p.73) Source: [94].	Description	

The table above clearly indicates the interpretative importance of this approach. Therefore, searching for key components for the business model seems to be an important area of both scientific research and the applicable capabilities of business models.

The two most common approaches to the concept of the business model are:

- 1. A narrow approach, in which the business model is understood as a way of generating revenue.
- 2. A broad approach, in which the business model is understood as a way for the individual to create value [95].

The classification of business models by the criterion of the similarity of goals and the concept of model building can allow for their division into five groups:

- Models based on profitability determinants;
- Models shaping competitive advantage;
- Strategic models as a unique combination of assets creating value and competitiveness;
- Models focused on creating and using value;
- Models of an innovative business concept [96].

At present, the business model is used in a wide range of tasks, inter alia, to:

- Understand business logic;
- Design the forms of adaptation to external changes;
- Undertake strategic planning and business modeling, and conduct strategic experiments;
- Develop new conceptual solutions for the product line and form of business organization;
- Create a single communication space in relation to the logic of organization and business management;
- Train professional managers in the style of successful adopted organizations [97].

Referring to the above considerations, it is important to present the concepts of social business models against this background. The modern world dominated by information technologies evokes the need to stimulate social issues, not only in the sphere of interpersonal relations but also the implementation of assumptions and social economy solutions. A social factor in the economy of the new generation is important, and building communities and mutual relationships based on social media and expedient platforms for communication and service provision creates a new image of the economy. The social aspects of conducting business and public activity have created opportunities for developing the new forms of building social business models due to the dynamic development of the relational nature of market participants entering into multilateral interactions. If there is a social market economy, the mechanisms of social business models are revealed. A social enterprise is "a company that is cause-driven rather than profit-driven, with the potential to act as a change agent for the world" [98]. "Social enterprises" are a subset of such activities in which commercial models are used as the vehicle by which social objectives are achieved [99]. A social enterprise refers to an organization that conducts business activity, both to increase income and to further improve social missions [100]. Social and economic value management—the perspective of trying to find a balance in the context of the attributes of social business models—is an interdisciplinary issue. Social business models go beyond traditional economics, pointing to the intangible nature of value. Business models that create effective social value factors have a chance to be successful in the market. Social business models generate strategic value that in some cases turns into valuable products or services, and sometimes creates higher-level social value. The first attempts to conceptualize and operationalize social aspects in business models were related, for example, to the definition of sustainable business model archetypes [101]. Factors that drive social business models are the innovative ways of integrating social impact on the offer and creating company value [102]. Social business models are strongly linked to hybrid business models. Hybrid business models and hybrid strategies can be used by hybrid

organizations. Considering the importance of hybrid organizations in strategic management, selected elements of company hybridization can be defined:

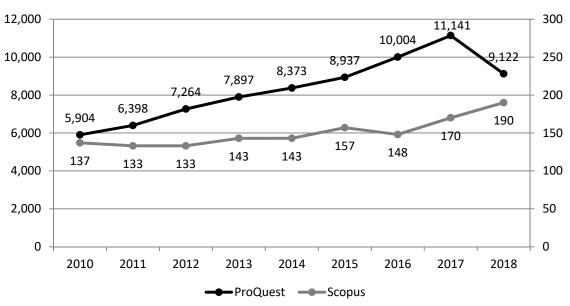
- 1. The possibility of combining hierarchy and virtualization principles in the company structure.
- 2. The possibility of combining systemicity and networkedness principles in management.
- 3. The possibility of jointly structuralizing and blurring the boundaries of the company.
- 4. The possibility of achieving company goals as seen from a short, medium and long-term perspective.
- 5. The possibility of dichotomous confrontation of the various resources of the company to achieve competitive advantages in the market [103].

From this perspective, the issue of social business models takes on special significance, mainly in relation to the quest for high performance.

5. The Social Dimension of the Business Models of Companies and the Attributes of Trust

The social conditions of today's business shape the strategic organizational behavior of companies in a significant way. The social dimension of business is gaining in importance due to the growing expectations on society from the economy, not only in the context of economic conditions but at the level of the dynamics of expectations in the social, environmental and ethical dimension. This involves a new look at the business and its key management tools and concepts, especially with reference to the place and role of business models in strategic management and its key attributes. In such a constructive comparison, a cause-and-effect relationship occurs between the way of building and implementing business models and their key components which determine the high performance of enterprises with such business models. As regards the economy, the link between the social business models of companies and the attribute of trust, as a component which becomes a platform for dialogue, relationships, transactions and the continuity of inter-organizational links in today's business, becomes important. In view of the above, it is important to define the concept of a social business model based on a critical review of the relevant literature. Social businesses are market-based businesses that explicitly focus on social goals, rather than the maximization of economic gains [98]. Wilson and Post (2013) mainly identify the requirements and provide recommendations for social business model design: (1) The development of social business models requires a holistic view. The integration of social and economic missions is associated with a new design, or a radical redesign of the activity system, including the value chain and the related stakeholder; (2) social business design and refinement require patience and time; (3) the social mission requires consistent alignment with capital and governance structures, such as the ownership status and the selection of investors [104]. A. Osterwalder and Y. Pigneur (2010) use the term "beyond-profit business models." This category is then divided into the third-party funded model and sustainable business models (triple bottom line model) [61]. Susanne Dohrmann, Matthias Raith and Nicole Siebold classify every social business model according to two characteristics: first by the degree to which it strategically monetizes social value creation, and second by the level of market revenue that it generates in excess of expenditures with the underlying social mission [105]. Social business models can be implemented by social enterprises, which are defined as any business venture created for a social purpose mitigating/reducing a social problem or a market failure and to generate social value while operating with the financial discipline, innovation and determination of a private sector business [106]. Social businesses in particular address a social need while generating profits typically reinvested into the business itself, but there is limited understanding of the ways through which social businesses achieve scale [107]. Data analysis methodology by Xaver Neumeyer and Susana C. Santos combined individual (outdegree, indegree, out-twostep and betweenness centrality) and network-level metrics (multiplexity and density) to socially reconstruct an entrepreneurial ecosystem related to sustainable entrepreneurial ventures [108]. In this approach, the definition of a specific business ecosystem, in which trust-based social business models can be built and exploited, becomes more significant. This is a very important issue because, in this approach, not

only is economic capital created but, above all, specific social capital, which has large potential for the creation of proper organizational behaviors also associated with the positive intentions of management towards mutually cooperating business partners. Results in the ProQuest and Scopus databases, which were created as a result of combining the concepts of "trust" and the "business model," were bibliometrically analyzed. By entering the concept of the "trust-based business model" in the Scopus database, the following results were obtained (Figure 3): 2010—137 items, 2011—133, 2012—again, 133, 2013 and 2014—143, 2015—157, 2016—148, 2017—170 and 2018—190, the most results for a single year during the research period. Taking into account the ProQuest database, those results are much higher. The minimum number appeared at the beginning of the analyzed period in 2010, amounting to 5904, and gradually increased until 2017. At that time 11,141 results were recorded in the database. However, in 2018 there was a decrease to 9122.



Occurrence of the term "trust-based business model" in numbers

Figure 3. Number of occurrences of the phrase "trust-based business models" in the ProQuest database. Source: own study based on [4,5].

The summary presented of the phrase "trust-based business model" is particularly important in the context of the results of the scientific research discussed in the article. This phrase concerns a special construct which is a trust-based business model. Such a business model defined in terms of components can simultaneously enable the creation of social and economic values. This may particularly apply to hybrid enterprises, which include water supply companies. In addition, such a business model is becoming a social business model, which is particularly important in organizations focused on achieving sustainable, reasonable profit, while being open to a wide range of its stakeholders. It is also important that trust itself is firmly embedded in the context of the concept of the so-called "social impact business model;" i.e., a concept based on building and operationalizing business models that strongly affect society, or even cause changes in the behavior of entire groups or communities. Hence, the key is to define the very concept of a trust-based business model. According to the authors, such a model is one of which the key component that determines the ability to achieve a high level of economic and social efficiency in the long and short term alike—is trust. At the same time, trust is a source of building positive relationships and contributes to the mutual creation of positive intentions in business. In this case, trust is a factor that creates positive social interaction, especially for mutual relationships between various groups of these communities. Hence, the specific dynamics of the appearance of this phrase indicates the importance of this issue in management sciences and scientific trends in this area.

