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Benefits Achieved by Energy Suppliers through Cooperation with Individual Recipients and Their Readiness for This Cooperation

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Abstract: The aim of this article is to identify the benefits perceived by individual recipients that are achieved by consumer energy suppliers on the market, through multilateral trade cooperation, and to define the structure of these benefits according to the declared readiness of recipients to cooperate with the suppliers. The results of the analysis of the available literature on the subject indicate that there is a cognitive and research gap in relation to the perceived benefits achieved by the suppliers through joint marketing activities. The benefits are not being analyzed; especially from the perspective of individual recipients' readiness for this cooperation. This gap is noticeable not only in relation to the energy market, but also in other areas of the consumer market. In an effort to reduce the identified gap, an online survey was conducted among 1196 adult individual energy recipients in Poland. The primary data collected was subjected to quantitative analysis using the following research methods: average grade analysis, comparative analysis, and exploratory factor analysis. The Kruskal–Wallis test was also conducted. The results of the quantitative analysis indicate, inter alia, that the majority of the respondents declared their readiness to cooperate with energy suppliers on the preparation of marketing offers. This variable statistically significantly differentiated nine out of twelve analyzed benefits that, according to the respondents, suppliers obtain as a result of cooperation. This differentiation was not found only in the case of three benefits related to the cost-free acquisition of recipient potential. For all respondents, as well as for the respondents willing to cooperate with suppliers and for those who did not express such willingness, three sections were identified, including the respondents who saw the same benefits achieved by suppliers. The conclusions drawn on the basis of the analysis results constitute a significant contribution to the theory of marketing and the theory of market behavior of individual recipients in the energy market. They also bear clear application advantages, making it easier for energy suppliers to effectively initiate cooperation with individual recipients and/or strengthen this cooperation.

Keywords: supplier; individual recipient; energy market; readiness for cooperation; perceived benefits

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1. Introduction

Various relationships take place between the participants of the contemporary consumer market. Ties based on cooperation are becoming increasingly important. This applies especially to individual recipients and the suppliers who see the need to replace a closed attitude with an open attitude [1]. The division of their market roles, which was characteristic of the classic approach to the functioning of the market, has been replaced by the interpenetration of the roles played by both groups of entities. Each group, to a greater or lesser extent, plays the role of a recipient and a supplier, which is part of the paradigm of value co-creation [2]. The implementation of this approach brings a number of material and non-material benefits to the recipients and suppliers cooperating with each other [3]. In their subjective assessment, these benefits significantly outweigh those achieved in the traditional approach.

Clearly, cooperation requires the creation of appropriate conditions, including market education of both the recipients and suppliers, and especially their mutual trust [4]. They both have to replace their traditional, often protective attitude, with openness to participating in a new relational system. At the same time, it is necessary to significantly increase the involvement of each participant in such a system, and their level of activity must be high enough to overcome psychological, physical and geographical barriers that make it difficult to initiate and maintain joint activities. The scope and value of the benefits that can be obtained from these outlays, however, justifies the expenses.

Moreover, it is essential that suppliers apply a marketing approach to individual recipients from the very beginning of the cooperative process. This means that it is necessary to recognize the recipients' expectations regarding 1/their readiness to undertake joint actions and 2/the benefits resulting from joint actions. This is especially important in the case of products that determine the efficient functioning of virtually every area of human activity, which includes energy. Effective cooperation while creating the components of marketing offers, in the case of energy, is of particular importance in the era of energy transformation [5], leading to radical changes in the energy market [6].

As the analysis of the literature shows, the results of which are presented in the following section of the article, the benefits perceived by individual recipients through cooperation with their suppliers, have not yet been studied through the prism of readiness of recipients to such cooperation. In fact, these issues have not been considered in relation to energy recipients and suppliers. Thus, one can speak of a cognitive and research gap here, taking into account the recipients' declared willingness to cooperate.

Therefore, the aim of this article concerns the research problem of what, in the opinion of individual recipients, the benefits are that energy suppliers obtain through cooperation with them, taking into account the declared readiness to cooperate? Secondly, the structure of these benefits according to the declared readiness of recipients to cooperate with suppliers can be determined.

The article was structured to achieve these goals and verify four research hypotheses, which were formulated on the basis of the results of the research literature analysis. The article includes the introduction, literature review, characteristics of the primary research conducted and its results, an academic discussion, and the conclusions, implications, limitations, and directions of future research.

2. Literature Review

The cooperation between various entities participating in the modern market is one of the pillars of its functioning. This applies both to the market of industrial goods and services and the market of consumer goods and services. In the case of the consumer market, which is the subject of the considerations presented in this article, the cooperation between suppliers and individual recipients plays a particularly important role.

