



Article **Prosumers' Needs Satisfied Due to Cooperation with Offerors in the Context of Attitudes toward Such Cooperation**

Agnieszka Izabela Baruk 匝



Citation: Baruk, A.I. Prosumers' Needs Satisfied Due to Cooperation with Offerors in the Context of Attitudes toward Such Cooperation. *Energies* 2021, *14*, 7821. https:// doi.org/10.3390/en14227821

Academic Editor: Dimitrios A. Georgakellos

Received: 26 October 2021 Accepted: 19 November 2021 Published: 22 November 2021

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Abstract: The purpose of this article is to determine final purchasers' needs satisfied due to cooperation with offerors and the dependencies between these needs and previous behaviors and attitudes toward this cooperation. The results of the world literature analysis indicate a cognitive and research gap regarding the aspects mentioned. In order to reduce the gap, empirical studies were conducted, in which an online questionnaire was used to gather primary data. The research was implemented in the second half of 2020 among 1150 respondents representing Polish adult final purchasers. The data were subjected to quantitative analysis using statistical analysis and statistical testing, including exploratory factor analysis, cluster analysis, Pearson chi-square independence test, V-Cramer contingency coefficient analysis, and Kruskal-Wallis test. The results of the statistical analysis made it possible to verify six research hypotheses. Dependencies were found between needs satisfied due to cooperation with offerors and the following aspects: (1) purchasers' previous participation in cooperation with offerors, (2) purchasers' willingness to cooperate with offerors, and (3) the assessment of contemporary purchasers' readiness to cooperate with offerors. Willingness to cooperate with offerors differentiated all eleven needs satisfied due to cooperation with offerors analyzed in this study. Two other variables differentiated only a few of the needs analyzed. The results obtained from the research have a cognitive and applicability value. They contribute to theory of marketing and market behavior. They can also facilitate establishing and strengthening cooperation between offerors and final purchasers as important partners cooperating in the process of creating a marketing offer. This effect is very important in the case of shaping the cooperation between final purchasers and offerors of different products including energy ones. The originality of the approach proposed is evidenced by the fact it is the first time final purchasers' needs that can be satisfied due to cooperation with offerors have been analyzed in the context of attitudes and behavior reflecting purchasers' (1) previous participation in this cooperation, (2) willingness to cooperate with offerors, and (3) the assessment of contemporary final purchasers' readiness to cooperate with offerors.

Keywords: final purchaser; prosumer; offeror; needs; cooperation; attitudes; behaviors; co-creation

1. Introduction

In terms of the engagement and level of activity of final purchasers and offerors, the contemporary consumer market is characterized by a much greater symmetry compared with the past. Offerors used to be a more active party, whereas purchasers limited their activity mainly to buying products prepared by offerors without the participation of purchasers. This situation was reflected in a clear division in the scope of activities undertaken by purchasers and offerors and, thus, a clear division of market roles fulfilled by both parties.

The growing level of market awareness of final purchasers [1], resulting, among other things, from changes in society, including the development of information technologies, has changed this situation. Performing the role of passive recipients in line with the traditional paradigm of market functioning [2] ceased to be sufficient for purchasers, who began to

show an open attitude toward participating in the creation of marketing offers together with offerors and even more often taking specific actions consisting of active participation in this process. Purchasers noticed that co-creating marketing offers allowed them not only to create products that better meet their growing requirements but also meet many other needs, especially those of a higher order.

Thus, it can be said that, today, meeting the assumptions of marketing orientation by offerors not only requires them to offer products in line with the expectations of purchasers but also presents them with much greater challenges including the necessity to protect the natural environment [3], implementing innovative social media marketing solutions [4], etc. What serves to meet the expectations of contemporary purchasers is the creation of conditions for them to play the role of active purchasers and even co-creators [5] of products and non-product elements of marketing offers. Frequently, the participation in these activities itself is valuable enough for purchasers to make them want to get involved [6]. Therefore, it is important to identify the needs met through the participation of purchasers in jointly creating offers with offerors and to analyze these needs in different contexts.

However, the results of the cognitive–critical analysis of world literature on the subject presented in the next part of this article indicate that, until now, these needs have not been considered in the context of purchasers' attitudes and behaviors, reflecting their previous experience as active participants in marketing activities and readiness for such activity. This conclusion also applies to publications on energy market. Therefore, in this study, an attempt was made to solve the following research problem: what needs of final purchasers are met through cooperation with offerors, and what are the dependencies between these needs and purchasers' previous attitudes and behaviors related to such cooperation?

The aim of this article is to identify final purchasers' needs satisfied through cooperation with offerors, the dependencies between these needs and previous behaviors in this area, and attitudes toward such activity. The article is structured to achieve this aim. In the second, theoretical part of this article, the results of the analysis of world literature on the subject are presented, which allow research hypotheses to be formed. The third and fourth parts present the methodology of primary research and the results, respectively. Next, an academic discussion is conducted, comparing the results obtained with the results of other authors' research, and the most important conclusions, theoretical and practical implications, and limitations of the research conducted, as well as directions for future research, are presented.

2. Literature Review

In the literature on the subject, apart from the notion of 'cooperation with offerors', many other terms are used, which some authors consider to be synonyms of cooperation, whereas other researchers claim that they cannot be used interchangeably [5]. These include concepts such as co-design, co-creation (inter alia Hansen [7]), co-production (inter alia Chatterjee, Rana, and Dwivedi [8]), co-working with consumers (inter alia France, Grace, Merrilees, and Miller [9]), etc. Each of them has one common feature, which is the active involvement [10] of the final purchasers in creating marketing values.