6. The Hybrid Nature of Water Supply Companies and Trust in Terms of Social Values

Referring broadly to the entities studied and described in this article, it is particularly important to refer to the fact that water supply companies are in fact hybrid organizations. What does this mean for them and for their stakeholders? It is important that they pursue a variety of goals, which can often be mutually exclusive to some extent, while in other cases they complement one another. Everything depends on the adopted context of understanding and running this business. However, the most important thing is skillfully balancing economic and social goals in achieving the so-called reasonable profit and satisfying all the key stakeholder groups at the same time. From this perspective, hybrid enterprises also struggle at an ideological level with finance, concerned by the economic focus of lenders, and the tension this creates with social and environmental value capture [109].

In contrast to the literature on hybridity, the literature on sustainable business models suggests holistic models of sustainable entrepreneurship can exist, wherein the social, environmental and economic value can be mutually supportive [110]. There are many perspectives of the hybrid approach. A. Jabłoński and B. Kożuch draw attention to the fact that the following perspectives may occur.

- Hybridity in the criterion of an organization's goal;
- Hybridity in the criterion of methods and management concepts;
- Hybridity in the criterion of the regulated and business market;
- Hybridity in the criterion of the application of ontological entities [103].

Linking hybridization with business scalability is also an important issue. Hybrid organizations should have scalable business models [111]. This dependence is particularly visible through achieving the economic goals of water supply companies, while being able to create a social effect. The very notion of a reasonable profit, i.e., one that ensures investment opportunities as well as offering an acceptable price for sharing and the use of water by the residents of a given city or municipality, already creates the appropriate organizational behavior and management methods and concepts. Therefore, the incorporation of a scientific discussion on trust into such logic becomes obvious. In this case, trust is a kind of specific link between social dialogue and its outcome. Stakeholders of a water supply company buy trust in the product, service and organization, hoping that the organization will ensure the continuity of the product's use with an appropriate, acceptable price and quality. The profitability threshold of a water supply company within the framework of controlling solutions should shift towards an acceptable price and the achievement of a reasonable profit. This is also a hybrid perspective. Hence, trust becomes a factor in creating social values associated with economic values. The co-creation of value and its exchange is of particular importance in terms of social business models where the value network plays a leading role in the flow of this value between stakeholders. In this area, a social factor also develops, creating a new view of the assumptions of traditional economics, and in particular the identification of the overriding objective of company existence; namely, generating profit.

The hybrid nature of water supply companies has a significant impact on both the attributes of their business models and their configuration. Hence, it is important that these business models are social business models, because they are open to a wide range of stakeholders, while the product itself, i.e., water production, has an impact on society. In this approach, trust matters for the product itself and for references to the water supply company. Focusing strategic attention on trust as an important component of the business model seems justified. The authors are aware of the different interpretations of the concept of trust, but in this case they treat them as a strategic factor of a component nature, which is located in the canvas of the social business model create strategic decision-making processes related to the social and economic value generated. From this perspective, the following scientific research becomes significant in this area.

7. Research Methodology by Means of the AHP (Analytic Hierarchy Process) Method

7.1. Introduction

As part of the research presented in the article, water supply companies located in the Silesia province, which is the most industrialized area in Poland, with the largest and densest water supply network, were analyzed.

Water supply companies were selected for the research according to the following premises and assumptions:

- They pursue social and economic goals, thus being so-called hybrid organizations;
- Their fundamental product is water supply, and its customers must trust its quality and the continuity of supply;
- Local communities are their key customers;
- They must meet economic, social and environmental requirements;
- They are most often public, so-called high trust entities;
- Their profit is so-called reasonable profit and costs must be reasonable, which is strongly verified by the local community.

At the same time, it is worth noting that water supply companies are so-called civilian intervention services. This means that, in addition to proactive action related to water supply and water and wastewater management, their key social task is to respond to any crisis situation that could, for example, lead to a deterioration in the quality of water supplied, or no supply at all. Thus, the speed of responding to disturbances in this system is, among other things, a trust-building factor between the water supply company and the local community.

According to this interpretation, water supply companies are significantly different from other market players, which is also due to their public and missionary nature based on trust and sector and product specificity.

Trust in water supply companies also fills the space that strengthens inter-entity relationships, which results in the economic and social efficiency discussed herein. It is also worth noting that, by introducing the principles of reasonable profit in these organizations, political influence on price formation for services is eliminated. From this perspective, trust and the strengthening thereof becomes a strategic factor which influences the key ontological entities of organizations, which include the business model, strategy, business processes and strategic projects. It is important to find the strength of the influence of trust on the construction of these ontological entities by asking the question: to what extent does trust influence the decision-making mechanisms resulting from the formation of these ontological entities? Trust also shapes the dynamics and durability of relationships, which can translate into the achievement of social and economic efficiency.

In this context, attention should be paid to a certain uniqueness of the scientific research conducted. Until now, there has not been a great deal of scientific research undertaken into embedding trust in the configuration of the social business model, especially in relation to the conditions of water supply companies. The importance of this topic in management sciences is evidenced by the fact that the presented relationship between trust and the social business model seems to be expedient due to the increasing importance of management intentions in building business models. It is in this context where the soft elements of management, which include trust, play an increasingly important role in strategic management mechanisms. If we treat trust as an important component of the business model, it becomes, to some extent, an ontological entity that can be effectively managed to increase the effectiveness of the business model, and consequently the entire organization. It can be assumed that the scientific novelty of this article is primarily associated with the presentation of logic and the ranking of trust in the construction of the social business model of water supply companies. It is also important to determine the place and role of trust in the very conceptualization and operationalization of the social business model of water supply companies.

ensures the consistency and scalability of the social business model. Hence, according to the authors, a strong scientific gap arises, and the related scientific problem is the determination of the priority weight of trust in the configuration of the social business model of water supply companies, together with the definition of mutual interfaces with other potential components of this business model. The scientific problem is related to building social business models based on the trust of companies in the water supply sector. A cognitive gap is related to the lack of sufficient research into the construction of social business models, as well as their optimal and scalable configuration in terms of determining the place and role of trust, especially in water supply companies. Figure 4, below, shows the structure of the assumed research model used in the AHP study in relation to trust.

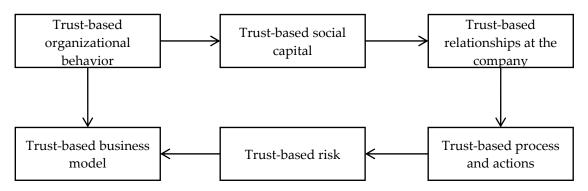


Figure 4. The structure of the assumed research model used in the AHP study in relation to trust. Source: own study.

The sample examined consisted of 10 surveys which were completed by water supply companies. The responses obtained were analyzed by means of the AHP method presented below.

The individual stages of the AHP analysis are presented in a structured manner are as follows:

- 1. Building the hierarchical model: presenting a decision-making problem as individual hierarchy levels:
 - a. A superior goal: the highest level of the hierarchy.
 - b. Decision criteria or other factors: intermediate levels which affect the degree of achievement of the overall goal; the number of levels depends on the complexity of the problem.
 - c. Decision options: the lowest level of the hierarchy.
- 2. Evaluation by pairwise comparisons—elements at each level of the hierarchical model and the related element from the higher level are compared.
- 3. Determining global (selection criteria) and local (decision options considered) preferences and determining their mutual significance.
- 4. Arranging decision options, taking their share in the implementation of the overriding goal into account.

Decision options at the lowest level of the model hierarchy are subject to comparative assessment. Individual criteria are compared in pairs and the degree of their fulfillment is examined. A comparative assessment, which takes relative ratings into account, leads to the presentation of the matrix of the decision maker's local preferences. The result is the determination of a vector arising from the arrangement of options due to the degree of achievement of the assumed goal.

Local values form the basis for calculating global weights. The global value of an element from a given level is obtained by multiplying the value of its local weight by the value of the global weight of the element at the level immediately above.

Decision options, as the last level of the hierarchical structure, have priorities calculated similarly to what is described above. It proceeds as follows:

- 1. Comparing the importance of decision options in relation to individual sub-criteria. The result is the determination of the importance of individual decision options for the implementation of a given sub-criterion (i.e., local weights obtained).
- 2. In order to obtain partial global weights, the values of local weights obtained and the corresponding global weights for sub-criteria must be multiplied. These values show the share of a given decision option in achieving the main objective through the implementation of the sub-criterion under consideration.
- 3. The sum of the partial global weights of a given decision option is its global weight. The highest weight value is considered the best one and this decision option prevails.

The following is the algorithm for proceeding in the AHP method (Figure 5) for the purposes of presenting the structure of scientific research and the logic of further reasoning.

