

Article

Relationships between Final Purchasers and Offerors in the Context of Their Perception by Final Purchasers

Agnieszka Izabela Baruk 

Department of Management Systems and Innovation, Faculty of Management and Production Engineering, Lodz University of Technology, 90-924 Łódź, Poland; agnieszka.baruk@poczta.onet.pl

Abstract: The aim of this article was to identify the role of good mutual relationships with offerors for final purchasers, as well as define the meaning of the perception of offerors in the scope of listening to purchasers' opinions and profiting from purchasers' readiness to cooperate for the specificities of the prosumeric activity. A deep analysis of the world literature was used to prepare the theoretical part of this paper. The results of this analysis confirm the existing cognitive gap and research gap regarding mentioned aspects, including energy market. Empirical studies were conducted to reduce identified gaps. The survey method was used to collect primary data. The collected data were subjected to quantitative analysis, during which statistical analysis methods and tests were applied (Pearson chi-square independence test, V-Cramer factor analysis, Kruskal–Wallis test (KW), and exploratory factor analysis). The results of the statistical analysis and testing allowed the three research hypotheses formulated to be checked. Between the significance of good relationships with offerors and their perception, a statistically significant dependence was identified for all groups of offerors. The perception of offerors was a feature differentiating respondents' opinions about the significance of good relationships with offerors for the two following groups: producers and traders. Additionally, the perception of offerors was a feature differentiating forms of prosumeric activity of respondents only for three interpurchase behaviors. The results obtained have a visible cognitive and applicability value. They contribute to the theory of marketing, as well as possibly facilitating the formation of good mutual relationships between offerors (including offerors of energy) and final purchasers as key partners cooperating with offerors in the marketing process. The approach presented in this paper has not been studied and analyzed so far, either in theoretical or in practical terms. This fact confirms its originality and value.



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Keywords: final purchaser; offeror; relationships; perception; prosumer in energy market

1. Introduction

The actions of participants in the goods and services consumption market are based on relationships between individual entities. The quality of interaction between entities is largely determined by one entity's perception of other entities in the interaction. Relationships between final purchasers and offerors are particularly important in the goods and services market. No offeror could function without purchasers purchasing, communicating, and creating. These activities can contribute to the development or destruction of an offeror, including offeror of energy. Purchasers' willingness to purchase, communicate, or create is affected by the following factors: (1) purchasers' assessment of their relationship with the offeror, and (2) purchasers' perception of the offeror in various market roles, such as knowledge user and user of the creativity of purchasers. Taking into account the approaches presented in the world literature, it can be said that dependencies between purchasers' assessments of their relationship with an offeror and their perception of offerors in various market roles have not yet been analyzed, and no attempt has been made to investigate the significance of this in relation to the extra-purchase activity of final purchasers. Thus, there is a cognitive gap and research gap in this area.

This study considers the following research problems: (1) how do purchasers assess their relationship with offerors?; (2) how do they perceive offerors in terms of the offeror listening to their opinion and taking advantage of their willingness to cooperate?; (3) how significant is the perception of offerors in shaping prosumer activity? The aim of the study was to identify the significance attributed by purchasers to good mutual relationships with offerors and to identify the importance of the perception of offerors in relation to the prosumer activity of final purchasers. The article is divided into the following sections: literature review; research goals and hypotheses; method; results; discussion; and conclusions, implications, limitations, and directions of future research.

2. Literature Review

2.1. Relationships between Final Purchasers and Offerors

Considerations should begin with an explanation of the terms used in this article. Among the key concepts are final purchaser and offeror. The final purchaser is defined as a person who buys a product. This term is intentionally used instead of the term “consumer” or “customer”. It is true that in the literature, as a rule, the term “consumer” [1] is used, or the term “customer” [2] as its synonym. However, the consumer is a person using a product, and the customer has a much broader meaning than the consumer or purchaser. The offeror is used in this paper as a term that refers to entities offering products to the consumer market, including producers, traders, and service providers. Taking into account the fundamental assumption of the contemporary marketing approach, which is adopting the final purchaser’s perspective, in this article, their perspective is presented. Considerations presented by the author focus on relationships between final purchasers and offerors. The term of relationships is defined as the links between at least two units which can bring benefits to each side, especially if they cooperate actively.