In this article, cooperation between final purchasers and offerors is defined as the joint creation of various elements of a marketing offer, mainly products, although obviously it may also apply to its non-product elements. Therefore, it fits into the approach presented by Prahalad and Ramaswamy [11], in whose opinion 'value co-creation' is a process of joint creation of values by various entities traditionally representing suppliers and customers. The final purchaser is defined in this article as a person purchasing a product. This term is intentionally used instead of the term 'consumer'. It is true that the literature usually uses this term in situations regarding the joint creation of values, and possibly the synonym 'customer' is used. However, the consumer is a person using a product, and the customer has a much broader meaning than the consumer or purchaser. This article uses it in terms of the cooperation of people buying products with offerors and having their needs met

through this interaction. In turn, the offeror is a term referring to entities offering products on the consumer market, including producers, retailers, and service providers.

The cooperation between final purchasers and offerors reflects the growing level of activity of final purchasers who are looking for new ways to meet their growing expectations [12], not only toward products available on the consumer market but also toward the market role they play. The role of passive participants in this market, limiting their activity to purchasing the products offered, ceases to be enough for an increasing number of purchasers. Many purchasers would like to have a much greater impact on other market participants and the functioning of the market, including features of a marketing offer [13]. Therefore, they are increasingly playing the role of active market actors [14], involved in marketing activities previously undertaken by the offerors themselves or at least showing readiness for such activity.

Thus, the previously clear boundaries between the areas of offerors' activity and the area of purchasers' activity are blurred. Of course, purchasers cannot entirely take over the tasks performed by producers or traders, which result from independent technological, technical, and organizational limitations, etc. Purchasers cannot, therefore, fully replace offerors, but they can increasingly participate in marketing activities related to their preparation, which results, among other things, from dynamic development of communication technologies [15], including social media [16,17]. Purchasers as active participants in the modern consumer market, possessing valuable marketing potential [18], become prosumers, i.e., co-creators of products and other elements of a marketing offer through joining in creating their concept [19], design [20], modification, etc. However, it is difficult to agree with an approach presented by some researchers (among others, Tian, Shen, and Chen [21]) who believe that being a prosumer is about making products for one's own needs, since, in this case, no interaction takes place with any offeror whatsoever.

The cooperation between final purchasers and offerors brings various benefits to both parties [15,22]. The benefits can have a material and non-material dimension, and they are practically always much greater than benefits obtained in the case of the traditional division of market roles, when no cooperation takes place. The benefits that offerors achieve can be divided into economic, social, and image-related categories [23]. The benefits that active purchasers achieve through cooperation with offerors include obtaining products that better meet the expectations of recipients, which is often noted in the literature (inter alia Cheung and To [24]; Yi and Gong [25]). Better fulfillment of needs due to jointly prepared products is not the only positive effect of mutual cooperation. It even seems to not be the most important one, and thus it does not fulfill the role of the main motivator encouraging purchasers to engage in joint activities. Joining in the activities allows many other needs to be met, especially of a social nature [26,27] and psychological nature [28,29] and those related to purchasers' self-fulfillment through expanding and deepening their existing relational [30,31], social, emotional, and intellectual potential, and even their hedonistic needs [14], which are still mentioned mainly in relation to typical shopping behavior [32]. Of course, an active purchaser can achieve the possibility of costs reduction, which is emphasized in the case of energy market (for example by Koltsaklis, Panapakidis, Pozo, and Christoforidis [33]; Faia, Pinto, Vale, and Corchado [34]), but this material benefit is not considered to be the major stimulus of prosumeric activity in the comparison to the non-material benefits.

Thus, final purchasers become disposers of greater marketing potential, becoming at the same time more valuable partners for offerors [35] by sharing their experience [36], knowledge [19,37,38], etc. The resources made available by purchasers cannot be used without their integration with the offeror's resources [39]. The effect of the integration of the purchaser's resources with the offeror's corresponding resources is the creation of new experiences, new knowledge, etc., which leads to increasing the offeror's marketing potential. Therefore, cooperation becomes increasingly valuable in itself, both for active purchasers [5] and offerors. The effects of such cooperation, which include the creation of a

community centered around a given offeror caring for the community's interests [14], are also increasingly valuable for both parties, as they are identified with common interests.

However, for cooperation between offerors and final purchasers to take place, there must be adequate conditions for its initiation. Both parties must be ready for it, showing an open attitude to cooperation [18] and thus to a re-definition of market roles traditionally assigned to each of them. In the case of an offeror, an open attitude must have both organizational and individual dimensions so as not to evoke professional stress among employees [40], which is mentioned in the literature as the main negative consequence of incorporating purchasers into cooperation. In the case of purchasers, openness to engaging in joint activities is certainly fostered by their previous market activity, especially positive experience acquired in relations with offerors, for example, on the occasion of typical shopping or communication activity, which is the first important step toward creative activity, forming prosumer activity [41,42]. One of the key incentives encouraging such activity is, of course, the assumption that it will meet many needs that could not be met if the scope of activity had been limited to shopping behavior only.