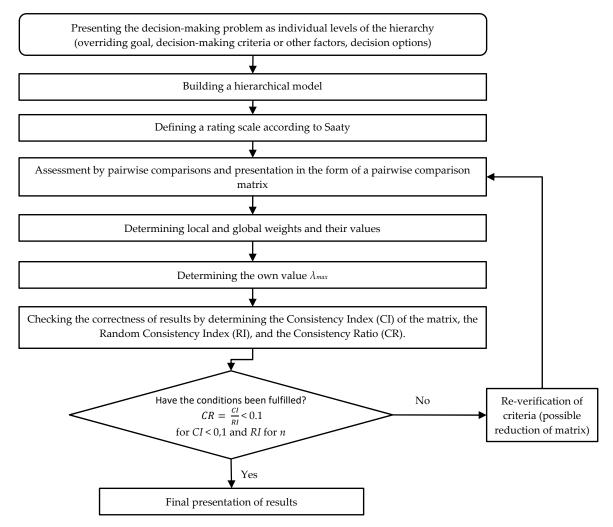


Figure 5. Algorithm for proceeding in the AHP method. Source: own study.

The aim of the analysis was the issue of trust as a key factor in shaping the social business model of the company. In the questionnaires, respondents were asked to answer questions on the following issues:

- Trust-based organizational behavior at the company;
- Trust-based social capital at the company;
- Trust-based relationships at the company;
- Trust-based processes and activities at the company;

- Trust-based risk at the company;
- The trust-based business model at the company.

The following scheme (Figure 6) of the hierarchical model was used in the study:

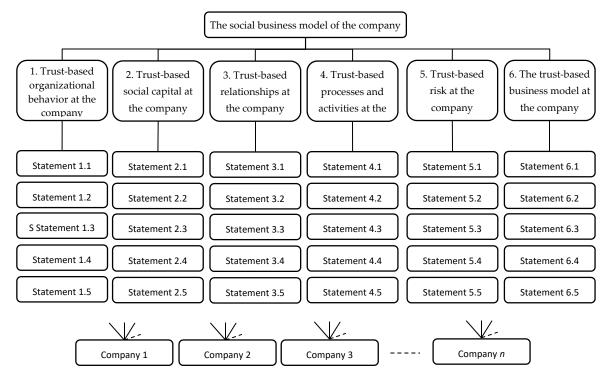


Figure 6. Scheme of the hierarchical model adopted for the study. Source: own study based on [112].

In the adopted AHP method, water supply companies were subject to a comparative analysis. These companies are decision options at the lowest level of the model hierarchy. Six problems were adopted for the analysis, in which the following survey statements were defined:

- 1. Trust-based organizational behavior at the company:
 - Statement 1.1. At our company, trust shapes positive organizational behavior.
 - Statement 1.2. At our company, trust creates positive managerial intentions.
 - Statement 1.3. At our company, employees are characterized by honest and cooperative behavior based on the expressed norms and values.
 - Statement 1.4. At our company, there is an appropriate climate of trust which shapes positive organizational behavior.
 - Statement 1.5. At our company, trust has a special impact on both strategic and tactical-operational behavior.
- 2. Trust-based social capital at the company:
 - Statement 2.1. At our company, trust positively affects the construction of social capital.
 - O Statement 2.2. At our company, social capital is based on mutual trust between stakeholders.
 - Statement 2.3. At our company, trust is a key resource for building social capital.
 - Statement 2.4. At our company, trust positively affects the development of employees' social competences.
 - Statement 2.5. At our company, trust allows us to express the same values, which shape our social capital.

- 3. Trust-based relationships at the company:
 - Statement 3.1. At our company, trust creates mutual relationships.
 - Statement 3.2. At our company, trust improves communication between employees.
 - Statement 3.3. At our company, relationships allow us to apply the same norms of reciprocity.
 - Statement 3.4. At our company, there are continuous interactions and trust-based relationships between employees.
 - Statement 3.5. At our company, trust-based relationships allow us to implement common goals.
- 4. Trust-based processes and activities at the company:
 - Statement 4.1. At our company, trust triggers positive activities.
 - Statement 4.2. At our company, trust allows for less control of processes and activities.
 - Statement 4.3. At our company, trust enables more effective and efficient processes and activities.
 - Statement 4.4. At our company, trust strengthens mutual cooperation both at the level of processes and activities.
 - O Statement 4.5. At our company, mutual trust accelerates decision-making processes.
- 5. Trust-based risk at the company:
 - O Statement 5.1. At our company, trust is a factor which limits the risk of our activity.
 - Statement 5.2. At our company, thanks to mutual trust, its reputation is improved.
 - Statement 5.3. At our company, thanks to mutual trust, there are no behaviors that are different from those expected.
 - Statement 5.4. At our company, trust limits mutual distrust.
 - Statement 5.5. At our company, the risk is mitigated, limited by mutual trust between employees.
- 6. The trust-based business model at the company:
 - Statement 6.1. At our company, trust is a key attribute/component of the business model.
 - Statement 6.2. At our company, trust shapes the business model.
 - Statement 6.3. At our company, trust positively affects other attributes/components of the business model.
 - Statement 6.4. At our company, trust strengthens other components of the business model.
 - Statement 6.5. At our company, thanks to trust embedded in the business model, we achieve a high level of efficiency and effectiveness.

The above criteria and sub-criteria in the form of statements were compared in pairs. Their degrees of fulfillment were examined in the water supply companies surveyed. The criteria were formulated by the authors based on their knowledge of business management issues. The criteria were compared in pairs using the scale below, which is shown in Table 4:

Significance Scale	Explanation
1	No criterion has an advantage over the other in terms of achieving the goal.
3Criterion A has a moderate advantage over option B.5Criterion A has a strong advantage over option B.	

Table 4. Saaty scale used to compare the pairs of criteria.

7.2. Analysis of Basic Data of Water Supply Companies

In addition to data collected in the field of trust as a key factor in shaping the social business model of the company, a brief description of the water supply companies surveyed was presented, so they were asked to respond in the scope of:

- Number of employees:
 - One to nine (micro-enterprise);
 - Ten to 49 (small enterprise);
 - Fifty to 249 (medium-sized enterprise);
 - Over 250 (large enterprise).
- Forms of ownership:
 - Private;
 - O Public.

Among the respondents, 90% of water companies were public enterprises, and 10% were private enterprises (Figure 7). Given the number of employees employed in the enterprises surveyed, 30% of water supply companies employ 10–49 people (a small enterprise), 30% of companies employ from 50 to 249 employees (a medium-sized enterprise), and 40% of companies are large enterprises employing over 250 employees. No company surveyed was a micro-enterprise employing a maximum of nine employees.

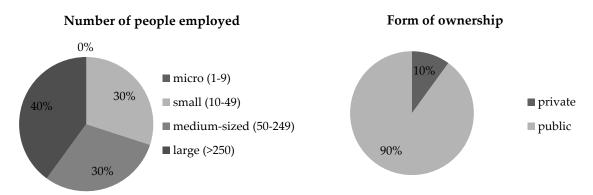


Figure 7. Basic data on water companies surveyed. Source: own study.

7.3. Determination of Global Weights for Given Criteria

Using the Saaty scale, a matrix of comparisons was constructed in pairs of criteria adopted for the study. The $n \times n$ matrix was created, where n is the number of criteria. In this case n = 6, because six criteria were adopted. This matrix presents the advantage of one criterion over the other, and the final comparison gave the order of criteria in terms of final global weights.

Sub-criteria were compared in the same way, obtaining the local scales of sub-criteria. For this purpose, six separate sheets were created in which the comparison matrices were created. These matrices, in turn, were 5×5 , because each group of criteria had a set of five statements (sub-criteria).

It should also be noted that in the AHP method, ratings are inversed. It means that the constructed matrix is consistent in pairs; i.e.,

$$w_{ij} \cdot \frac{1}{w_{ji}} = 1.$$

The comparison matrix, which presents the assessment of the significance of the criteria and the advantages of some criteria over others, was obtained thanks to the necessary knowledge of experts in the management industry. Their necessary participation contributed to obtaining knowledge about the processes taking place in the sphere of business management. Answers to the statements in the surveys show the approaches of managers in water supply companies, which are built based on experience, various priorities or value systems. The AHP method, by means of the comparison scale, directs the person who expresses their opinion on which of the two criteria has a greater advantage over the other. The following (Table 5) presents the matrix of pairwise comparisons:

\mathbf{T} 11 = $\lambda \ell \ell$	1	• •	1	<i>c</i> • • •
Table 5. Matrix s	showing pairwise	e comparisons foi	r particular grou	ns of criteria
Table 5. Matrix s	no mig pair mis	e companiorio ioi	particular grou	po or criteria.