The activity of final purchasers includes purchase behaviors (e.g., re-shopping, more frequent purchases [1]) and extra-purchase (or nontransactional [2]) behaviors, which include communication and creation behaviors (e.g., expressing positive opinions and sharing ideas about products). The communication and creation behaviors dominate in the activity composition of the prosumer, named as the competent purchaser, working purchaser, active purchaser, or in the case of energy market, even smart purchaser [3], and proactive purchaser actively managing his consumption, generation, and storage of energy [4].

Any activity of final purchasers on the goods and services consumption market (for example, the energy one) involves establishing a relationship with either other purchasers or offerors, who could be producers, traders (mainly retailers), or service providers. The type of offeror influences the nature of the relationship, which could be short or long, or based on material, social, or emotional foundations [5], etc. Different relationships may lead to different effects.

For purchase behavior, the relationship between the purchaser and the offeror is short and has a low level of purchaser involvement. For extra-purchase behavior, especially creation behavior, the relationship can be long and have a high level of commitment. A purchaser who conducts extra-purchase behavior and enters into this kind of relationship with an offeror becomes not only the recipient of certain values, but also their active cofounder. This results in various benefits [6], including usability, as well as hedonic [7], intellectual, and other benefits. The purchaser must believe that the expected benefits will be worth more than the effort required to engage in extra-purchase behavior.

A purchaser’s type of relationship with an offeror defines their market role as active or passive [8], although the terms “active” and “passive” [9] refer to both the purchaser and the offeror, since the relationship depends on both parties. Relationships between purchasers and offerors have different levels of quality. High-quality relationships are always characterized by large mutual trust [10,11]. In these relationships, purchasers have genuine confidence in offerors, and offerors see purchasers as trustworthy partners.

In order for high-quality mutual relationships to be established, an offeror must create appropriate conditions. This may involve redefining the mission of the enterprise [12] and its strategic aspirations. The offeror must also conduct actions that encourage purchasers to do the following: (1) buy the offered products (to form a relationship connected with purchase behavior); (2) comment on the products (to form a relationship connected with communication behavior); and (3) participate in the preparation of the products (to form a relationship connected with creation behavior). Additionally, the offeror must treat purchasers as equal participants in the interaction [13,14]. As it is underlined in the European Commission Documents (for example PROSEU Project [15]), the dynamic growth of the role of prosumers all over Europe challenges current market structures and institutions, including the energy market.

Offerors' creation of appropriate conditions to shape good mutual relationships requires changing from concentrating on creating value for an enterprise, which still dominates in practice [16], to focusing on creating value for the purchaser. This leads to building positive experiences [17], and thus promotes building a relationship with a purchaser that will be favorably assessed by them. Some authors, for example, Lemon and Verhoef [18], consider the positive assessment of a relationship with an offeror, or purchaser experience, as the next important area of research. Of course, involving active purchasers (prosumers) in the cocreating process leads to more profitable and advantageous effects for both sides in the case of different products, including energy ones [19]. It can be stated that prosumers play the key role in development of many product markets. Some researchers define them as the main actors of the market, especially the energy market, determining its future [20].

The relationships between purchasers and other market participants, including offerors, may be established in the real world or online. This includes relationships established through communication and/or creation behavior. Thus, literature identifies active digital prosumers [21,22]. Purchasers' involvement, either online or offline, can be initiated by offerors or by the purchasers themselves [23]. Any expression of willingness to enter a relationship must always be noticed, appreciated, and used by the other party [24], otherwise it will not bring any benefits, and may even discourage purchasers.