It should not be forgotten that the appearance of any dysfunctions in the interaction between purchasers and offerors can have negative effects. The consequence of this situation is not only failure to meet purchasers' needs but even worsening their feelings about their market role [43], which, in turn, can be a difficult barrier to overcome, preventing future cooperation [44]. Unfortunately, there is still relatively little research in the literature on the negative effects of cooperation. However, the possibility that negative effects will occur proves that the creation by offerors of the right conditions for the occurrence and strengthening of cooperation is a key factor determining the scope and nature of the effects of cooperation with final purchasers.

Until now, the world literature on the subject has considered cooperation between final purchasers and offerors in a variety of contexts, for example, by analyzing its scope [41], environment (especially virtual [30,45] and offline [41]), purchasers' competence to be prosumers [46], etc. Research has also been undertaken into the motives for purchasers to engage in joint activities with other entities, including other purchasers [47–49] and offerors [19,50]. Focus has been placed on the need for effective management of such cooperation, including purchasers' expectations of the cooperation [13]. Although playing the role of prosumers by final purchasers on energy market has been studied in recent years, researchers are not concerned with the issues of prosumer's needs satisfied due to cooperation with offerors in the context proposed in this article. For example, prosumer as an active participant of energy market is analyzed in the terms of technological solutions implemented and economic assessment [51]; legal framework of prosumption in countries of the UE [52]; democratizing access to the energy markets [53]; etc. This is a completely different approach than that proposed in this article by the author.

However, needs satisfied due to cooperation in the context of the previous creative behavior of final purchasers and their willingness to cooperate with offerors have not been studied. Therefore, one can speak of a cognitive and research gap in this respect, and filling the gap is important from the point of view of the theory and practice of marketing and market behavior. In order to fill the identified gap, an attempt is made in this article to achieve the goal of identifying final purchasers' needs satisfied through cooperation with offerors, dependencies between those needs and final purchasers' previous behavior in this respect, and their attitudes toward such activity.

In order to meet this goal, the following research hypotheses were checked:

Hypothesis 1 (H1). There is dependence between respondents' previous active participation in cooperation with offerors and final purchasers' needs satisfied due to such cooperation.

Hypothesis 2 (H2). There is dependence between respondents' willingness to actively participate in cooperation with offerors and final purchasers' needs satisfied due to such cooperation.

Hypothesis 3 (H3). There is dependence between respondents' assessment of contemporary purchasers' willingness to actively cooperate with offerors and final purchasers' needs satisfied due to such cooperation.

Hypothesis 4 (H4). *Respondents' previous active participation in cooperation with offerors is a feature differentiating final purchasers' needs satisfied due to such cooperation.*

Hypothesis 5 (H5). *Respondents' willingness to actively participate in cooperation with offerors is a feature differentiating final purchasers' needs satisfied due to such cooperation.*

Hypothesis 6 (H6). Respondents' assessment of contemporary final purchasers' willingness to actively cooperate with offerors is a feature differentiating purchasers' needs satisfied due to such cooperation.

3. Research Methodology

To achieve the research goal and verify the hypotheses, empirical research was conducted by means of the online survey method to collect primary data using the CAWI (Computer Assisted Web Interview) technique. The research was implemented in the second half of 2020 among 1150 representative of Polish adult final purchasers. The research had a nationwide geographical coverage and was of panel format. The sample was a representative quota of all Poles in terms of gender. Other sociodemographic features (age, education, and region) were maintained in a dispersion proportional to the distribution of a given feature in the general population, with a deviation of no more than ten respondents against the proportion for the distribution of the entire Polish population (based on Statistics Poland (in Polish—GUS) data and CAPI (Computer Assigned Personal Interview) population studies).

The subject scope of this article includes four variables: (1) final purchasers' needs satisfied due to cooperation with offerors, (2) final purchasers' previous participation in cooperation with offerors, (3) final purchasers' willingness to cooperate with offerors, and (4) the assessment of final purchasers' readiness to cooperate with offerors.

During the research, respondents were presented with a set of eleven needs that can be satisfied due to cooperation with offerors. The needs were separated on the basis of the results of cognitive–critical analysis of the literature. The list of needs that can be satisfied by final purchasers due to cooperation with offerors was based on a classification of values generated through 'value co-creation' proposed by Kuo and Feng [54]. In this article, the values were divided into the following four groups: cognitive (knowledge, information, etc.), social (relationships with other entities, etc.), self-assessment (status, reputation improvement, etc.), and hedonistic (satisfaction with interaction with other people, etc.). This list was supplemented with needs pre-identified based on the results of unstructured interviews preceding the survey.

Each of the eleven needs had to be ranked by respondents on a 5-grade Likert scale, which belongs to the most fundamental and most commonly used psychometric tools in the social sciences [55]. In this article, a five-level version was applied, where 5 indicated definitely yes, 4—rather yes, 3—neither yes nor no, 2—rather not, and 1—definitely not. Applying the Likert scale is a prerequisite for the application of average grade analysis and exploratory factor analysis.

The primary data collected were subjected to quantitative analysis, which included the following methods: average grade analysis, comparative analysis, exploratory factor analysis, cluster analysis, Pearson chi-square independence test, V-Cramer contingency coefficient analysis, and Kruskal–Wallis test.