Criteria	1. Trust-based Organizational Behavior at the Company	2. Trust-based Social Capital at the Company	3. Trust-based Relationships at the Company	4. Trust-based Processes and Activities at the Company	5. Trust-based Risk at the Company	6. The trust-based Business Model at the Company
1. Trust-based organizational behavior at the company	1.00	3.00	1.00	3.00	3.00	3.00
2. Trust-based social capital at the company	0.33	1.00	0.33	0.33	0.33	1.00
3. Trust-based relationships at the company	1.00	3.00	1.00	3.00	3.00	3.00
4. Trust-based processes and activities at the company	0.33	3.00	0.33	1.00	3.00	3.00
5. Trust-based risk at the company	0.33	3.00	0.33	0.33	1.00	3.00
6. The trust-based business model at the company	0.33	1.00	0.33	0.33	0.33	1.00
Total	3.33	14.00	3.33	8.00	10.67	14.00

Source: own study.

The above matrix of ratings was normalized by dividing the individual ratings from the criteria (in columns) by the sum of ratings for a given criterion (the sum of ratings from the column) and the W matrix was obtained:

	0.30	0.21	0.30	0.38	0.28	0.21
	0.10	0.07	0.10	0.04	0.03	0.07
147	0.30	0.21	0.30	0.38	0.28	0.21
vv =	0.10	0.21	0.10	0.13	0.28	0.21
	0.10	0.21	0.10	0.04	0.09	0.21
	0.10	0.07	0.10	0.04	0.03	0.21 0.07 0.21 0.21 0.21 0.21 0.07

In the further part of the analysis, the notation of the criteria was shortened to improve the transparency of the entries in the tables:

- Criterion1: Trust-based organizational behavior at the company,
- Criterion2: Trust-based social capital at the company,
- Criterion3: Trust-based relationships at the company,
- Criterion4: Trust-based processes and activities at the company,
- Criterion5: Trust-based risk at the company,
- Criterion6: The trust-based business model at the company.

The values from individual rows of a normalized matrix were added up, and the values obtained were divided by the number of existing criteria (i.e., the number 6), as a results of which weights for each criterion were obtained (Table 6):

Table 6. Normalized pairwise comparison matrix and global weights obtained for the criteria.

Criteria	Criterion1	Criterion2	Criterion3	Criterion4	Criterion5	Criterion6	Weight
Criterion1	0.30	0.21	0.30	0.38	0.28	0.21	0.28
Criterion2	0.10	0.07	0.10	0.04	0.03	0.07	0.07
Criterion3	0.30	0.21	0.30	0.38	0.28	0.21	0.28
Criterion4	0.10	0.21	0.10	0.13	0.28	0.21	0.17
Criterion5	0.10	0.21	0.10	0.04	0.09	0.21	0.13
Criterion6	0.10	0.07	0.10	0.04	0.03	0.07	0.07
							\sum weight = 1

Source: own study.

The weights obtained were ranked from the highest to the lowest value, which were then classified in Table 7:

Ranking	Criterion	Criterion	Weight
1	Criterion1	Trust-based organizational behavior at the company	0.28
1	Criterion3	Trust-based relationships at the company	0.28
3	Criterion4	Trust-based processes and activities at the company	0.17
4	Criterion5	Trust-based risk at the company	0.13
5	Criterion2	Trust-based social capital at the company	0.07
5	Criterion6	The trust-based business model at the company	0.07

Table 7. Ranking of criteria together with global weights.

Source: own study.

The above table shows that the most important criteria in the analysis are Criterion 1, "Organizational behavior at the company" and Criterion 3, "Relationships at the company." Both criteria obtained a global weight of 0.28. The lowest global weights were obtained by Criterion 2 and Criterion 6, at only 0.07. They refer to the subjects of social capital at the company and the business model of the company, respectively.

Finally, the correctness of the results was checked. The inconsistency index λ_{max} (i.e., the average of the matrix's own value) was calculated, which is shown in Table 8. The value of λ_{max} is a measure of the consistency of the comparisons reflecting the proportionality of the preferences. Pairwise comparisons are more consistent the closer λ_{max} is to *n* (the number of elements in the matrix = the number of rows = the number of columns). In the case of total consistency, $\lambda_{max} = n$.

Criteria	Total Rating of Individual Criteria (Columns)	Global Weights Obtained	Partial Values of the Inconsistency Index
Criterion1	3.33	0.28	0.94
Criterion2	14.00	0.07	0.97
Criterion3	3.33	0.28	0.94
Criterion4	8.00	0.17	1.38
Criterion5	10.67	0.13	1.36
Criterion6	14.00	0.07	0.97
			6.55

Table 8. Inconsistenc	y index	λmax	for	criteria.
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Source: own study.

After adding up partial values, λ_{max} was obtained, which was equal to 6.55. That value is similar to 6, the number of criteria tested.

The next step was to calculate the consistency index (CI), which gives the deviation from consistency, and the consistency ratio (CR), which determines the degree of inconsistency of the comparison of the significance of descriptions. These coefficients were calculated by means of the following formulas:

$$CI = \frac{\lambda_{max} - n}{n - 1}$$
$$CR = \frac{CI}{RI} \cdot 100\%$$

The consistency ratio (CR) was determined due to difficulties in the interpretation of the CI. To calculate the CR, the RI (random consistency index) value was determined, which was unchanged. Its value was checked in the book entitled, "Fundamentals of decision making and the priority theory with the Analytic Hierarchy Process," by T.L. Saaty. The value of the RI for the 6×6 matrix was RI = 1.24. The random consistency index was calculated from a randomly generated matrix of $n \times n$. In contrast, RI values were generated from several thousand such matrices and presented by T.L. Saaty in his publication. This means that, for such a matrix dimension, the CR value should not exceed 10% (CR ≤ 0.10). This is due to the fact that the CR is accepted, and the comparisons are consistent. In this case, the CR value is 0.09, so this condition is met. If the comparisons were fully consistent, the value of coefficients would be: $\lambda_{max} = n$, CI = 0 and CR = 0.

7.4. Determination of Local Weights for Sub-Criteria

Local weights for individual sub-criteria were determined in the same way as global weights. Six separate calculation sheets were developed. The matrices with the results of pairwise comparison are shown below in Tables 9–14.

Trust-based Organizational Behavior at the Company	Statement 1.1. At our Company, Trust Shapes Positive Organizational Behavior	Statement 1.2. At our Company, Trust Creates Positive Managerial Intentions	Statement 1.3. At our Company, Employees are Characterized by Honest and Cooperative Behavior based on the Expressed Norms and Values	Statement 1.4. At our Company, there is an Appropriate Climate of Trust which Shapes Positive Organizational Behavior	Statement 1.5. At our Company, Trust has a Special Impact on both Strategic and Tactical-Operational Behavior
Statement 1.1. At our company, trust shapes positive organizational behavior	1.00	0.20	1.00	1.00	1.00
Statement 1.2. At our company, trust creates positive managerial intentions	5.00	1.00	5.00	3.00	5.00
Statement 1.3. At our company, employees are characterized by honest and cooperative behavior based on the expressed norms and values	1.00	0.20	1.00	3.00	3.00
Statement 1.4. At our company, there is an appropriate climate of trust which shapes positive organizational behavior	1.00	0.33	0.33	1.00	3.00
Statement 1.5. At our company, trust has a special impact on both strategic and tactical-operational behavior	1.00	0.20	0.33	0.33	1.00

Table 9. Pairwise comparison matrix for Criterion 1: Trust-based organizational behavior at the company.

Trust-based Social Capital at the Company	Positively Affects the		Statement 2.2. At ourStatement 2.3. At ourCompany, Social CapitalCompany, Trust is a Keyis based on Mutual TrustResource for Buildingbetween StakeholdersSocial Capital		Statement 2.5. At our Company, Trust Allows Us to Express the Same Values, which Shape our Social Capital	
Statement 2.1. At our company, trust positively affects the construction of social capital	1.00	5.00	1.00	3.00	0.33	
Statement 2.2. At our company, social capital is based on mutual trust between stakeholders	0.20	1.00	0.20	0.33	0.33	
Statement 2.3. At our company, trust is a key resource for building social capital	1.00	5.00	1.00	3.00	0.33	
Statement 2.4. At our company, trust positively affects the development of employees' social competences	0.33	3.00	0.33	1.00	0.33	
Statement 2.5. At our company, trust allows us to express the same values, which shape our social capital	3.00	3.00	3.00	3.00	1.00	

Table 10. Pairwise comparison matrix for Criterion 2: Trust-based social capital at the company.