In practice, communication behavior often accompanies creation behavior. This kind of behavior requires the greatest involvement of purchasers and their creative, and even innovative, abilities [25]. Using the time, effort, and knowledge required for creation behavior suggests that the purchaser has positively assessed previous relationships with the offeror connected to other behaviors, including purchase behavior. Market activity is thus associated with purchasers' previous experiences with, as well as their perception of, offerors. Offerors are perceived in terms of their behavior in prior relationships as well as in other roles, such as the role of listening to the suggestions of purchasers and taking advantage of their willingness to conduct communication or creation behavior.

2.2. The Perception of Offerors by Final Purchasers

Establishing a relationship with another entity is tantamount to interacting more closely with it, which allows a better understanding of it, and involves acquiring particular market experiences [26]. This leads to particular ways of perceiving the entity, resulting in its image. Of course, the perception of the entity does not have to be a consequence of one's own experience; it may also be based on opinions from others [27].

The image of an offeror is particularly affected by opinions of people with authority [28] and people who set trends. A purchaser's own experiences during any previous contact with an offeror are also significant regardless of the type of product or industry. These experiences are accumulated and stored in the memory of the final purchaser. They belong to internal sources of a specific attitude towards an offeror in contrast to the opinions of other people which belong to external sources of these attitudes. The attitude is characterized by two determinants [29]: (1) mark, which can be positive, negative, or indifferent; and (2) strength, which can be weak or strong. If an attitude towards an offeror

is positive, their image will be rather good, and if the attitude is negative, the image will be bad.

The image of an offeror may be viewed in a wide or narrow perspective. In a wide perspective, the overall image of an offeror is considered, whereas in a narrow perspective, the image of an offeror is based on their fulfilment of a particular market role, such as supplier, employer (see, e.g., [30–35]) or socially responsible enterprise (mentioned, *inter alia*, by Shwu-Ing Wu and Hsin-Feng Lin [36]; Mudrack [37]; and Valentine and Fleischman [38]). Each of the partial images formed in a narrow perspective determines the overall image of an offeror. A good overall image leads to favorable behavior from purchasers to offerors—both purchase behavior and extra-purchase behavior. In the case of the latter, a final purchaser becomes an active cocreator of positive material values (e.g., products) and/or intangible assets (e.g., image), which strengthen the marketing potential of an enterprise. Including all stakeholders in the process of creating positive material values or intangible assets is the main factor of success for offerors [39]. This is particularly true for purchasers, without whom no contemporary offeror could effectively function.

A bad overall image may lead to purchasers' unfavorable behavior, in particular purchase behavior and communication behavior. Not only can purchasers stop purchasing products from a given offeror, but they can also become its active destructors [40], e.g., by giving unfavorable opinions about it, resulting in the deterioration of the offeror's image.

Literature so far has focused primarily on the analysis of the overall and partial images of offerors, as well as on the image of an offeror's products [41,42]. Perception of an offeror has been mainly analyzed as a determinant of purchase behavior [43–46] or as a determinant of attitudes towards products [47–49]. The perception of an offeror as an entity that listens to purchasers' opinions and takes advantage of their willingness to cooperate, and the significance of this perception, has not been examined. Additionally, whether the perception of offerors as entities that respond to purchasers results in different forms of prosumer activity has not been examined. Analysis of these issues in relation to the three groups of offerors—producers, traders, and service providers—has also not been conducted.

3. Research Goals and Hypotheses

The literature review shows a cognitive and research gap in analyzing the perception of offerors as entities that listen to purchasers and take advantage of their willingness to cooperate, and the significance of this perception towards the assessment of relationships with offerors and the prosumer activity of final purchasers. Moreover, these issues have not been analyzed simultaneously for the three groups of offerors (producers, traders, and service providers). That is also why the comparison analysis of these issues cannot be conducted.

The main aim of the article is to identify the role of good mutual relationships with offerors for final purchasers, as well as define the meaning of the perception of offerors in the scope of listening to purchasers' opinions and profiting from purchasers' readiness to cooperate for the specificities of the prosumer activity.

This paper reduces the mentioned gap by aiming to achieve the following specific research goals:

G1: to define the importance attributed by a selected group of respondents to good relationships with offerors.