Exploratory factor analysis is used to reduce the number of variables constituting primary data obtained from the survey and to detect structures in relationships between those variables to classify them [56]. In this article, this analysis was used to reduce the number of variables influencing the category of 'needs satisfied due to cooperation with offerors' and to detect internal dependencies between those variables. To extract

the factors, a principal component method was used, and it was essential to determine the number of the components. To determine the number of common factors (the main components), the Kaiser Criterion was applied to leave only those factors with eigenvalues greater than 1. Each factor explains a certain level of overall variability of the system under consideration, determined by a percentage of variance that can be interpreted as a measure of explanation of the problem. The factors were rotated using the oblimin method. Within individual factors, the variables with the highest factorial loadings against given factors were distinguished (value ≥ 0.7 was assumed).

Factor analysis identifies hidden factors with features responsible for the perception of a problem included in a question. However, factor analysis does not facilitate the answer to whether the diversity in terms of separating individual groups (e.g., according to previous participation in cooperation with offerors, willingness to cooperate with offerors, and the assessment of final purchasers' readiness for cooperation with offerors) is statistically significant enough to state that the respondents' answers determined by the analyzed response are significantly different. The Kruskal–Wallis (KW) test, which is a non-parametric equivalent of ANOVA, is used to answer this question. Therefore, the KW test was used in this study.

The data do not have to meet many statistical requirements for the KW test. In order to carry out the KW test, the following factors should be met [57]:

- The dependent variable should be measured at least on an ordinal scale (it can also be measured on a quantitative scale);
- Observations in the analyzed groups should be independent of each other, which
 means that a person in one group should not be included in another group (this
 requirement is met by dichotomous questions, which enable respondents to be divided
 into two separate groups, and single-choice questions).

The KW test, as a non-parametric counterpart of a one-factor ANOVA, is, therefore, used when the data does not meet the requirements for similar parametric tests and the data can be ordered according to specific criteria. The test checks whether the number of independent results from a group come from the same population or from a population with the same median. Individual samples do not have to be of the same number. The input data is an n-element statistical sample divided into 'k' disjointed groups with numbers ranging from n1 to nk.

The test is interpreted by comparing the value of 'p' with the assumed level of significance (usually 0.05) or by analyzing the test's statistical value in case it is necessary to assess the 'power/intensity' differences between groups. High values of test statistics indicate differentiation in particular groups (i.e., against the equality hypothesis in particular groups), and the higher the values are, the greater the diversity.

In turn, cluster analysis is a multi-dimensional exploratory method. It consists of grouping objects into clusters in such a way that objects within one cluster have more common features with each other than in relation to objects from other clusters. Cluster analysis can be used for grouping people or other objects based on their value in a data set [58]. Cluster analysis can therefore be used for discovering data structures but without providing an explanation or interpretation. In other words, cluster analysis is used for detecting data structures without explaining why they exist.

The chi-square test was used in this study to determine whether there are statistically significant dependencies between the analyzed variables, whereas the V-Cramer coefficient determined the strength of dependencies between the analyzed variables. It is used when at least one variable has more than two values [59], i.e., when the contingency table has dimensions of at least 2×3 .

Statistical analysis of the primary data collected was performed using the IBM SPSS Statistics Ver. 25.

4. Research Results

According to the research conducted, only two out of eleven analyzed needs that can be satisfied due to cooperation with offerors were definitely indicated by less than every fifth respondent (Table 1). These were the needs connected with a group of psychological needs relating to being recognized by other people. At the same time, the largest percentage of respondents indicated these needs as those that are not satisfied due to cooperation with offerors. Thus, these needs obtained average ratings of relatively the lowest values, taking the last two positions in the identified hierarchy of needs. It should be emphasized that, for each of the needs analyzed, the value of the standard deviation did not exceed one-third of the average value, which means that the average values accurately reflect the results obtained [60].

Table 1. Needs satisfied	due to coopera	ation with offerors	according to r	respondents
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Needs Satisfied	Symbol	5	4	5 + 4	3	2	1	2 + 1	Average Rating	Standard Deviation
I feel that I have real influence on an offer and/or company	P10.1	206	49.7	70.3	23.1	5.1	1.4	6.5	3.83	0.863
I feel needed	P10.2	29.4	47.4	76.8	20.0	1.7	1.4	3.1	4.02	0.833
I can check the practical usefulness of my ideas	P10.3	30.3	46.3	76.6	19.7	2.6	1.1	3.7	4.02	0.841
I get an offer that better meets my expectations	P10.4	27.4	49.4	76.8	18.0	3.1	2.0	5.1	3.97	0.873
I get an offer that better meets the expectations of my relatives and friends	P10.5	20.9	50.0	70.9	24.3	3.1	1.7	4.8	3.85	0.84
I acquire new experience	P10.6	38.3	45.1	83.4	13.1	1.7	1.7	3.4	4.17	0.844
I acquire new knowledge	P10.7	38.6	45.7	84.3	12.9	1.4	1.4	2.8	4.19	0.817
I acquire new skills	P10.8	37.1	45.7	82.8	13.1	2.0	2.0	4.0	4.14	0.863
I establish relationships with other people	P10.9	28.9	46.3	75.2	18.3	4.3	2.3	6.6	3.95	0.921
I can boast about my activity	P10.10	17.4	39.7	57.1	32.0	8.6	2.3	10.9	3.61	0.947
I get the recognition of other people	P10.11	17.7	47.7	65.4	28.0	5.7	0.9	6.6	3.76	0.840

where: 5-definitely yes; 4-rather yes; 3-neither yes nor no; 2-rather no; 1-definitely no.