Trust-based Relationships at the Company	Statement 3.1. At our Company, Trust Creates Mutual Relationships.	Statement 3.2. At our Company, Trust Improves Communication between Employees	Statement 3.3. At our Company, Relationships Allow us to Apply the Same Norms of Reciprocity	Statement 3.4. At our Company, there are Continuous Interaction and Trust-based Relationships between Employees	Statement 3.5. At our Company, Trust-based Relationships allow Us to Implement Common Goals
Statement 3.1. At our company, trust creates mutual relationships.	1.00	1.00	3.00	3.00	3.00
Statement 3.2. At our company, trust improves communication between employees	1.00	1.00	0.33	0.20	0.33
Statement 3.3. At our company, relationships allow us to apply the same norms of reciprocity	0.33	3.00	1.00	0.33	0.33
Statement 3.4. At our company, there are continuous interaction and trust-based relationships between employees	0.33	5.00	3.00	1.00	0.33
Statement 3.5. At our company, trust-based relationships allow us to implement common goals	0.33	3.00	3.00	3.00	1.00

Table 11. Pairwise comparison matrix for Criterion 3: Trust-based relationships at the company.

Trust-based Processes and Activities at the Company	Statement 4.1. At our Company, Trust Triggers Positive Activities.	Statement 4.2. At our Company, Trust allows for less Control of Processes and Activities	Statement 4.3. At our Company, Trust Enables more Effective and Efficient Processes and Activities	Statement 4.4. At our Company, Trust Strengthens Mutual Cooperation both at the Level of Processes and Activities	Statement 4.5. At our Company, Mutual Trust Accelerates Decision-Making Processes
Statement 4.1. At our company, trust triggers positive activities.	1.00	3.00	5.00	3.00	5.00
Statement 4.2. At our company, trust allows for less control of processes and activities	0.33	1.00	3.00	0.33	0.33
Statement 4.3. At our company, trust enables more effective and efficient processes and activities.	0.20	0.33	1.00	0.20	0.33
Statement 4.4. At our company, trust strengthens mutual cooperation both at the level of processes and activities	0.33	3.00	5.00	1.00	1.00
Statement 4.5. At our company, mutual trust accelerates decision-making processes	0.20	3.00	3.00	1.00	1.00

Table 12. Pairwise comparison matrix for Criterion 4: Trust-based processes and activities at the company.

Trust-based Risk at the Company	Statement 5.1. At our Company, Trust is a Factor which Limits the Risk of our Activity	Statement 5.2. At our Company, Thanks to Mutual Trust, its Reputation is Improved	Statement 5.3. At our Company, Thanks to Mutual Trust, there are no Behaviors that are Different from those Expected	Statement 5.4. At our Company, Trust Limits Mutual Distrust	Statement 5.5. At our Company, the Risk is Mitigated, Limited by Mutual Trust between Employees
Statement 5.1. At our company, trust is a factor which limits the risk of our activity	1.00	5.00	3.00	3.00	3.00
Statement 5.2. At our company, thanks to mutual trust, its reputation is improved	0.20	1.00	0.33	0.33	3.00
Statement 5.3. At our company, thanks to mutual trust, there are no behaviors that are different from those expected	0.33	3.00	1.00	1.00	3.00
Statement 5.4. At our company, trust limits mutual distrust	0.33	3.00	1.00	1.00	3.00
Statement 5.5. At our company, the risk is mitigated, limited by mutual trust between employees	0.33	0.33	0.33	0.33	1.00

Table 13. Pairwise comparison matrix for Criterion 5: Trust-based risk at the company.

The Trust-based Business Model at the Company	Statement 6.1. At our Company, Trust is a Key Attribute/Component of the Business Model	Statement 6.2. At our Company, Trust Shapes the Business Model.	Statement 6.3. At our Company, Trust Positively Affects other Attributes/Components of the Business Model	Statement 6.4. At our Company, Trust Strengthens other Components of the Business Model	Statement 6.5. At our Company, Thanks to Trust Embedded in the Business Model, We Achieve a High Level of Efficiency and Effectiveness
Statement 6.1. At our company, trust is a key attribute/component of the business model	1.00	1.00	3.00	5.00	3.00
Statement 6.2. At our company, trust shapes the business model.	1.00	1.00	5.00	3.00	3.00
Statement 6.3. At our company, trust positively affects other attributes/components of the business model	0.33	0.20	1.00	1.00	3.00
Statement 6.4. At our company, trust strengthens other components of the business model	0.20	0.33	1.00	1.00	3.00
Statement 6.5. At our company, thanks to trust embedded in the business model, we achieve a high level of efficiency and effectiveness	0.33	0.33	0.33	0.33	1.00

Table 14. Pairwise comparison matrix for Criterion 6: The trust-based business model at the company.

Each of the matrices presented in Tables 9–14 was normalized and matrices were obtained, as shown in Tables 15–20 below. After adding up the data from the rows and dividing them by the number of sub-criteria present (i.e., five statements), the values of local weight were obtained, which were subsequently ranked.

Normalized W-Matrix	Statement 1.1	Statement 1.2	Statement 1.3	Statement 1.4	Statement 1.5	Weights = Local Priorities	RANKING
Statement 1.1	0.11	0.10	0.13	0.12	0.08	0.11	4
Statement 1.2	0.56	0.52	0.65	0.36	0.38	0.49	1
Statement 1.3	0.11	0.10	0.13	0.36	0.23	0.19	2
Statement 1.4	0.11	0.17	0.04	0.12	0.23	0.14	3
Statement 1.5	0.11	0.10	0.04	0.04	0.08	0.07	5
			C	(1			

Table 15. Normalized sub-criterion matrix for Criterion 1.

Source: own study.

Table 16. Norma	lized sub-criterion	matrix for Criterion 2.
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Normalized W-matrix	Statement 2.1	Statement 2.2	Statement 2.3	Statement 2.4	Statement 2.5	Weights = Local Priorities	RANKING
Statement 2.1	0.18	0.29	0.18	0.29	0.14	0.22	2
Statement 2.2	0.04	0.06	0.04	0.03	0.14	0.06	5
Statement 2.3	0.18	0.29	0.18	0.29	0.14	0.22	2
Statement 2.4	0.06	0.18	0.06	0.10	0.14	0.11	4
Statement 2.5	0.54	0.18	0.54	0.29	0.43	0.40	1

Source: own study.

	Table 17. Normalized sub-criterion matrix for Criterion 3.											
Normalized W-Matrix	Statement 3.1	Statement 3.2	Statement 3.3	Statement 3.4	Statement 3.5	Weights = Local Priorities	RANKING					
Statement 3.1	0.33	0.08	0.29	0.40	0.60	0.34	1					
Statement 3.2	0.33	0.08	0.03	0.03	0.07	0.11	4					
Statement 3.3	0.11	0.23	0.10	0.04	0.07	0.11	4					
Statement 3.4	0.11	0.38	0.29	0.13	0.07	0.20	3					
Statement 3.5	0.11	0.23	0.29	0.40	0.20	0.25	2					

Source: own study.

Table 18. Normalized sub-criterion matrix for Criterion 4.

Normalized W-Matrix	Statement 4.1	Statement 4.2			Statement 4.5	Weights = Local Priorities	RANKING
Statement 4.1	0.48	0.29	0.29	0.54	0.65	0.45	1
Statement 4.2	0.16	0.10	0.18	0.06	0.04	0.11	4
Statement 4.3	0.10	0.03	0.06	0.04	0.04	0.05	5
Statement 4.4	0.16	0.29	0.29	0.18	0.13	0.21	2
Statement 4.5	0.10	0.29	0.18	0.18	0.13	0.17	3

Normalized W-Matrix	Statement 5.1	Statement 5.2	Statement 5.3	Statement 5.4	Statement 5.5	Weights = Local Priorities	RANKING	
Statement 5.1	0.45	0.41	0.53	0.53	0.23	0.43	1	
Statement 5.2	0.09	0.08	0.06	0.06	0.23	0.10	4	
Statement 5.3	0.15	0.24	0.18	0.18	0.23	0.20	2	
Statement 5.4	0.15	0.24	0.18	0.18	0.23	0.20	2	
Statement 5.5	0.15	0.03	0.06	0.06	0.08	0.07	5	

Table 19. Normalized sub-criterion matrix for Criterion 5.

Source: own study.

Normalized W-Matrix	Statement 6.1	Statement 6.2	Statement 6.3	Statement 6.4	Statement 6.5	Weights = Local Priorities	RANKING	
Statement 6.1	0.35	0.35	0.29	0.48	0.23	0.34	1	
Statement 6.2	0.35	0.35	0.48	0.29	0.23	0.34	1	
Statement 6.3	0.12	0.07	0.10	0.10	0.23	0.12	3	
Statement 6.4	0.07	0.12	0.10	0.10	0.23	0.12	3	
Statement 6.5	0.12	0.12	0.03	0.03	0.08	0.07	5	

 Table 20. Normalized sub-criterion matrix for Criterion 6.

Source: own study.