In the literature, the term 'cooperation' is used both in general and specific meanings. In the first case, it is a category used interchangeably with such categories as 'value co-shaping' and 'value co-creation' [7,8]. For example, Grönroos [9] defines joint value creation as joint actions of the recipients and suppliers within direct interactions. Therefore, he draws attention to the necessity of entering into personal contact as one of the key elements of cooperation. Although the author applies this definition to services, it can of course also be applied to any other product group. The following two categories are usually mentioned as the main synonyms of the generally understood cooperation [10]: collaboration and joint action. Nevertheless, some researchers do not treat joint action as a synonym of cooperation, considering it as a narrower concept corresponding to one of the forms of cooperation, next to co-fun and co-learning [11]. However, this is a rather rare, even isolated approach. In its detailed meaning, depending on what specific activities it concerns, cooperation is referred to as co-designing, co-production, and co-launching [12,13], etc.

Considering the lack of clarity in defining and interpreting the concept discussed, this article treats cooperation and collaboration synonyms, understood as activities undertaken

jointly with someone else, contributing to the achievement of the goals assumed by both parties. This article focuses on the cooperation between individual recipients and suppliers, analyzing it in its general meaning and in relation to the energy market. In the considerations presented, a supplier is a term referring to entities offering products on the consumer market, and thus to individual recipients, and is used as a collective term covering three groups of entities, i.e., producers, retailers, and service providers.

Cooperation between individual recipients and suppliers is a category that fits in the paradigm of value co-creation, which is a kind of a model of conduct [14], directing the market behavior of both groups of entities. This paradigm points to the need to completely redefine the way of thinking and acting [15] that characterizes the traditional approach to their market roles. Enterprises must involve stakeholders, including recipients, in all activities, especially marketing, as drivers of these activities. As Kotler, Kartajaya and Setiawan [16] rightly emphasize, this is a prerequisite for achieving benefits otherwise impossible to gain by enterprises that adhere to the traditional division of market roles, determining the achievement of a clear competitive advantage. Some authors even write about the consequent possibility of obtaining a durable competitive advantage [17,18], which seems to be, however, too far-reaching a conclusion. Considering the extremely high dynamism in the micro and macro environments of contemporary enterprises, it is hard to speak of durability in relation to any market function category.

Creative cooperation between suppliers and other entities, including individual recipients, is even referred to as 'the new normal' for the age of networked intelligence [19], which has replaced the information age. Tapsott and Ticoll stress that this was possible thanks to the development of the Internet, which gave access not only to information in the possession of other people, but also opened the door to their wisdom. It is worth adding that using this access requires people to be open to sharing the wisdom gained from their own experiences, thanks to which they can influence not only their acquaintances, but, in principle, all users of the Internet [18].

Clearly, the benefits achieved through joint marketing activities are mutual [20]. It would be difficult to imagine replacing the closed attitude that characterizes the suppliers and recipients in the traditionally functioning market with an open attitude, if there were no positive stimuli for both to do so. Undoubtedly, one such stimulus concerns achieving benefits that the classic division of market roles does not provide. Moreover, the value attributed to the expected benefits exceeds, in the subjective opinion of the suppliers and recipients, the value of the expenditures of engaging in cooperation. It should be noted that the expected benefits are not necessarily synonymous with the benefits actually obtained. The former may be effective in encouraging joint action, but will not help to maintain commitment if the recipient or the supplier does not benefit in practice. Only the feeling of obtaining real benefits can be considered a stimulus that effectively sustains or even enhances the level of commitment, enabling a long-term relationship between the active individual recipient and the active supplier.

Cooperation, therefore, requires from both suppliers and individual recipients a much greater level of activity than that of the classical market approach. Moreover, it can be assumed that the more active the cooperating entities are, the more benefits each of them achieves. This principle additionally stimulates the entities to play the role of active market participants, i.e., prosumers (in the case of individual recipients) [21,22] and the suppliers they cooperate with. As a result of this, they meet their very diverse material and non-material expectations. Undertaking joint actions not only allows meeting a much wider range of expectations, but also meeting each expectation much more fully than would be possible without cooperation.

The basic benefits achieved by individual recipients that are mentioned in the literature include, among others, a sense of satisfaction [23], the possibility of obtaining a product that better meets purchaser needs [24], the possibility of establishing relationships with other entities [25], the possibility of sharing one's knowledge, experience, skills, abilities, etc. [26], the possibility of influencing something or someone [27], a sense of shared responsibility

for the environment and the phenomena taking place in it [28], the possibility of testing oneself, the feeling of meeting new challenges and the feeling of pride in coping with a new role [29], the possibility of embarking on an adventure and gaining new experience [30], the possibility of gaining new knowledge and skills [31], the possibility of impressing others or being recognizable [32], the feeling of being appreciated by other entities [31], and the possibility of obtaining financial gratification [33] and a material reward [34].

As can be seen, the spectrum of benefits achieved by active individual recipients is quite large indeed. At the same time, the benefits are so diverse that they enrich virtually all spheres of human life, increasing the market potential of a person in the role of not only a prosumer, but also an employee, a family member, and a member of their local community. The existence of the so-called spiral of benefits is extremely important. The greater the benefits an active purchaser expects, the more likely they are to join in activities with the suppliers. If the actual benefits obtained correspond to the benefits expected, and even more so, if they exceed them, the greater is the recipient's involvement, leading to greater benefits for the supplier, etc.