Almost 40% of respondents strongly agreed that three other needs are satisfied due to cooperation with offerors. These needs reflected the acquisition of new elements of marketing potential by respondents in the form of (1) new knowledge, (2) new experience, and (3) new skills. These were the only needs to obtain the total percentage of positive responses amounting to over 80%, taking the first three positions in the hierarchy with average values exceeding 4.10.

In addition to the above three needs, two other needs analyzed obtained average ratings above 4.00. They referred to: (1) the feeling of being needed and (2) the opportunity to check the usefulness of respondents' ideas. It is worth noting that the need to receive an offer that better meets respondents' expectations took a relatively distant (sixth) position, with an average rating of 3.97.

In order to identify the internal hierarchy of final purchasers' needs that can be satisfied due to cooperation with offerors, an exploratory factor analysis was carried out for all respondents. Adequacy measure of the Kaiser-Meyer-Olkin (KMO) draw is 0,937, i.e., greater than 0.5 [61]; Bartlett's sphericity test is significant (variables are statistically significantly related); chi² is 2748,629; and p = 0.000. Based on the Kaiser criterion, four factors with eigenvalues exceeding 1 were identified, which in total explain almost 81% of the total variability of the analyzed system (Table 2). The first factor, with an eigenvalue of 5.819, explains over 62% of the total variability of the aspects studied. It includes three variables (Table 3) with factor loading values of at least 0.7.

Factor	Eigenvalue	Cumulative Eigenvalue	% of Total Eigenvalues (Variation)	Cumulative % of Eigenvalues
1	5.819	5.819	62.376	62.376
2	3.673	9.492	7.538	69.914
3	2.967	12.459	6.305	76.219
4	2.057	14.516	4.494	80.713

Table 2. Hierarchy of factors according to their eigenvalues based on the Kaiser criterion (for the total of respondents).

Table 3. Factor analysis of needs satisfied due to cooperation with offerors, according to respondents (for the total of respondents).

Analyzed Veriable		Fac	ctor	
Analyzed Variable	1	2	3	4
I acquire new experience	0.969	-0.020	-0.053	-0.020
I acquire new skills	0.956	0.047	0.020	0.168
I acquire new knowledge	0.712	-0.010	0.092	-0.248
I can check the practical usefulness of my ideas	0.523	0.116	0.347	0.047
I establish relationships with other people	0.443	0.282	0.070	-0.286
I can boast about my activity	0.029	0.877	0.156	0.179
I get the recognition of other people	0.107	0.717	-0.080	-0.380
I feel that I have real influence on an offer and/or company	-0.058	0.075	0.935	0.064
I get an offer that better meets my expectations	0.226	-0.176	0.676	-0.296
I get an offer that better meets the expectations of my relatives and friends	0.188	0.197	0.616	0.031
I feel needed	0.075	0.201	0.406	-0.533

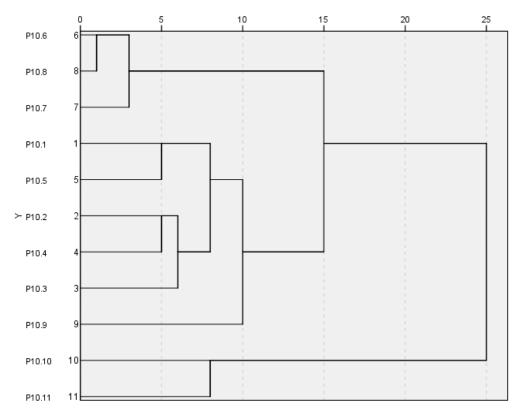
The variables that make up the first factor reflect the needs of acquiring new experience, skills, and knowledge, and thus expanding the existing marketing potential. It is worth recalling that the three variables listed took the first three positions among all needs analyzed, taking into account the values of their average scores.

The second of the identified factors explains a definitely smaller (over eight times) part of the total variability of the studied aspects. It includes two variables relating to the need of being recognized. These variables took the last two positions in the hierarchy identified on the basis of average rating values. However, the third factor is formed with only one variable, referring to the feeling of exerting a real influence on an offer and its offeror. This factor is of the relatively least significance, as evidenced by the lowest eigenvalue and a much smaller part of the system analyzed, which is explained by this factor. The variable forming the third factor took only the ninth place among all the needs analyzed. Within the fourth factor, no variable with a factor loading of 0.7 or more was identified.

It is worth noting that none of the identified factors included variables that reflected the possibility of getting an offer that better meets expectations and relate to relational aspects.

The results of cluster analysis for the total of respondents confirm the results of the exploratory factor analysis. The cluster with the least distance was identified for the variables corresponding to acquiring new experiences, acquiring new skills, and acquiring new knowledge (Figure 1), which forms the first, by far the most important, factor identified during factor analysis.

In the next stage of the analysis, three variables were included illustrating respondents' previous activity relating to cooperation with offerors, their willingness to undertake such cooperation, and their assessment on contemporary purchasers' readiness for such activity. As seen in Table 4, the vast majority of respondents had not previously participated in the process of jointly preparing marketing offers with offerors. Only 12.3% of all respondents showed activity in this area. However, more than half of the respondents declared an open attitude to such cooperation, and as many as 78.0% of respondents believed that purchasers as participants of the contemporary market are ready to co-create offers with offerors. The identified openness of respondents to joint creation of offers, alongside the fact that, for each of the eleven needs analyzed, in total, more than half of respondents



believed that mutual cooperation with offerors allowed the needs to be met, is a positive premise conducive to cooperation between purchasers and offerors in the future.