G2: to define the perception of offerors by the same group of respondents as entities that listen to purchasers' opinions and take advantage of their willingness to cooperate.

G3: to identify the dependencies between the importance attributed to good relationships with offerors and the way offerors are perceived.

G4: to identify the diversity of opinions regarding the importance of good relationships with offerors according to the perception of offerors by the same group of respondents.

G5: to identify the diversity of opinions regarding forms of prosumer activity undertaken according to the perception of offerors by the same group of respondents.

G6: to divide the group of respondents according to their prosumer activity and perception of offerors.

G7: to compare the identified groups of respondents.

The following research hypotheses were examined:

Hypothesis 1 (H1). *There is a dependence between the importance attributed to good relationships with offerors and their perception as entities that listen to final purchasers' opinions and take advantage of their willingness to cooperate.*

Hypothesis 2 (H2). *The perception of offerors is a feature that differentiates opinions on the importance of good relationships with them.*

Hypothesis 3 (H3). *The perception of offerors is a feature that differentiates the prosumer activities of final purchasers.*

4. Methodology of Research

Primary research was conducted to achieve the research goals and verify the hypotheses. It was conducted in the third quarter of 2019 among 1200 Polish adult final purchasers from all over Poland, who completed questionnaires. A total of 1012 completed questionnaires qualified for statistical analysis. Women made up 61% of the surveyed population, which corresponded to the structure of the general population of adult Poles at the time [50]. The greatest part of respondents was represented by people between 36 and 45 years old (25.0%); 21.0% were between 26 and 35 years old; 20% were between 18 and 25 years old. The rest of the respondents were over 45 years old, including 13.0% between 46 and 55 years old; 16.0% between 56 and 65 years old, and 5.0% over 65 years old. A total of 45.0% of the respondents were graduates of secondary education, 28.0% of university education, and 10.0% were graduates with a bachelor's degree; the other respondents had vocational or primary education. Respondents were chosen using nonrandom selection of a quota-type sample. Quotas were taken with regard to the three mentioned characteristics (age, gender, and education) of the entire population of adult Polish people. The minimum sample size was defined as 1067. It was calculated at confidence level $\alpha = 0.95$ and maximum error 3% for the entire population of adult Poles (30.5 million). A larger group of respondents than the minimum sample size was used for the questionnaire to ensure that this minimum sample size would be met. The research was direct and required the interviewer's personal (face-to-face) contact with respondents. This resulted in a high return rate of completed questionnaires.

The research instrument was of an authorial nature. It was therefore prepared specifically for these studies. Internal consistency was assessed using Cronbach's alpha coefficient that was over 0.8, indicating a satisfactory level of internal consistency. The questionnaire investigated the following: (1) the perception of offerors as entities that listen to purchasers' opinions and take advantage of their willingness to cooperate; (2) the importance attributed by purchasers to good relationships with three groups of offerors—producers, traders, and service providers; and (3) the forms of prosumer activity of final purchasers.

During the research, respondents were presented with a set of 15 forms of prosumer activity. These forms were separated on the basis of the results of an analysis of the literature (inter alia, [23,25]) and results of unstructured interviews preceding the main survey. The interviewees included 20 Polish adult final purchasers. It allowed selection of the final set of prosumer activity forms which were assessed by respondents during the main survey.

The perception of offerors was identified by one question that could be answered "yes" or "no". This allowed respondents to be divided into two groups: people who positively perceived offerors and people who negatively perceived them. With this division, it was possible to make a comparative analysis and check whether a positive or negative perception of offerors significantly affected the opinions of respondents regarding their relationships with offerors and their prosumer behavior. In turn, the significance attributed

to good relationships with offerors was identified by means of a four-level Likert scale: 4 stood for “very important”, 3—“important”, 2—“of little importance”, and 1—“totally unimportant”. This scale was used so that respondents could express their opinions more clearly, without giving them the option of answering “I have no opinion”.