No less diverse are the benefits achieved by suppliers, although some researchers associate these primarily with increasing the value of a product co-created by the supplier and the recipient [12]. The benefits obtained by suppliers also include the possibility of creating a product that better meets the expectations of recipients, or even 'tailored' to the measure of a specific person [35], the perceived subjective value of which is significantly greater than of a product created without the participation of recipients [36], creating a better image of a supplier by instilling trust [37], building better relationships with recipients [32], earning loyalty from recipients [38], acquiring the potential from recipients [12], including their knowledge and experience [39,40], and limiting the costs incurred [3,41], etc. All the above-mentioned positive consequences of cooperation lead to the higher profitability of suppliers [7].

As can be seen, these are benefits, some of which coincide with the benefits achieved by the recipients, and some are different from them. Each benefit, however, contributes to the enrichment of the marketing potential of recipients and suppliers, leading to the creation of a common potential which distinguishes the community they create, linked by common aspirations and values. Building such a community is the highest rung in the ladder of emotional loyalty [42], which is difficult to build, but it practically ensures market success. It is an exceptional and unique, and therefore impossible to imitate, feature of the market. Therefore, one can talk about three sets of benefits, i.e., those achieved by suppliers, those achieved by individual recipients, and those achieved jointly. These sets determine each other, and the possibility of long-term development is determined primarily by the achievement of common benefits. Thus, although the role of benefits is crucial, there are still relatively few researchers paying attention to them, as was also rightly noted by Xie, Wu, Xiao and Hu [8].

It is worth emphasizing that in the literature on the subject, the benefits achieved by suppliers through cooperating with individual recipients are analyzed, among others, from the perspective of the aspects of communicating via social media [43], innovation [44], the need to properly manage activities undertaken as part of value co-creation [45,46], and the improvement of marketing activities [47].

With regard to the energy market, cooperation between market entities is most often considered in the context of renewable energy sources. The research presented in the literature can be divided into the following two main groups: 1/the research on generating energy for one's own needs and 2/the research on sharing and selling, and/or buying energy generated by other recipients. For example, changes in the role played by individual recipients from the role of energy users to the role of energy producers due to the development of new technologies are novel and noteworthy. As a rule, however, it is about cooperation with other individual recipients as part of the so-called inter-purchase prosumption, i.e., collective co-creation of energy with the use of renewable sources. This is a development opportunity for a given community, e.g., living in rural areas [48], although

this solution is not without certain risks. In a more detailed approach, the differences in the behavior of active recipients are also analyzed depending on the specificity of renewable energy sources (i.e., solar, wind, and bioenergy installations) [49] and depending on the methods of communicating the benefits achieved by individual recipients generating solar energy for their own needs [50]. The latter of the above-mentioned trends includes the research conducted by Junlakarn, Kokchang and Audomvongseree [51] on the trade in green energy between recipients via an Internet platform and the research carried out by Drabecki and Toczyłowski [52] relating to the interest of active recipients in optimizing not only the financial costs of energy, but also social and environmental costs, etc. The research is also carried out in relation to the opportunities created by the cooperation between individual energy recipients in the event of sudden, unpredictable and global phenomena, such as the COVID-19 pandemic. Moreover, researchers highlight the need of improving the digital competence of recipients on a general social scale, emphasizing that this may contribute to an increase in interest in prosumer cooperation [53]. However, changes are also noticed, including unfavorable ones, resulting from the pandemic, for example in the behavior of individual energy recipients, which requires the improvement of solutions as part of their cooperation [54].

Direct cooperation between suppliers and recipients on the energy market, despite being listed by Grönroos [9] as a key feature of joint value creation, is researched much less frequently or even sporadically.

Therefore, it can be concluded that not only in relation to the energy market, but also in relation to other areas of the market, the readiness of individual recipients to cooperate is not being examined, nor are the perceived benefits achieved by suppliers in the approach proposed in this article. This is synonymous with the existence of a cognitive and research gap in this area.

It is worth adding that this article adopts the perspective of individual recipients not only because this approach has not been researched before from this author's perspective, but also because this angle is the foundation of any marketing approach. The recipients' expectations and their realization is key, which includes the stage of the preparation of joint marketing activities and their implementation. Only then can the recipients be assured of a sense of partnership, not only declaratively but in fact, as co-creators of a marketing offers leading to market success. So far, only a few attempts have been made to research the willingness of recipients to cooperate with suppliers. For example, Chatterjee, Rana and Dwivedi [12] examined the impact of intentions to co-create value with suppliers on their business benefits. However, the readiness to cooperate as a feature differentiating the benefits perceived by recipients that are achieved by suppliers, especially those operating on the energy market, has not been examined.