Figure 1. Dendrogram using the Ward link showing the structure of needs, which according to respondents, are satisfied due to cooperation with offerors. Where: symbols as in Table 1.

Table 4. Respondents' previous participation in cooperation with offerors, respondents' openness to such cooperation, and the assessment of contemporary final purchasers' readiness for cooperation (%).

Bernendents/Oniniane	Indications (%)	
Respondents' Opinions —		No
Respondents' previous active participation in cooperation with offerors while preparing marketing offers	12.3	87.7
Respondents' willingness for active participation in cooperation with offerors while preparing marketing offers	53.4	46.6
Respondents' assessment of contemporary purchasers' readiness for active cooperation with offerors while preparing marketing offers	78.0	22.0

In order to check whether there are statistically significant dependencies between the analyzed variables, statistical testing was performed. It revealed that, between each of the three analyzed aspects reflecting respondents' behavior and attitudes toward cooperation with offerors, and the needs satisfied due to this cooperation, there is a statistically significant dependence (Table 5). Thus, in relation to respondents, the research hypotheses H1, H2, and H3, respectively, are valid. However, these are not strong dependencies. The value of the V-Cramer coefficient is, in each, case less than 0.3, i.e., the limit value between the weak and medium strength of the dependence between the analyzed variables [59]. The relatively strongest dependence occurs in the case of willingness for cooperation, and the weakest is in the case of respondents' assessment of contemporary purchasers' readiness for joint creation of offers with offerors.

 the needs satisfied due to such cooperation.
 Pearson chi²
 V-Cramer
 Level of

 Analyzed Dependence
 Test Value
 Coefficient Value
 Significance 'p'

 Previous participation in cooperation with offerors vs. the needs satisfied due to such cooperation
 89.483
 0.152
 0.000

Table 5. Analysis of dependencies between respondents' attitudes toward co-creation of marketing offers with offerors and the needs satisfied due to such cooperation.

Previous participation in cooperation with offerors vs. the needs satisfied due to such cooperation	89.483	0.152	0.000
Willingness for cooperation vs. needs satisfied due to such cooperation	223.221	0.241	0.000
Respondents' assessment of purchasers' readiness for cooperation with offerors vs. needs satisfied due to such cooperation	78.238	0.143	0.000

In the next stage of the research process, the Kruskal–Wallis test was conducted in order to check possible differentiation between respondents' opinions on the needs satisfied due to the co-creation of a marketing offer by purchasers with offerors according to the following aspects: (1) undertaking such an activity before (Table 6), (2) willingness to undertake such cooperation (Table 7), and (3) assessment of contemporary purchasers' readiness for such cooperation (Table 8). Statistically significant diversity occurred for seven needs in the first case, all needs in the second case, and six needs in the third case. For respondents, research hypotheses H4, H5, and H6 were, therefore, valid only for these variables. It is worth adding that previous activity and the assessment of purchasers' readiness to cooperate with offerors did not differentiate both variables reflecting the needs of recognition and the possibility of being applauded, i.e., the needs that took the last two positions in the hierarchy identified during the research.

Table 6. Analysis of significance of differences between respondents' opinions relating to the needs satisfied due to cooperation with offerors, according to the criterion of respondents' previous participation in such cooperation.

Analyzed Variable	Participation in Cooperation	Ranks	KW Test Value	Level of Significance 'p'
I feel that I have real influence on an offer and/or	Yes	201.14	2 (50	0.055
company	No	171.91	3.678	0.055
	Yes	225.08	10 (01	0.000
I feel needed	No	168.56	13.691	0.000
I can aback the prostical useful pass of my ideas	Yes	208.94	6 1 0 0	0.010
I can check the practical usefulness of my ideas	No	170.82	6.188	0.013
I got an offer that better meets my expectations	Yes	211.95	7.462	0.007
I get an offer that better meets my expectations	No	170.39		0.006
I get an offer that better meets the expectations of my	Yes	199.56	3.255	0.071
relatives and friends	No	172.13		0.071
La cruire pour overenience	Yes	207.73	5.856	0.01(
I acquire new experience	No	170.99		0.016
T	Yes	208.93		
I acquire new knowledge	No	170.82	6.334	0.012
T · 1·11	Yes	209.51		
I acquire new skills	No	170.74	6.510	0.011
	Yes	218.40	10.100	
I establish relationships with other people	No	169.49	10.120	0.001
The second structure is set of	Yes	189.53	1 050	0.000
I can boast about my activity	No	173.53	1.050	0.306
The difference of the second states and the	Yes	203.47	1.001	a a a =
I get the recognition of other people	No	171.58	4.336	0.037