After ranking, Statement 1.2, "At our company, trust creates positive managerial intentions," turned out to be the dominant sub-criterion (Table 15), obtaining a local weight of 0.49. Statement 1.3, "At our company, employees are characterized by honest and cooperative behavior based on the expressed norms and values," was ranked second with a local weight of 0.19. Statement 1.5, "At our company, trust has a special impact on both strategic and tactical-operational behavior," was at the bottom of the list with a local weight of only 0.07.

Among the sub-criteria of Criterion 2 (Table 16), Statement 2.5, "At our company, trust allows us to express the same values, which shape our social capital," was ranked highest with a local weight of 0.40. It was followed by Statement 2.3: "At our company, trust is a key resource for building social capital" with a local weight of 0.22. Statement 2.2, "At our company, social capital is based on mutual trust between stakeholders," was ranked fifth, with a local weight of 0.06.

As regards sub-criteria for Criterion 3 (Table 17.), Statement 3.1, "At our company, trust creates mutual relationships," was ranked first, with a local weight of 0.34. Statement 3.5, "At our company, trust-based relationships allow us to implement common goals," was also significant, with a local weight of 0.25. Statement 3.2, "At our company, trust improves communication between employees," and Statement 3.3, "At our company, relationships allow us to apply the same norms of reciprocity," were at the bottom of the ranking, both with a local weight of 0.11.

Among the sub-criteria of Criterion 4 (Table 18), the highest ranked was Statement 4.1: "At our company, trust triggers positive activities," which obtained a local weight at the level of 0.45. Statement 4.4, "At our company, trust strengthens mutual cooperation both at the level of processes and activities," was ranked second, with a local weight more than two times lower at 0.21. Statement 4.3, "At our company, trust enables more effective and efficient processes and activities," was ranked last, with a local weight of only 0.05.

In the case of sub-criteria within Criterion 5 (Table 19), Statement 5.1, "At our company, trust is a factor limiting the risk of our operations," was the most important, with a local weight of 0.43. It was followed by Statement 5.3 and Statement 5.4, which obtained the same local weight value of 0.20. The statements were, respectively: "At our company, thanks to mutual trust, there are no behaviors different from those expected," and "At our company, confidence limits mutual distrust." Statement

5.5, "At our company, the risk is mitigated, limited by mutual trust between employees," was ranked lowest, with a local weight of 0.07.

As a result of the examination of the sub-criteria of Criterion 6 (Table 20), the most important statements turned out to be Statement 6.1 and Statement 6.2, which obtained an identical local weight value of 0.34 ("At our company, trust is a key attribute/component of the business model," and "At our company, trust shapes the business model"). They were followed by Statements 6.3 and 6.4 with weights at the same level of 0.12 ("At our company, trust positively affects other attributes/components of the business model," and "At our company, trust strengthens other components of the business model."). Statement 6.5, "At our company, thanks to trust embedded in the business model, we achieve a high level of efficiency and effectiveness," was at the bottom of the ranking with a local weight of 0.07.

In order to verify the results obtained for the matrix normalized for sub-criteria, the values of the inconsistency index λ_{max} , the consistency ratio CR and the values of the random consistency index RI were calculated. The following results were obtained (Table 21):

Table 21. Values of the inconsistency index, λ_{max} , the consistency ratio, CR, and the values of the random consistency index RI for each criterion.

Criterion	Criterion1	Criterion2	Criterion2 Criterion3		Criterion5	Criterion6		
λ_{max}	5.47	5.48	5.28	5.47	5.42	5.45		
п	5	5	5	5	5	5		
RI	1.12	1.12	1.12	1.12	1.12	1.12		
CR	0.10	0.11	0.06	0.10	0.09	0.10		
		6	. 1					

Source: own study.

The weight values obtained for each criterion and the local weights for sub-criteria are as follows (Table 22).

The total share is the result of multiplying the local weights of sub-criteria by the global weights of the criteria for which they occurred, which gave the global weights of the sub-criteria (Table 22). The assumption was that the above-percentages represented the ideal state, where trust is a key factor in shaping the business social model. Statement 1.2, "At our company, trust creates positive managerial intentions," was the most important sub-criterion among all 30 sub-criteria, achieving a global weight of 0.14. It was followed by Statement 3.1, "At our company, trust creates mutual relationships," with a global weight of 0.10. The statement 4.1, "At our company, trust triggers positive activities," with a global weight of 0.08, was also significant. Important sub-criteria also include Statement 3.5, "At our company, trust-based relationships allow us to implement common goals," with a global weight of 0.07.

1. Trust-Based 2. Trust-Based Socia Organizational Behavior at the Company at the Company		1	3. Trust-Based Relationships at the Company			4. Trust-Based Processes and Activities at the Company		5. Trust-Based Risk at the Company			6. The Trust-Based Business Model at the Company						
0.28	Share in the group	Share in total	0.07	Share in the group	Share in total	0.28	Share in the group	Share in total	0.17	Share in the group	Share in total	0.13	Share in the group	Share in total	0.07	Share in the group	Share in total
Statement 1.1	0.11	0.03	Statement 2.1	0.22	0.02	Statement 3.1	0.34	0.10	Statement 4.1	0.45	0.08	Statement 5.1	0.43	0.05	Statement 6.1	0.34	0.02
Statement 1.2	0.49	0.14	Statement 2.2	0.06	0.004	Statement 3.2	0.11	0.03	Statement 4.2	0.11	0.02	Statement 5.2	0.10	0.01	Statement 6.2	0.34	0.02
Statement 1.3	0.19	0.05	Statement 2.3	0.22	0.02	Statement 3.3	0.11	0.03	Statement 4.3	0.05	0.01	Statement 5.3	0.20	0.02	Statement 6.3	0.12	0.01
Statement 1.4	0.14	0.04	Statement 2.4	0.11	0.01	Statement 3.4	0.20	0.06	Statement 4.4	0.21	0.04	Statement 5.4	0.20	0.02	Statement 6.4	0.12	0.01
Statement 1.5	0.07	0.02	Statement 2.5	0.40	0.03	Statement 3.5	0.25	0.07	Statement 4.5	0.17	0.03	Statement 5.5	0.07	0.01	Statement 6.5	0.07	0.01

Table 22. Matrix of local and global weights for criteria and sub-criteria for the issue of trust as a key factor in shaping the social business model of the company.

7.5. Analysis of Responses from Surveys Sent to Water Supply Companies

Having already defined criteria and sub-criteria, questionnaires in which the respondents had to refer to the statements were constructed and sent to the water supply companies. The scale of reference to given sub-criteria, which allowed respondents to assess consistency with the information on trust in their company, is presented in Table 23 below.

Scale	Statement
1	I strongly disagree
2	I somewhat disagree
3	I have no opinion
4	I somewhat agree
5	I strongly agree

Table 23. The scale used to evaluate the company in terms of sub-criteria.

The sample used to collect the data set for the calculation was comprised of water supply companies. After collecting the data, i.e., ratings from surveys, calculations were made in order to obtain the appropriate global weights calculated for each company. After receiving the result for each criterion from the obtained ratings, considering previously calculated global weights, all results for a given company were added up. This combined result indicated the level of trust in a water supply company. In the case of an ideal company, the result would be 1.0. Maximum values in a given cell for a criterion are values of global weights calculated for six groups of criteria. Finally, the total results obtained were ranked and the ranking of water supply companies was obtained in terms of the level of trust. The following test results are presented in Table 24 below.

Table 24. The final matrix containing the results of the rating of companies in terms of social values together with the ranking.

Company	Criterion1	Criterion2	Criterion3	Criterion4	Criterion5	Criterion6	Total Result
The company with the highest result No. 1	0.28	0.07	0.25	0.17	0.13	0.06	0.96
The company with the highest result No. 2	0.27	0.06	0.27	0.15	0.11	0.07	0.94
The company with the lowest result	0.22	0.06	0.22	0.14	0.10	0.06	0.80

Source: own study.

The ratings within each group of criteria were also averaged (Table 25):

Table 25. The average values of the ratings obtained for each criterion along with the descriptions.

Criteria	Average Value of the Rating	Description Corresponding to the Rating
1. Trust-based organizational behavior at the company	4.4	I somewhat agree
2. Trust-based social capital at the company	4.6	I strongly agree
3. Trust-based relationships at the company	4.4	I somewhat agree
4. Trust-based processes and activities at the company	4.3	I somewhat agree
5. Trust-based risk at the company	4.0	I somewhat agree
6.The trust-based business model at the company	4.1	I somewhat agree

Source: own study.