Taking into account the previous considerations, and in order to reduce the cognitive and research gap identified, this article aims to identify the benefits perceived by individual consumers which are achieved by suppliers on the consumer energy market thanks to cooperation with them, and to define the structure of these benefits according to the declared readiness of recipients to cooperate with suppliers. The following research hypotheses apply here:

H1. *The willingness to cooperate with energy suppliers declared by individual recipients is a statistically significant feature that differentiates the benefits achieved by suppliers, consisting of creating a product that better meets the expectations of the recipients, as perceived by the recipients;*

H2. *The willingness to cooperate with energy suppliers declared by individual recipients is a statistically significant feature that differentiates the benefits achieved by suppliers, consisting of creating non-product elements of a marketing offer that better meets the expectations of the recipients, as perceived by the recipients;*

H3. *The willingness to cooperate with energy suppliers declared by individual recipients is a statistically significant feature that differentiates the benefits achieved by suppliers, consisting of acquiring the marketing potential of individual recipients, as perceived by the recipients;*

H4. *The willingness to cooperate with energy suppliers declared by individual recipients is a statistically significant feature that differentiates the benefits achieved by suppliers, consisting of building more lasting relationships with individual recipients, as perceived by the recipients.*

3. Method

In order to achieve the goal of this article and to verify the four research hypotheses formulated, empirical research was conducted using the method of an internet survey to collect primary data. To this end, the CAWI technique was used. The research was carried out in mid-2020 among 1196 adult representatives of individual recipients in Poland. The geographic scope of the research was nationwide. The research was characteristic of a panel. A quota sampling was used. The socio-demographic characteristics (sex, age, education, and region) were dispersed proportional to the distribution of the trait in the general population, with a deviation of no more than 10 respondents in relation to the proportion for the distribution of the entire Polish population.

The object scope of the article covered two variables: 1/the willingness to cooperate with energy suppliers declared by individual recipients and 2/the benefits perceived by individual recipients that energy suppliers achieve thanks to this cooperation. The respondents were asked to define their readiness for joint actions by answering a general dichotomous question. This made it possible to divide the respondents into two groups and to compare the opinions of the representatives of each group with the opinions of the total of respondents. During the research, the respondents were also presented with a set of twelve benefits achieved by suppliers thanks to cooperation with individual recipients. These were distinguished based on the results of a cognitive-critical analysis of the literature on the subject (inter alia Dellaert [32]; Chatterjee, Rana and Dwivedi [12]) and the results of unstructured interviews, which had been conducted prior to the survey.

Each benefit was to be rated by the respondents using an Odd Likert Scale, which is one of the most frequently used psychometric tools in social sciences [55]. A 5-step variant was used (5 meant definitely yes, 4—rather yes, 3—neither yes nor no, 2—rather no, and 1—definitely no). The use of this scale is a necessary condition to apply the average score analysis and exploratory factor analysis.

The primary data collected was subjected to quantitative analysis using the following methods: average score analysis, comparative analysis, exploratory factor analysis, and the Kruskal–Wallis test.

Exploratory factor analysis was used to reduce the number of variables constituting the primary data obtained from the survey and to detect structures in the relationships between these variables, i.e., to classify them [56]. Therefore, this analysis was used to reduce the number of variables influencing the researched category, i.e., the benefits that, according to the respondents, suppliers achieve thanks to cooperation with individual recipients, and to detect internal correlations in the relationships between these variables. The method of principal components was used to distinguish the factors, and it was important to determine their number. In order to determine the number of common factors (the so-called main components), the Kaiser Criterion technique was used, which consists of leaving only factors with eigenvalues greater than 1. Each factor explains a certain level of general variability of the analyzed system, defined with a percentage of variance, which can be interpreted as a measure of explaining the occurrence. The factors were rotated by the oblimin method. Within the individual factors, the variables with the highest factor loadings in relation to a given factor were distinguished (the assumed value was $\geq$0.7).

In factor analysis, hidden factors are identified, which include features responsible for the perception of the problem described by the question. However, factor analysis does not allow finding the answer as to whether the differentiation in terms of the separation of individual groups is statistically significant enough to say that the opinion of the respondents determined by the analyzed answer is significantly different. This question is answered by the Kruskal–Wallis (KW) test. The KW test is a nonparametric equivalent of ANOVA. Its results make it possible to find the answer to whether the differentiation in

terms of the separation of individual groups (e.g., according to the declared willingness to cooperate with suppliers) is statistically significant enough to say that the respondents' opinions defined by the analyzed answers are significantly different. From the point of view of statistical criteria, in the case of the KW test, the data do not have to meet many requirements. The only requirements for its implementation are [57]:

- the dependent variable should be measured on at least an ordinal scale (it can also be measured on a quantitative scale),
- the observations in the analyzed groups should be independent of each other, which means that a person belonging to one group should not belong to another group being compared at the same time (this requirement is met by dichotomous questions allowing for the division of the respondents into two separate groups and single-choice questions).

The statistical analysis of primary data was performed using the IBM SPSS Statistics Ver. 25.

4. Research Results

Most respondents, i.e., almost three-fourths (Table 1), expressed their willingness to participate in the preparation of marketing offers of enterprises operating on the consumer energy market. As the analysis of the literature on the subject shows, the results of which were presented in the previous part of the article, undertaking joint action benefits both parties. Considering the aim of this article, it is important to identify and analyze the benefits which, in the opinion of the respondents, energy suppliers obtain thanks to the participation of individual recipients in the preparation of marketing offers.