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Analyzed Variable	Willingness to Cooperate	Ranks	KW Test Value	Level of Significance 'p'
I feel that I have real influence on an offer and/or	Yes	201.46	20.07(0.000
company	No	145.72	30.876	0.000
	Yes	201.18	20.074	0.000
I feel needed	No	146.04	30.074	0.000
I can shark the prostical usefulness of my ideas	Yes	203.56	25 (7(0.000
I can check the practical usefulness of my ideas	No	143.31	35.676	0.000
Last an offer that better meets my expectations	Yes	200.15	27.941	0.000
I get an offer that better meets my expectations	No	147.22		0.000
I get an offer that better meets the expectations of my	Yes	191.75	12.160	0.000
relatives and friends	No	156.86		0.000
I acquire new experience	Yes	199.36	26.201	0.000
r acquire new experience	No	148.13	26.284	0.000
I acquire new knowledge	Yes	197.43	00.014	0.000
racquire new knowledge	No	150.35	22.314	0.000
Le courine pour chille	Yes	197.02	01 040	0.000
I acquire new skills	No	150.81	21.343	0.000
I actablish relationships with other people	Yes	192.60	10 170	0.000
I establish relationships with other people	No	155.88	13.172	0.000
I am baset about must stimite	Yes	189.77	0.001	0.000
I can boast about my activity	No	159.13	8.891	0.003
I got the recognition of other people	Yes	190.04	0.604	0.000
I get the recognition of other people	No	158.82	9.604	0.002

Table 7. Analysis of significance of differences between respondents' opinions relating to the needs satisfied due to cooperation with offerors, according to the criterion of respondents' willingness to undertake such cooperation.

Table 8. Analysis of significance of differences between respondents' opinions relating to the needs satisfied due to cooperation with offerors, according to the criterion of the assessment of purchasers' readiness for such cooperation.

Analyzed Variable	Assessment of Purchasers' Readiness for Cooperation	Ranks	KW Test Value	Level of Significance 'p'
I feel that I have real influence on an offer and/or	Yes	183.37	0 7(0	0.000
company	No	147.61	8.763	0.003
	Yes	181.46	F 001	0.025
I feel needed	No	154.38	5.001	0.025
I can check the practical usefulness of my ideas	Yes	180.75	2 967	0.040
I can check the practical usefulliess of my ideas	No	156.87	3.867	0.049
I get an offer that better meets my expectations	Yes	185.22	13.424	0.000
	No	141.05	13.424	0.000
I get an offer that better meets the expectations of	Yes	184.56	11.680	0.001
my relatives and friends	No	143.38		0.001
I acquire new experience	Yes	179.30	2.063	0.151
r acquire new experience	No	162.02	2.063	0.151
I acquire new knowledge	Yes	179.36	0 1 2 2	0.144
I acquire new knowledge	No	161.83	2.132	0.144
I acquire new skills	Yes	180.33	3.320	0.068
I acquire new skins	No	158.38	5.520	0.066
I establish relationships with other people	Yes	181.02	4 0 2 7	0.040
restablish relationships with other people	No	155.94	4.237	0.040
I can boast about my activity	Yes	179.82	2.516	0.113
i can boast about my activity	No	160.19	2.310	0.115
I get the recognition of other people	Yes	179.56	2 210	0.120
I get the recognition of other people	No	161.12	2.310	0.129

5. Discussion

As was shown in the theoretical part of this article, active final purchasers' needs satisfied due to cooperation with offerors have not been studied in the context of purchasers' behaviors and attitudes reflecting their previous experience as active participants of marketing activities and reflecting purchasers' readiness for such activity. The results of the research presented in this article indicate that there is statistically significant dependence between respondents' previous active participation in cooperation with offerors and the needs satisfied due to such cooperation. Statistically significant dependence was also identified between respondents' readiness to cooperate with offerors and the needs satisfied as a result of such cooperation, as well as between opinions on purchasers' readiness to cooperate with offerors and the needs satisfied as a result of this cooperation.

It should be emphasized that other authors have so far focused on analyzing specific reasons for purchasers' willingness to engage in value co-creation. These reasons included altruism [62], self-complacency and social respect [63], social position [64], material rewards [65], costs reduction in the case of energy co-creation [66], satisfaction with performing creative tasks, and even the opportunity to find friends [28], although the last two reasons relate to cooperation with other purchasers, not with offerors. Thus, the subject of these studies was different. The reason for joining in the cooperation is not, however, tantamount to the needs satisfied. It can merely be equated with the needs that purchasers expect to be satisfied due to becoming engaged in cooperation. In addition, the studies of the authors mentioned above did not analyze dependencies between these motivators and the variables proposed in this article.

It is worth adding that the research conducted by Kolomiiets, Krzyżanowska, and Mazurek [28] identified that satisfaction with performing creative tasks was accompanied by the reason for the possibility of obtaining an exceptional and unique product. However, the results of factor analysis conducted as part of the research underlying this article show that the issue of obtaining a product that better meets purchasers' expectations was not found in any of the identified factors. Therefore, these aspects were not related to other needs of the respondents, which can be satisfied through cooperation with offerors.

In turn, Nadeem, Juntunen, Shirazi, and Hajli [30] found that trust does not affect the intention (readiness) to jointly create value. However, in their research, they focused only on 'value co-creation' in the context of the sharing economy and not on cooperation with offerors in relation to the needs satisfied due to this cooperation. In addition, the scope of this research was different, as only representatives of Generation Y were included. These authors did not examine dependencies between needs satisfied due to cooperation with offerors and the variables included in this article, either. It is true that trust can be considered as a result of experiences resulting from previous activity of purchasers as value co-creators. However, results of the research conducted by the author of this article indicate that there is dependence between previous involvement in cooperation with offerors and the needs satisfied as a result.

The results of the research conducted by the author of this study, and in turn, those conducted by other researchers (among others Pan and Holland [67]; Mitrega and Małecka [68]), in relation to the satisfaction achieved by final purchasers due to their involvement in cooperation with offerors, showed that the purchasers' involvement in cooperation is conducive to the increase in customer satisfaction. Such needs as a sense of authentic influence on an offer and/or company and acquiring new knowledge is part of achieving satisfaction. It is worth recalling that the latter of these variables took the first position among the total needs analyzed, creating with the other two variables the most important factor identified during the factor analysis.