This means that each criterion had an average rating above 4.0. The highest ranked statement in Criterion 2 was, "Trust-based social capital at the company," which received a rating of 4.6; i.e., "I strongly agree." The statement, "Trust-based risk at the company," in Criterion 5 was rated the lowest; however, here the rating was also high. It is within the range covered by the answer, "I somewhat agree."

The values of ratings obtained for individual statements from all questionnaires collected were averaged, which is presented as follows (Table 26):

	Statements	Average Value of the Rating	Description Corresponding to the Rating
	Statement 1.1. At our company, trust shapes positive organizational behavior	4.7	I strongly agree
	Statement 1.2. At our company, trust creates positive managerial intentions	4.7	I strongly agree
1. Trust-based organizational behavior at the	Statement 1.3. At our company, employees are characterized by honest and cooperative behavior based on the expressed norms and values	4.1	I somewhat agree
company	Statement 1.4. At our company, there is an appropriate climate of trust which shapes positive organizational behavior	4.3	I somewhat agree
	Statement 1.5. At our company, trust has a special impact on both strategic and tactical-operational behavior	4.3	I somewhat agree
2. Trust-based social capital at the company	Statement 2.1. At our company, trust positively affects the construction of social capital.	4.8	I strongly agree
	Statement 2.2. At our company, social capital is based on mutual trust between stakeholders.	4.7	I strongly agree
	Statement 2.3. At our company, trust is a key resource for building social capital.	4.7	I strongly agree
	Statement 2.4. At our company, trust positively affects the development of employees' social competences	4.5	I strongly agree
	Statement 2.5. At our company, trust allows us to express the same values, which shape our social capital.	4.5	I strongly agree
	Statement 3.1. At our company, trust creates mutual relationships.	4.8	I strongly agree
	Statement 3.2. At our company, trust improves communication between employees	4.6	I strongly agree
3. Trust-based relationships at	Statement 3.3. At our company, relationships allow us to apply the same norms of reciprocity	4.4	I somewhat agree
the company	Statement 3.4. At our company, there are continuous interaction and trust-based relationships between employees	4.0	I somewhat agree
	Statement 3.5. At our company, trust-based relationships allow us to implement common goals	4.3	I somewhat agree

Table 26. Average values of the declared ratings for each statement with the corresponding description.

	Statements	Average Value of the Rating	Description Corresponding to the Rating
	Statement 4.1. At our company, trust triggers positive activities.	4.7	I strongly agree
	Statement 4.2. At our company, trust allows for less control of processes and activities.	3.8	I somewhat agree
4. Trust-based processes and	Statement 4.3. At our company, trust enables more effective and efficient processes and activities.	4.2	I somewhat agree
activities at the company	Statement 4.4. At our company, trust strengthens mutual cooperation both at the level of processes and activities.	4.4	I somewhat agree
	Statement 4.5. At our company, mutual trust accelerates decision-making processes	4.5	I strongly agree
1. Trust-based risk at the company	Statement 5.1. At our company, trust is a factor which limits the risk of our activity.	4.0	I somewhat agree
	Statement 5.2. At our company, thanks to mutual trust, its reputation is improved.	4.7	I strongly agree
	Statement 5.3. At our company, thanks to mutual trust, there are no behaviors that are different from those expected.	3.7	I somewhat agree
	Statement 5.4. At our company, trust limits mutual distrust.	3.8	I somewhat agree
	Statement 5.5. At our company, the risk is mitigated, limited by mutual trust between employees.	3.9	I somewhat agree
	Statement 6.1. At our company, trust is a key attribute/component of the business model	3.7	I somewhat agree
	Statement 6.2. At our company, trust shapes the business model	3.5	I somewhat agree
6. The trust-based business model at	Statement 6.3. At our company, trust positively affects other attributes/components of the business model	4.4	I somewhat agree
the company	Statement 6.4. At our company, trust strengthens other components of the business model	4.4	I somewhat agree
	Statement 6.5. At our company, thanks to trust embedded in the business model, we achieve a high level of efficiency and effectiveness	4.3	I somewhat agree

Table 26. Cont.

Source: own study based on surveys conducted.

The above answers show that 18 statements were answered by the statement "I somewhat agree," and 12 statements received a response of "I strongly agree." In summary of the ratings of individual statements: they were below 4.0, but not lower than 3.5. The lowest-ranked statements were as follows (Table 27):

Table 27.	Average	values	of	declared	ratings	for	each	statement	with	the	corresponding
description-	–lowest va	alues.									

Criterion	Statement					
6. The trust-based business model at the company	Statement 6.2. At our company, trust shapes the business model.	3.5				
5. Trust-based risk at the company	Statement 5.3. At our company, thanks to mutual trust, there are no behaviors that are different from those expected.	3.7				
6. The trust-based business model at the company	Statement 6.1. At our company, trust is a key attribute/component of the business model.	3.7				
4. Trust-based processes and activities at the company	Statement 4.2. At our company, trust allows for less control of processes and activities.	3.8				
5. Trust-based risk at the company	Statement 5.4. At our company, trust limits mutual distrust	3.8				
5. Trust-based risk at the company	Statement 5 5. At our company, the risk is mitigated, limited by mutual trust between employees	3.9				

Source: own study based on surveys conducted.

The highest-ranked statements were as follows (Table 28):

Table 28.	Average	values	of	declared	ratings	for	each	statement	with	the	corresponding
description-	–highest v	values.									

Criterion	Statement	Rating
2. Trust-based social capital at the company	Statement 2.1. At our company, trust positively affects the construction of social capital.	4.8
3. Trust-based relationships at the company	Statement 3.1. At our company, trust creates mutual relationships.	4.8
1. Trust-based organizational behavior at the company	Statement 1.1. At our company, trust shapes positive organizational behavior	4.7
1. Trust-based organizational behavior at the company	Statement 1.2. At our company, trust creates positive managerial intentions	4.7
2. Trust-based social capital at the company	Statement 2.2. At our company, social capital is based on mutual trust between stakeholders	4.7
2. Trust-based social capital at the company	Statement 2.3. At our company, trust is a key resource for building social capital	4.7
4. Trust-based processes and activities at the company	Statement 4.1. At our company, trust triggers positive activities.	4.7
5. Trust-based risk at the company	Statement 5.2. At our company, thanks to mutual trust, its reputation is improved	4.7

Source: own study based on surveys conducted.

Due to the lack of significant deviations in the results obtained, it can be stated that the research conducted is a reliable sample which allowed for the obtainment of an image of the hierarchy of basic factors in building a trust-based water supply company.

The homogeneity of the scale was verified as well, thanks to Cronbach's alpha, a coefficient which says to what extent a set of variables is consistent. It takes values from [0; 1]. If all positions were perfectly reliable and measured the same thing, the coefficient $\alpha = 1$. In the case of $\alpha > 0.7$, the high reliability of the scale is demonstrated. Cronbach's alpha was estimated from the following formula:

$$\alpha = \frac{K}{K-1} \left(1 - \frac{\sum_{i=1}^{K} \sigma_{Statement_{i}}^{2}}{\sigma_{set}^{2}} \right)$$

where:

K—number of statements;

Statement_i—responses obtained for individual statements given by all companies;

 $\sigma_{\text{Statement}}^2$ —variance for the responses that were obtained for a given statement *i*;

 σ_{set}^2 —variance from the sum of responses to all statements for individual companies.

Thus, the value of Cronbach's alpha was 0.85. The higher the value of the coefficient, the greater the reliability of the scale; therefore, the reliability of this study was very high. This means that there was a significant degree of similarity between individual responses, and the way in which individual responses were given was similar. Therefore, the statements examine a similar phenomenon, that is, the share of trust factors in water supply companies.

8. Discussion

When summarizing the research conducted, it should be noted that the aim of the analysis was the issue of trust as a key factor in shaping the social business model of the company. As part of the research, companies were asked to answer several questions related to the relationship between trust and the social business model of water supply companies. They included the following thematic areas:

- Trust-based organizational behavior at the company;
- Trust-based social capital at the company;
- Trust-based relationships at the company;
- Trust-based processes and activities at the company;
- Trust-based risk at the company;
- The trust-based business model at the company.