Table 1. Declared willingness of respondent to cooperate with energy suppliers in the creation of marketing offers.

Willingness to Cooperate	Indications (%)
Yes	71.7
No	28.3

Source: own study based on research results.

As shown in Table 2, all the analyzed benefits obtained average scores with a value exceeding 4.00 (on a scale from 1 to 5). In the case of six benefits, the value was greater than 4.50; in the case of four benefits, the value ranged from 4.20 to 4.49, and for the remaining two benefits, the value was less than 4.20. For each of the benefits, the value of the standard deviation did not exceed one-third of the average score. It follows that the values of average scores provide a reliable basis for the hierarchical ranking of the benefits [58]. The first position was taken by the benefit of the "possibility of creating a product that better meets recipients' expectations". This was the only benefit for which the average score was greater than 4.70. In turn, the benefits that took the last two positions were the possibility of cost-free acquiring recipients' ideas (11th position) and skills (12th position). As can be seen, the respondents did not equate the benefits achieved by energy suppliers with the financial effects in the form of reducing the costs incurred, but, above all, with the possibility of better matching the offer to the expectations of the recipients, better communication with the recipients, and the recipients' better perception of a supplier co-creating an offer with them.

In order to identify the internal structure of the studied aspect and to compare the structure of indications of the total of respondents concerning the benefits achieved by suppliers with the structure of indications resulting from the willingness to cooperate with suppliers or the lack thereof, an exploratory factor analysis was carried out for each of the three groups of respondents. The Cronbach's alpha test value for the total of respondents was 0.885; for the respondents declaring their willingness to cooperate with energy suppliers, the value was 0.826, and for the respondents not showing their readiness

to cooperate it was 0.815. These values, therefore, exceeded the value of 0.8, which proves high reliability [59].

Table 2. Benefits that, according to respondents, energy suppliers achieve thanks to cooperation with individual recipients.

Benefits Indicated by Respondents	Indications (%)					Average Score	Standard Variation	Position
	5	4	3	2	1			
Possibility of creating a product that better meets recipients' expectations	79.2	19.1	1.1	0.4	0.2	4.767559	0.495487	1
Possibility of creating a promotional campaign that more effectively convinces recipients	66.3	28.8	3.7	0.8	0.5	4.596154	0.648101	2
Possibility of designing a logo that is better associated by recipients	53.8	32.9	9.4	2.8	1.0	4.358696	0.839964	8
Possibility of building a better image	65.1	29.1	4.5	1.0	0.3	4.578595	0.651751	3
Possibility of creating charity activities that are better perceived by recipients	46.0	35.7	14.0	3.3	1.1	4.222408	0.882579	10
Possibility of more fully meeting recipients' needs	62.0	32.0	4.7	1.3	0.0	4.548495	0.645673	5
Possibility of cost-free acquiring recipients' knowledge	50.1	33.4	12.4	3.3	0.9	4.284281	0.870408	9
Possibility of cost-free acquiring recipients' skills	43.1	34.1	15.8	6.0	1.0	4.122074	0.951624	12
Possibility of cost-free using recipients' ingenuity	46.4	33.4	14.5	4.2	1.4	4.192308	0.931894	11
Possibility of building good relationships with recipients	63.6	29.0	6.1	1.3	0.0	4.550167	0.667218	4
Possibility of building real loyalty from recipients	54.8	33.9	8.7	2.4	0.2	4.408027	0.762556	7
Possibility of standing out on the market among other companies	62.1	29.7	6.0	1.8	0.3	4.514214	0.721898	6

Where: 5—definitely yes; 4—rather yes; 3—neither yes nor no; 2—rather no; 1—definitely no.
Source: own study based on research results.

On the basis of the Kaiser criterion, for each of the three groups of respondents, three factors were distinguished with eigenvalues greater than 1. In each case, they explain over 65% of the total variability of the system examined (Table 3). For each group of respondents, the first and the second factors included three or two variables for which the value of the factor loadings was at least 0.7 (Table 4). The variables were identical for the total of respondents and for the respondents who wanted to cooperate with suppliers, and different from the variables forming the first and the second factors in the case of the respondents who were not ready to cooperate. However, the third factor included three variables identical for each of the analyzed groups of respondents. It is worth noting that the benefit of "the possibility of creating a product that better meets recipients' expectations", which took the first position in the hierarchy identified, did not enter any factor for any group of respondents.

Table 3. Hierarchy of factors according to their eigenvalues determined on the basis of the Keiser criterion (according to the respondents' declared willingness to cooperate with energy suppliers in the creation of marketing offers).