For answers to questions regarding particular forms of prosumer activity, an odd Likert scale—one of the most fundamental and commonly used psychometric tools in social sciences [51]—was used. A five-step version was used, in which 5 meant “definitely yes”, 4—“rather yes”, 3—“neither yes nor no”, 2—“rather not”, and 1—“definitely not”. The forms of prosumer activity asked about in the questionnaire were based on the literature review and on unstructured interviews that were carried out before the questionnaire was written. The use of the Likert scale made it possible to later conduct a factor analysis.

The primary data collected from the questionnaire was statistically analyzed using percentage analysis (to achieve goals G1 and G2), the Pearson chi-square independence test and the V-Cramer contingency coefficient (to achieve goal G3 and check hypothesis H1), the Kruskal–Wallis (KW) test (to achieve goals G4 and G5, and check hypotheses H2 and H3), and exploratory factor analysis (to achieve goals G6 and G7). The chi-square test was used to determine if there were dependencies between the analyzed variables. The V-Cramer coefficient was used to determine the strength of relationships between the analyzed variables.

The KW test determined whether the different opinions from respondents were significantly different. This test is a nonparametric equivalent of ANOVA [52,53] and checks whether the number of independent results from a group comes 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 are an n -element statistical sample divided into k disjointed groups with numbers ranging from n_1 to n_k .

Exploratory factor analysis allows for in-depth analysis of primary data. It is applied to reduce the number of variables in primary data obtained from surveys, as well as to classify relationships between these variables. In order to determine the number of common factor, the Kaiser criterion method was applied to leave only factors with eigenvalues greater than 1. Each factor presents the level of overall variability of the system under consideration through a percentage of variance. Within individual factors, the variables with the highest factor loadings within a given factor were distinguished. The value ≥ 0.7 was taken [54,55]. Factor analysis does not determine whether different opinions from respondents are significantly different. The Kruskal–Wallis test is applied for this. The higher the value with a satisfactory level of significance, the more different opinions are.

Statistical analysis was conducted using the Statistica 8.0 package.

5. Results of Research

Over half of the respondents attributed at least great importance to good relationships with each of the three groups of offerors (Table 1). However, for each group of offeror, a high percentage of respondents believed that good relationships with them are of little importance or even completely unimportant. This was particularly true for producers, for whom over 41% of respondents had this opinion. This percentage was more than 10% higher than for traders and service providers. This may be due to the specificity of contact with each type of offeror. Purchasers’ contact with producers is of a much less personal nature than contact with traders and service providers. However, the percentage of respondents who attributed little or no importance to good relationships with traders and service providers can still be considered high. Perhaps this results from the poor perception of offerors as entities that listen to purchasers’ opinions and take advantage of their willingness to cooperate. As many as 60.8% of all respondents believed that offerors do not listen to purchasers and do not want to take advantage of purchasers’ expressed willingness to cooperate. Therefore, it seems worth analyzing respondents’ opinions about offerors in this regard in connection to opinions on the importance of good relationships with them.

Table 1. Respondents' opinions about the importance of good relationships with offerors and their perception of offerors as entities that listen to purchasers' opinions and take advantage of their willingness to cooperate (%).

Opinion on the Importance of Good Relationships with Offerors		Perception That Offerors Listen to Purchasers' Opinions and Take Advantage of Their Willingness to Cooperate				Total	
		Yes		No			
Good relationships with producers	Totally unimportant	6.0	35.7	8.6	44.5	7.6	41.1
	Of little importance	29.7		35.9		33.5	
	Important	44.1	64.3	41.7	55.5	42.6	
	Very important	20.2		13.8		16.3	
Good relationships with traders	Totally unimportant	3.0	22.9	5.0	31.3	4.2	28.0
	Of little importance	19.9		26.3		23.8	
	Important	52.9	77.1	48.1	68.7	50.0	
	Very important	24.2		20.6		22.0	
Good relationships with service providers	Totally unimportant	3.3	23.7	6.2	30.4	5.1	27.8
	Of little importance	20.4		24.2		22.7	
	Important	49.1	76.3	42.4	69.6	45.0	
	Very important	27.2		27.2		27.2	

The results presented in Table 1 indicate that, similarly to the results for all respondents, the majority of respondents who positively perceive offerors and those who perceive offerors unfavorably attributed at least high importance to good relationships with them. It can be noted, however, that more respondents who had a good perception of offerors believed that good relationships were important compared to those who negatively perceived offerors. Clearly, respondents who unfavorably perceived offerors attributed relatively less significance to good relationships with them. This was visible for each group of offeror. The results indicate that there may be a dependence between the importance attributed by respondents to good relationships with offerors and their perception.