The research shows that an important element in using trust to build the social business models of water supply companies is organizational behaviors supported by social capital. In this approach, trust is mainly treated as a strategic resource for building social capital, and consequently, the social business model. When conducting a scientific discussion, it is worth paying attention to the complexity of this issue in the context of the results achieved by water supply companies. The hybrid nature of water supply companies indicates that it is necessary to constructively compare hard and soft factors that have an impact on building their social business models. Research findings confirm this interpretation of the discussion. In addition, it is important to properly configure these components for the consistency and scalability of the social business model. When analyzing scientific considerations synthetically, it is important to present the final interpretation of the results, which confirm the answers to the research questions posed. Based on the research results, key final conclusions can be formulated:

- 1. It can be assumed that trust itself is one of the important components of the business model, but other components have a strong impact in some cases (the result of the rating of the place and role of trust as a key component of the business model attribute is 3.7).
- 2. Due to the fact that it can be combined with other components, it expresses, among others, logical consistency with the social conditions of doing business (the result of the rating of trust as a factor that builds the social capital of an organization is 4.8).
- 3. In this context, trust supports the development of the organization's social capital and mutual business relationships (the result of the rating of trust as a factor which builds mutual relationships is 4.8).
- 4. Trust also supports the building of the organization's reputation and reduces its business risk (the result of the rating of trust as a factor which limits business risk is 3.9).
- 5. Trust also positively affects the activities of members of the organization and strongly affects the activity based on mutual cooperation (the result of the rating of trust as a factor which strongly affects activity is 3.8).

Such an analysis shows that trust is important in constructing the business model, but it cannot be separated from other components of the business model, between which cause-and-effect relationships occur. Thus, it is clear that the configuration approach of a business model along with its interfaces can be a platform for building trust-based social business models. The defined configuration of the business model, where trust is a model navigator, can work when building social business models. At the same time, it is worth adding that from this perspective, the consistency and scalability of this business model are important. Consistency ensures the appropriate use of individual components, thus creating a synergistic effect towards generating the maximum value of the business model. Moreover, scalability determines the use of this approach to create social and economic value.

To sum up, it is worth referring to the possible contribution of the article to the discipline of management sciences. The article pays special attention to embedding trust and its context in the construction and application of social business models. So far, trust has not been strongly emphasized as a component or attribute of a business model, especially from the configuration perspective. The place and role of trust in the social business model as a factor which determines the high performance of the organization, based on the case study of water supply companies, is also important. Trust then becomes an important element of the business model, which is also particularly important for ensuring business continuity while fulfilling economic and social requirements at the same time. Thus, by writing this article, the authors wished to add value to the identification, conceptualization, operationalization and implementation of trust-based social business models. In the relevant literature, the issues proposed are quite modest in such an approach. The value of creative input is related to the presentation of a comprehensive view of trust as a component of the social business model that ensures the high performance of water supply companies. The authors would like to draw attention to the need to build a new approach and a broader understanding of trust in the theory of business models, and to present utilitarian solutions that may act as a guide for managers interested in improving the performance of water supply companies.

9. Conclusions

It can be assumed that the purpose of the article was achieved, because the study provided an answer to the question of which factors, divided into different categories, are important in building a trust-based water supply company. Due to the lack of significant deviations in the results obtained, it can be stated that the research conducted is a reliable sample which allowed for the obtainment of an image of the hierarchy of basic factors in building a trust-based water supply company.

In light of the above discussion, the authors formulated the following research conclusions:

- 1. By undertaking a comparative analysis according to individual factors, it was found that in the ranking of given criteria along with global weights, Criterion1: Trust-based organizational behaviors at the company and Criterion3: Trust-based relationships at the company, received the strongest weight. This means that trust is strongly related to organizational behaviors and relationships.
- 2. It can be assumed that the trust-based social business model should be supported by proper organizational behavior and efficient and effective relationships with water supply company stakeholders.
- 3. As regards the normalized sub-criterion matrix for Criterion 1, Statement 1.2, "At our company, trust creates positive managerial intentions," is the most important.
- 4. As regards the normalized sub-criterion matrix for Criterion 1, Statement 2.5, "At our company, trust allows us to express the same values, which shape our social capital," is the most important.
- 5. As regards the normalized sub-criterion matrix for Criterion 3, Statement 3.1, "At our company, trust creates mutual relationships," is the most important.
- 6. As regards the normalized sub-criterion matrix for Criterion 4, Statement 4.1, "At our company, trust triggers positive activities," is the most important.

- 7. As regards the normalized sub-criterion matrix for Criterion 5, Statement 5.1, "At our company, trust is a factor which limits the risk of our activity," is the most important.
- 8. As regards the normalized sub-criterion matrix for Criterion 6, Statement 6.1, "At our company, trust is a key attribute/component of the business model," and Statement 6.2, "At our company, trust shapes the business model," are the most important.

When making inferences about points 1–8, strategic recommendations for building a trust-based social business model can be formulated. It can be built in such a way since research results confirm that trust shapes the business model and is a key attribute/component thereof. At the same time, the social business model should be based on appropriate organizational behaviors and appropriate relationships. Building positive managerial intentions and expressing the same values based on social capital is also important in building a social business model. At the same time, trust is a factor which limits the risk of a water supply company's operation. In terms of application, such a structure allows for practical applications in the context of the conceptualization and operationalization of the social business models of water supply companies.

The authors present general conclusions which summarize the issue of building and applying the trust-based social business models of water supply companies.

- 1. The social business model is a key ontological entity for the achievement of high performance by water supply companies.
- 2. The social business model of water supply companies should be built in such a way that trust is its key attribute.
- 3. The social business model of water supply companies should be conceptualized and operationalized by means of various approaches related to the hybrid nature of this type of organization.
- 4. The social business model of water supply companies should be supported by proper relationships with stakeholders and their appropriate organizational behavior.
- 5. The social business model of water supply companies should be strongly supported by the positive intentions of their managers.
- 6. The social business model of water supply companies should direct the management stream towards the expression of the same values that shape their social capital.
- 7. The social business model of water supply companies should use trust as a factor which limits the risk of running the business.

From this perspective, it can be assumed that trust is the focal point of the social business model of a water supply company, where the business model itself is a kind of configuration of its strategic components. The relationship between trust and other components of the business model is of particular importance for decision-making processes aimed at meeting social and economic needs with a hybrid character. At the same time, trust becomes a platform for dialogue with various stakeholders of a water supply company in both the product and organizational spheres. In addition, the relational nature of trust also affects the construction of the water company's strategy. On the one hand, trust also reduces the business risk of a water supply company, and on the other hand, it enables the exchange of values generated by the organization. Moreover, if one refers to the principles of assessing the impact of a water company business model on society, it seems logical that the impact itself could be measured by trust-building mechanisms between the company's stakeholders. The adopted logic of the conducted scientific argument indicates that trust and its place and role in the social business model of a water supply company have a significant impact on the social and economic performances of the water supply company, and as a consequence, on increased social responsibility towards stakeholders as well. Trust even stabilizes the organization and its business model; it is also a value catalyst and neutralizes the potentially negative impacts of the organization on other entities gathered around it. Trust as a stabilizer can also affect the consistency and scalability of the social business model of a water supply

company. When analyzing the conclusions, it should also be noted that there is potential in these management areas for the further development of water supply companies. Water supply companies should intensify their efforts to improve the place and role of trust as an important component of their social business models. They should set strategic goals in this area and pursue them consistently. They should treat trust on the one hand as an attribute of the business model, and on the other hand as a key factor of their success as well, especially in terms of relationships with various stakeholders.

To sum up, in the face of changes regarding both the logic of the functioning of companies and the very construction of business models, trust may become, to some extent, a platform that neutralizes the possible oppositional behavior of the supporters of the theory of creating economic value, compared to the supporters of creating only social value. This specific balance of organizational goals and behavior is extremely necessary and advisable. Trust is a kind of neutralizer of potential mutual conflicts between the stakeholders of water supply companies, who may have different needs and expectations of the organization. Finally, trust becomes a strong link in the priority business model. It is as a social component of the business model that relationships and interfaces are created in the very structure of the business model. Therefore, it can be said that trust in the social business model is a strategic, hard component, which strongly affects other components. This strategic character is reflected in its strong impact on the high performance of water supply companies.

10. Limitations and Suggestions for Future Research

The authors are fully aware of the limitations resulting from the research. They result, among others, from the fact that the research was conducted in one region, albeit a very large one, as opposed to throughout the country. In addition, it is worth noting that a limitation may be the question of how different recipients understand both the concept of trust, which has been demonstrated in the critical review of the literature, and difficulties in interpretation related to the concept of social business models. As regards suggestions for future research, the authors hope that this research will open the way to further discussion on the place and role of trust in shaping the social business models of water supply companies. It is also important to understand and study the hybrid image of water supply companies, which is not an easy and unambiguously interpreted issue, as this hybridism strongly emphasizes the social character of these organizations.

Author Contributions: Conceptualization, A.J. and M.J.; methodology, M.J.; formal analysis, A.J.; investigation, A.J. and M.J.; data curation, A.J. and M.J.; writing—original draft preparation, M.J.; writing—review and editing, A.J.; visualization, A.J. and M.J.

Funding: This research received no external funding.

Conflicts of Interest: The authors declare no conflict of interest.

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