Factor	Eigenvalue			Cumulated Eigenvalue			% of Total Eigenvalues (Variation)			Cumulated % of Eigenvalues		
	Tot. *	Yes #	No ^	Tot.	Yes	No	Tot.	Yes	No	Tot.	Yes	No
1	3.200	3.047	3.211	3.200	3.047	3.211	24.615	23.441	24.696	24.615	23.441	24.696
2	2.844	2.796	3.031	6.044	5.843	6.242	21.879	21.510	23.315	46.494	44.951	48.011
3	2.662	2.703	2.629	9.244	8.546	8.871	20.475	20.789	20.225	66.969	65.740	68.236

* Kaiser–Meyer–Olkin (KMO) sampling adequacy measure is 0.886, which is greater than 0.7 [60]; Bartlett's sphericity test is significant (the variables are statistically significantly related to each other); chi2 is 8356.026; and $p = 0.000$; # KMO = 0.873; Bartlett's sphericity test is significant; chi2 is 5808.993; and $p = 0.000$; ^ KMO = 0.886; Bartlett's sphericity test is significant; chi2 is 2458.135; and $p = 0.000$; Tot.—the total of respondents; 'Yes'—respondents declaring willingness to cooperate; 'No'—respondents declaring unwillingness to cooperate; Source: own study based on research results.

Table 4. Factor analysis for benefits that, according to respondents, energy suppliers achieve, according to the respondents' declared willingness to cooperate.

Variable Analyzed	Factor								
	1			2			3		
	Tot.	Yes	No	Tot.	Yes	No	Tot.	Yes	No
Possibility of building real loyalty from recipients	**0.817**	**0.778**	0.154	0.118	0.125	**0.844**	0.203	0.222	0.200
Possibility of building good relationships with recipients	**0.759**	**0.710**	0.151	0.177	0.227	**0.820**	0.253	0.288	0.191
Possibility of standing out on the market among other companies	**0.726**	**0.703**	0.367	0.212	0.141	**0.706**	0.186	0.236	0.123
Possibility of more fully meeting recipients' needs	0.654	0.696	0.509	0.331	0.249	0.511	0.139	0.114	0.193
Possibility of creating a product that better meets recipients' expectations	0.541	0.543	0.541	0.379	0.322	0.449	0.009	0.017	-0.017
Possibility of creating charity activities that are better perceived by recipients	0.456	0.408	0.264	0.359	0.411	0.564	0.227	0.255	0.166
Possibility of designing a logo that is better associated by recipients	0.166	0.124	**0.809**	**0.830**	**0.840**	0.190	0.146	0.139	0.177
Possibility of creating a promotional campaign that more effectively convinces recipients	0.302	0.326	**0.774**	**0.746**	**0.728**	0.184	0.075	0.044	0.139
Possibility of building a better image	0.471	0.465	0.630	0.597	0.592	0.405	0.164	0.161	0.193
Possibility of cost-free acquiring recipients' skills	0.196	0.215	0.167	0.130	0.118	0.157	**0.911**	**0.913**	**0.903**
Possibility of cost-free using recipients' ingenuity	0.185	0.174	0.166	0.114	0.102	0.222	**0.889**	**0.893**	**0.866**
Possibility of cost-free acquiring recipients' knowledge	0.215	0.234	0.182	0.124	0.105	0.174	**0.875**	**0.869**	**0.880**

Tot.—the total of respondents; 'Yes'—respondents declaring willingness to cooperate; 'No'—respondents declaring unwillingness to cooperate; Bold and underlined fonts indicate variables for which the value of the factor loadings was at least 0.7.
Source: own study based on research results.

The factors can be identified with segments of respondents whose representatives showed similar attitudes and/or behaviors within a specific segment, yet different ones compared to the representatives of other segments [61,62]. As results from Table 5 show, for the total of respondents and for the respondents declaring their willingness to join in the preparation of marketing offers with suppliers, the identified segments included people expressing the same opinions on the benefits achieved by suppliers about their cooperation. Therefore, we can talk about a segment of respondents mentioning benefits relating to the following issues: relational and image (segment 1), communication (segment 2), and marketing potential (segment 3). Conversely, for the respondents who were reluctant to cooperate with suppliers, the segments included people who shared the same views on the benefits achieved by suppliers, and the main segment included the respondents who paid attention to communication benefits. This illustrates the basic difference between the respondents who were not ready to cooperate and the other two groups of respondents, being the reverse order of the first and second segment. It is also worth noting that all the identified groups were characterized by internal homogeneity and coherence, which proved their correct separation.

Table 5. Segments of respondents identified based on the benefits they perceive as achieved by energy suppliers thanks to cooperation with individual recipients according to respondents' declared willingness to cooperate.

Willingness to Cooperate	Segment		
	1	2	3
Total	- Possibility of building real loyalty from recipients - Possibility of building good relationships with recipients - Possibility of standing out on the market among other companies	- Possibility of designing a logo that is better associated by recipients - Possibility of creating a promotional campaign that more effectively convinces recipients	- Possibility of cost-free acquiring recipients' skills - Possibility of cost-free using recipients' ingenuity - Possibility of cost-free acquiring recipients' knowledge
Yes	- Possibility of building real loyalty from recipients - Possibility of building good relationships with recipients - Possibility of standing out on the market among other companies	- Possibility of designing a logo that is better associated by recipients - Possibility of creating a promotional campaign that more effectively convinces recipients	- Possibility of cost-free acquiring recipients' skills - Possibility of cost-free using recipients' ingenuity - Possibility of cost-free acquiring recipients' knowledge
No	- Possibility of designing a logo that is better associated by recipients - Possibility of creating a promotional campaign that more effectively convinces recipients	- Possibility of building real loyalty from recipients - Possibility of building good relationships with recipients - Possibility of standing out on the market among other companies	- Possibility of cost-free acquiring recipients' skills - Possibility of cost-free using recipients' ingenuity - Possibility of cost-free acquiring recipients' knowledge

Source: own study based on research results.