In turn, Ranjan and Read [69] and Oertzen, Odekerken-Schröder, Brax, and Mager [70] found that purchasers' pro-social orientation positively affects their involvement in joint value creation. Therefore, they examined the issues of cooperation in a different context than the context of needs satisfied through this cooperation proposed in this article. They focused on the motivators, not on effects. It is worth adding that cooperation may also take

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place between offerors in the form of coopetition. However, coopetition has a completely different nature and scope than prosumeric cooperation. Moreover, it does not include final purchasers. That's why the considerations (conducted inter alia by Czakon, Mucha-Kuś, and Sołtysik [71]) on the abovementioned concept do not focus on meeting their needs.

Some researchers (among others, Leclercq, Poncin, and Hammedi [14]; Kuo and Feng [54]) admittedly examined the effects of purchasers' cooperation with other entities. However, these studies had a different subject scope (they related to cooperation with other purchasers within purchaser community) and a different object scope (they related to online activity), and they related to values obtained due to this cooperation and not the needs satisfied as a result. It is true that the value generated allows a specific need or needs to be satisfied; however, it is not synonymous with these needs, being only a means to satisfy them.

6. Conclusions

In conclusion, it was revealed in this article that it was of key importance for respondents to satisfy the needs of acquiring new knowledge, experience, and skills, i.e., of improving their marketing potential. The three listed needs took the first three positions in the hierarchy of needs that can be satisfied as a result of cooperation with the offeror, creating the first and most important factor identified during the factor analysis. This means that there is a group of respondents who attach importance to the possibility of satisfying only those needs through cooperation with offerors. Obtaining an offer better suited to the expectations of a given person and the expectations of their family members owing to cooperation between purchasers and offerors came in relatively later positions. In addition, neither of these needs entered any of the four factors identified during factor analysis.

It is true that almost 88% of respondents had not previously been involved in any activity of cooperating with offerors, but the majority of respondents were willing to participate in such activities and believed that contemporary purchasers are ready to get involved in this type of activity. It is worth noting that a clearly larger proportion of respondents positively referred to readiness to cooperate with other purchasers, compared to the percentage of people expressing such an opinion in relation to themselves.

This article also revealed that there are statistically significant dependencies between the needs satisfied due to cooperation with offerors and each of the three analyzed variables, i.e., previous participation in cooperation with offerors, willingness to participate in such cooperation, and assessment of contemporary final purchasers' readiness to undertake this cooperation. Thus, for respondents, the research hypotheses H1, H2, and H3 proved to be valid.

For all the needs analyzed, statistically significant differences between respondents' answers regarding the needs satisfied due to cooperation with offerors were identified only in the case of respondents' willingness to undertake such cooperation. Regarding the other two variables reflecting, respectively, previous participation in cooperation with offerors and the assessment of final purchasers' readiness to undertake such cooperation, statistically significant diversity was identified only for some of the needs. In the case of respondents, research hypotheses H4, H5, and H6 proved to be valid only for these variables. It is worth noting that the results of the analysis of the diversity of responses regarding the needs satisfied due to cooperation with offerors due to the criterion of the assessment of purchasers' readiness to begin cooperation with offerors indicate no diversity in the case of 'acquiring new knowledge', 'acquiring new experience', and 'acquiring new skills'.

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

The results of the research conducted and conclusions drawn from it constitute an important contribution to the theory of marketing and theory of market behavior. They fill the knowledge gap identified during the cognitive–critical analysis of world literature on the subject. They show the hierarchy of needs that are satisfied due to cooperation

with offerors and indicate the existence of homogeneous groups of people who perceive a possibility of meeting the same needs in this cooperation. Identifying dependencies between needs satisfied due to cooperation with offerors and the three analyzed variables also enriches the existing knowledge of marketing and market behavior.

The results of the research also have important practical implications, which constitute valuable tips for managers. They indicate, among other things, that, within respondents, there are homogeneous purchaser groups whose representatives see the opportunity to meet the same needs in cooperation with offerors. Representatives of the first of the identified factors, who paid attention to the possibility of increasing their marketing potential by acquiring new knowledge, experience, and skills, may be particularly valuable partners for offerors including offering energy products, especially in the situation of increasing problems in this market. Knowledge of the identified distribution of respondents, especially of the aforementioned group, can definitely help managers effectively use the marketing potential of final purchasers in the process of initiating mutually beneficial cooperation when creating a marketing offer including, for example, activities in the scope of promoting renewable energy sources. Their use is part of the concept of responsible consumption. It should be clearly emphasized that, in order to be able to talk about responsible consumption, final purchasers must have a sense of also meeting their different needs through active participation in creating the marketing offer together with the offerors. It is especially important for managers on the energy market because proposed approach was not used before in the case of these products.

Obviously, this research has some limitations. These include, first of all, its scope, the fact that only adults were considered and that the needs satisfied due to the cooperation between final purchasers and offerors were considered in the context of attitudes toward such cooperation. Recognizing these limitations will guide future research that will analyze minors and will attempt to analyze needs satisfied due to cooperation with offerors in other contexts.

Funding: This research received no external funding.

Data Availability Statement: Not applicable.

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

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