To test the H1 hypothesis, that is, to check whether this dependence actually existed, a chi-square test was performed. It confirmed a statistically significant dependence between the importance attributed by respondents to good relationships with offerors and the perception of offerors as entities that listen to purchasers' opinions and take advantage of their willingness to cooperate. This dependence was found for each of the three groups of offerors (Table 2). The H1 research hypothesis is therefore valid for the respondents. However, the dependence was not strong, as evidenced by the low values of the V-Cramer contingency coefficient. The strongest dependence was found for producers, for whom the value of the coefficient was the highest. It is worth recalling that the largest percentage of respondents attributed little or no significance to good relationships with producers.

Table 2. Dependencies between opinions about the importance of good relationships with offerors and the perception of offerors as entities that listen to purchasers' opinions and take advantage of their willingness to cooperate.

Analyzed Variable	Chi ² Test Value	V Cramer Contingency Ratio	Level of Significance 'p'
Good relationships with producers	11.107	0.105	0.011
Good relationships with traders	8.981	0.094	0.030
Good relationships with service providers	7.983	0.089	0.046

In the next stage of analysis, the H2 hypothesis was tested. The Kruskal–Wallis test was carried out in order to check possible differentiation between respondents' opinions on good relationships with each type of offeror according to their perception. As can be seen from Table 3, statistically significant differences were found for two groups of offerors:

producers and traders, and the difference was relatively larger for producers. There was no statistically significant difference for service providers. The hypothesis H2, therefore, is valid for producers and traders.

Table 3. Significance of different opinions between respondents: the importance of good relationships with offerors according to the perception of offerors as entities that listen to purchasers' opinions and take advantage of their willingness to cooperate.

Analyzed Variable	Perception That Offerors Listen to Purchasers' Opinions and Take Advantage of Purchasers' Willingness to Cooperate	Kruskal–Wallis Test Value	Level of Significance 'p'
Good relationships with producers	Yes	542.19	0.001
	No	484.32	
Good relationships with traders	Yes	535.74	0.007
	No	488.48	
Good relationships with service providers	Yes	523.25	0.130
	No	496.53	

Purchasers' cooperation with offerors can be either communication or creation behavior with offerors or other purchasers. Therefore, in the next stage of the research, 15 forms of prosumer activity reflecting communication and creation behavior were analyzed. In the original questionnaire, respondents assessed each form of activity on a five-point Likert scale. In the analysis of their responses, the Kruskal–Wallis test was applied to check whether the perception of offerors was a feature differentiating responses regarding particular behaviors. It allowed checking of the H3 research hypothesis.

As can be seen in Table 4, a statistically significant difference was identified for four forms of activity. Three of these activities were communication behaviors shared with other purchasers (extra-purchase presumption), and one consisted of the independent manufacture of products, which did not require entering into a relationship with another entity. As no relationship needed to be formed, it can be questioned whether this behavior is a form of prosumer activity. This is discussed later. Statistically significant differences were not identified for any form of activity requiring a relationship with offerors. The H3 research hypothesis for respondents can thus be considered valid only for four forms of activity.

Table 4. Significance of differences between respondents' opinions regarding forms of prosumer activity according to the perception of offerors as entities that listen to purchasers' opinions.