At this point, a question may be asked as to whether the declared willingness to cooperate with energy suppliers is a significant feature when it comes to the perception of benefits achieved by suppliers from cooperation with individual recipients. The next stage of the analysis was to find an answer to this issue. For this purpose, the Kruskal–Wallis test was performed. As shown in Table 6, the declared willingness to jointly prepare marketing offers was a feature that statistically significantly differentiated the responses referring to nine out of twelve benefits, leaving out the three variables where the suppliers acquire the potential of the recipients in the form of their knowledge, skills and creativity. These were the benefits which 1/took the farthest positions in the hierarchy (the use of recipients'

creativity and the use of recipients' skills were ranked 11th and 12th, respectively—see Table 2), 2/were mentioned by the respondents forming the third segment among the total of respondents and among both segments of respondents selected according to their willingness to cooperate with suppliers. Therefore, it can be said that in the case of the respondents, hypotheses H1, H2 and H4 were valid, while the thesis presented as the H3 hypothesis turned out to be false.

Table 6. Results of analysis of the significance of differences between respondents' opinions on the benefits achieved, in the opinion of the respondents, by energy suppliers thanks to cooperation with individual recipients, according to the declared willingness to cooperate.

Variable Analyzed	Willingness to Cooperate	Average Rank	The KW Test Value	Level of Significance 'p'
Possibility of creating a product that better meets recipients' expectations	yes	619.57	22.758	**0.000**
	no	545.01		
Possibility of creating a promotional campaign that more effectively convinces recipients	yes	628.23	32.857	**0.000**
	no	523.03		
Possibility of designing a logo that is better associated by recipients	yes	615.15	8.735	**0.003**
	no	556.24		
Possibility of building a better image	yes	629.88	35.844	**0.000**
	no	518.85		
Possibility of creating charity activities that are better perceived by recipients	yes	615.58	8.691	**0.003**
	no	555.14		
Possibility of more fully meeting recipients' needs	yes	628.18	30.789	**0.000**
	no	523.15		
Possibility of cost-free acquiring recipients' knowledge	yes	601.70	0.312	0.576
	no	590.37		
Possibility of cost-free acquiring recipients' skills	yes	599.52	0.030	0.862
	no	595.91		
Possibility of cost-free using recipients' ingenuity	yes	599.45	0.026	0.871
	no	596.10		
Possibility of building good relationships with recipients	yes	620.62	17.352	**0.000**
	no	542.34		
Possibility of building real loyalty from recipients	yes	628.20	28.215	**0.000**
	no	523.11		
Possibility of standing out on the market among other companies	yes	624.46	23.372	**0.000**
	no	532.60		

Bold and underlined fonts indicate variables for which 'p' is lower than 0.05.
Source: own study based on research results.

5. Discussion

The results of the research show that over 70% of the respondents declared their readiness to cooperate with suppliers in the energy market in the process of creating marketing offers. These are consistent with the results of other studies (inter alia, Baruk [63]), which also confirm the readiness of the majority of the respondents to act as co-creators of products and/or other elements of a marketing offer. The willingness of recipients to cooperate had been, however, studied in a different context. For example, Auh, Bell, Mcleod and Shih [3] analyzed this category in relation to the recipients' market experiences with

financial services. In turn, Dong, Sivakumar, Evans and Zou [64] considered cooperation as a factor conducive to actual joining in activities.

According to the research conducted, "the possibility of creating a product that better meets recipients' expectations" took the first position among the benefits, which, according to the respondents, energy suppliers obtain thanks to cooperation with individual recipients. The first difference that can be noticed between this study and studies of other researchers is a different perspective. The studies of other authors do not attempt to identify the benefits achieved by suppliers from the perspective of recipients, although such studies are conducted among suppliers. This fact alone causes different results of particular studies. Secondly, the benefits which, according to the recipients, are achieved by energy suppliers are not being explored. For example, Roos and Stoffers [65], and Roser et al. [66] stressed the effect of gaining a competitive advantage by developing knowledge resources as part of a company's cooperation with entities from its market environment. The fact that these authors paid attention to knowledge can, to some extent, be related to the benefit mentioned herein about "the possibility of cost-free acquiring recipients' knowledge". However, this variable took one of the last positions in the hierarchy identified. In turn, Kleber and Volkova [67] mentioned profit, i.e., a material effect, as a key benefit achieved by suppliers. As can be seen, these studies focused on benefits of a more general nature. Of course, each benefit researched in this article leads or may lead to an increase in profit and in competitive advantage, and is of a more detailed nature.

Among other benefits achieved by suppliers, there is an advantage of better meeting the needs of recipients [68], which is related to "the possibility of creating a product that better meets recipients' expectations" in this study. However, this variable refers to one of the forms of meeting the needs, therefore it is more detailed. In turn, Ind et al. [69] mentioned the generation of innovative products as a key benefit achieved by suppliers, whereas Marinkovic and Obradovic [36] wrote about creating products with greater perceived value in the subjective opinion of recipients. Both benefits mentioned above could also be applied to the mentioned variable. It is true that not every product that better meets the expectations of recipients is an innovative product, but practically every such product is given greater value in the eyes of recipients [70] leading the enterprise to much better market performance [71]. Finally, none of the aforementioned studies refer to the energy market.

6. Conclusions

Based on the research conducted, it can be concluded that the majority of respondents expressed their willingness to participate in co-creating a marketing offer jointly with suppliers operating on the consumer energy market. Among the twelve benefits, which, according to the respondents, energy suppliers achieve thanks to cooperation with individual recipients, the first positions in the identified hierarchy were taken by "the possibility of creating a product that better meets recipients' expectations", "the possibility of creating a promotional campaign that more effectively convinces recipients", and "the possibility of building a better image". In relative terms, the least noticeable from the respondents' point of view were the benefits relating to the cost-free acquisition of the marketing potential by suppliers, which ranked last in this hierarchy, alongside the benefits relating to charity activities better suited to the recipients.

The segmentation of the respondents based on their declared readiness to cooperate and the perceived benefits achieved by suppliers indicate that the same segments can be distinguished among the group of respondents expressing their willingness to cooperate and among the total of respondents. For both groups, the most important segment included the respondents who saw mostly relational and image-related benefits. Only among the respondents who did not show a willingness to undertake joint activities, the key segment included the group of people who believed that such cooperation yields benefits of the non-product elements of an offer. The declared readiness to join in activities with suppliers turned out to be a statistically significant feature that differentiated nine out of twelve

researched benefits. This differentiation was not found for only three variables reflecting the benefits of suppliers' obtaining recipient potential without incurring costs for this purpose.

It must be emphasized that the approach presented in this manuscript is quite new. The benefits perceived by individual recipients through cooperating with their suppliers, have not been studied so far especially in relation to the energy market. Thus, these aspects have not been analyzed in the context proposed here, i.e., in the context of recipient readiness to prosumeric cooperation with suppliers. Therefore, the scope of the studies demonstrate their novelty in filling the cognitive and research gap identified on the basis of the results of the world literature analysis including the literature on the energy market.

7. Implications, Limitations of the Research, and Directions for Future Studies

The research results and conclusions presented in this article bear cognitive value. They make an important contribution to the theory of marketing and to the theory of market behavior relating to the joint creation of value by individual recipients and suppliers. They fill the gap identified during the analysis of the literature on the subject, especially publications on the energy market. The research conducted led, among others, to identify 1/the readiness to cooperate with energy suppliers declared by the recipients in the process of creating marketing offers, 2/the hierarchy of benefits perceived by recipients, which are achieved by energy suppliers thanks to cooperation with individual recipients, 3/segments including individual recipients who show similar attitudes towards cooperation with energy suppliers and see the same benefits achieved by suppliers thanks to cooperation with recipients, and 4/the importance of individual recipients' readiness to cooperate with energy suppliers as a feature that potentially differentiates recipients' opinions on the benefits achieved by suppliers.

The research results and conclusions also have great application value. Respecting them in the process of making business decisions may certainly make it easier for companies offering energy on the consumer market to initiate and properly shape cooperation with individual recipients. They can also strengthen the readiness of recipients to cooperate (in the case of the respondents who are willing to take up this activity), as well as stimulate and consolidate proactive attitudes and behaviors (in the case of the respondents who do not express willingness to cooperate with suppliers). Moreover, the managerial implications also include the use of knowledge of the recipients' opinions on the benefits achieved by suppliers to design and implement effective activation measures - for example, in relation to the segment of the recipients declaring their willingness to cooperate with suppliers and perceiving primarily the benefits of relational aspects, a community that jointly creates unique market values. On the other hand, such activities should also address those respondents who are not willing to cooperate, when preparing campaigns inspiring them to be active, since they may still become co-creators of non-product elements of the offer, such as the logo and activities promoting this offer.

Of course, the studies presented in this article have some limitations. These mainly result from the research approach adopted. These limitations apply, inter alia, to the subject, the object, and the geographical scope. The research covered only representatives of individual recipients in Poland, taking no account of their demographic and economic characteristics, etc. The efforts to eliminate these limitations will guide the studies undertaken by the author in the future. Therefore, research is being planned on cooperation between individual recipients and energy suppliers, taking into account, inter alia, a broader subject scope, including previous experiences of the recipients as active co-creators of value both in the energy market, and in other product markets. In order to compare the analyzed aspects related to the cooperation between energy product suppliers and their individual recipients, the research will also be conducted in different countries. Mutual cooperation represents one of the main directions of development of the consumer market, which also applies to the energy product market in Poland as well as in other countries.

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