Forms of Prosumer Activity	Symbol	Perception That Offerors Listen to Purchasers' Opinions, etc.	KW Test Value	Level of Significance 'p'
I express my opinions about products I use via the Internet (e.g., on an online forum or on the store's website), but I do not contact the producer directly.	a	yes	527.63	0.063
		no	493.70	
I express my opinions about products I use without using the Internet (to friends/family, directly in the store, etc.), but I do not contact the producer directly.	b	yes	513.21	0.564
		no	503.00	
I add comments about the products I use to other purchasers' opinions on the Internet.	c	yes	529.99	0.038
		no	492.18	
I read the opinions of other purchasers posted on the Internet about the products I use or intend to use.	d	yes	531.92	0.024
		no	490.94	
I listen to opinions of other purchasers not posted on the Internet about the products I use or intend to use (from friends/family, sellers, etc.).	e	yes	536.56	0.006
		no	487.95	
On my own initiative, I contact producers via the Internet expressing my opinion/giving advice about products I use or intend to use.	f	yes	525.22	0.086
		no	495.26	

Table 4. Cont.

Forms of Prosumer Activity	Symbol	Perception That Offerors Listen to Purchasers' Opinions, etc.	KW Test Value	Level of Significance 'p'
On my own initiative, I contact producers without using the Internet to express my opinion/give advice about products that I use or intend to use.	g	yes	509.10	0.842
		no	505.65	
On my own initiative, I contact producers via the Internet, asking questions about products I use or intend to use.	h	yes	519.25	0.249
		no	499.11	
On my own initiative, I contact producers without using the Internet, asking questions about products I use or intend to use.	i	yes	503.84	0.767
		no	509.04	
I participate in activities organized by companies via the Internet, resulting in me becoming a cocreator of a product or its attributes, e.g., packaging, brand, etc.	j	yes	524.73	0.096
		no	495.58	
I participate in activities organized by companies in other ways than via the Internet, resulting in me becoming a cocreator of a product or its attributes, e.g., packaging, brand, etc.	k	yes	518.94	0.262
		no	499.31	
I participate in activities organized by companies via the Internet, resulting in me becoming a cocreator of promotional activities, e.g., advertising slogans, advertising campaigns, etc.	l	yes	515.21	0.440
		no	501.71	
I participate in activities organized by companies in other ways than via the Internet, resulting in me becoming a cocreator of promotional activities, e.g., advertising slogans, advertising campaigns, etc.	l	yes	508.08	0.919
		no	506.30	
I participate in activities organized by companies, resulting in me becoming a cocreator of any other activities/elements of the company apart from the product and promotion.	m	yes	510.49	0.745
		no	504.75	
I produce products myself (without contacting the producer whatsoever), for economic or practical reasons.	n	yes	543.33	0.001
		no	483.59	

In order to identify and compare the forms of activity undertaken by the respondents, a factor analysis was carried out for all respondents as well as for respondents who positively perceived offerors and those who perceived them negatively. On the basis of the Kaiser criterion, in each case, four factors with an eigenvalue exceeding 1 were separated (Table 5). The first factor explained over 45% of the total variability of the studied phenomenon for all respondents, respondents who positively perceived offerors, and respondents who perceived them negatively. In each case, the first and second factor combined explained significantly more than half of the total variability.

Table 5. Hierarchy of factors according to their eigenvalues based on the Kaiser criterion.

Factor	Eigenvalue			% of Total Eigenvalues (Variation)			Cumulated Eigenvalue			Cumulated % of Eigenvalues		
	Total	Yes	No	Total	Yes	No	Total	Yes	No	Total	Yes	No
1	6.760	6.982	6.834	45.065	46.545	45.563	6.760	6.982	6.834	45.065	46.545	45.563
2	1.831	1.855	1.829	12.209	12.367	12.193	8.591	8.837	8.663	57.274	58.912	57.756
3	1.331	1.299	1.369	8.871	8.662	9.129	9.922	10.136	10.033	66.144	67.574	66.885
4	1.120	1.100	1.150	7.465	7.335	7.666	11.041	11.236	11.183	73.610	74.909	74.551

- For total respondents, the adequacy measure of the Kaiser–Meyer–Olkin (KMO) test equals 0.894, which is greater than 0.5; Bartlett's test of sphericity is valid (variables are statistically significantly related to each other); χ^2 is 2478.376; $p = 0.000$; and Cronbach's alpha is 0.911.
- For respondents who answered "yes", KMO test = 0.892; Bartlett's test of sphericity is valid; χ^2 is 1307.295; $p = 0.000$; and Cronbach's alpha is 0.901.

- For respondents who answered “no”, KMO test = 0.852; Bartlett’s test of sphericity is valid; χ^2 is 1210.543; $p = 0.000$; and Cronbach’s alpha is 0.899.

The internal structure of the first and second factor for each group of respondents (all respondents, respondents who positively perceived offerors, and respondents who negatively perceived offerors) is the same (Table 6). The first factor for each group included five forms of activity inspired by and undertaken with offerors on the Internet and in real life. The second factor included two forms of extra-purchase activity conducted offline. The third and fourth factors have differences in their internal structure. For the third factor, it was possible to identify variables with factor loadings of at least 0.7 only for respondents who unfavorably perceived offerors. In their case, this factor included three forms of extra-purchase activity undertaken on the Internet. The fourth factor for each of the three groups of respondents included spontaneous forms of activity undertaken with offerors, although the number of the forms of activity was the lowest for people who positively perceived offerors and the highest for people who negatively perceived offerors. It is worth noting that “independent manufacture of products” was not included in any factor. Furthermore, as part of the third factor, this variable had a high negative value, especially for respondents who positively perceived offerors. This means that this group of respondents did not conduct this type of activity, which confirms the previously formulated conclusion.

Table 6. Factor analysis for three groups of respondents (total respondents, respondents who positively perceived offerors, and respondents who negatively perceived offerors).

Analyzed Form of Prosumer Activity	Factor											
	1			2			3			4		
	Total	Yes	No	Total	Yes	No	Total	Yes	No	Total	Yes	No
a	0.401	0.533	0.307	0.201	0.305	0.141	0.685	0.568	0.736	0.305	0.320	0.297
b	0.075	0.042	0.102	0.802	0.792	0.800	0.078	−0.101	0.155	−0.017	0.028	−0.054
c	0.274	0.351	0.234	0.249	0.332	0.195	0.642	0.464	0.720	0.440	0.549	0.359
d	0.181	0.217	0.168	0.419	0.539	0.342	0.686	0.540	0.746	0.116	0.147	0.100
e	0.006	−0.001	−0.005	0.812	0.837	0.793	0.112	0.006	0.158	−0.002	−0.082	0.055
f	0.121	0.071	0.290	0.008	−0.011	0.024	0.132	−0.033	0.291	0.763	0.785	0.778
g	0.357	0.510	0.215	0.032	−0.031	0.070	0.010	−0.048	0.050	0.795	0.713	0.856
h	0.465	0.513	0.405	−0.015	0.015	−0.036	0.190	0.150	0.208	0.706	0.660	0.768
i	0.491	0.571	0.413	0.010	−0.048	0.052	0.014	−0.014	0.030	0.664	0.609	0.708
j	0.778	0.839	0.712	0.026	0.049	−0.004	0.157	0.085	0.193	0.348	0.218	0.457
k	0.852	0.889	0.808	0.066	0.079	0.056	0.090	0.066	0.089	0.280	0.198	0.365
l	0.860	0.892	0.839	0.034	0.051	0.026	0.208	0.158	0.221	0.223	0.207	0.247
ł	0.870	0.888	0.866	0.051	0.063	0.050	0.121	0.065	0.137	0.191	0.195	0.194
m	0.846	0.860	0.839	0.077	0.059	0.095	0.162	0.108	0.180	0.231	0.233	0.238
n	0.012	0.009	0.001	0.442	0.281	0.487	−0.669	−0.809	−0.587	0.231	0.154	0.247

where letters from “a” to “n” are as in Table 4.

The results obtained indicate that the variables included in the separate factors reflect homogeneous behaviors towards entities that initiate cooperation and with which cooperation is undertaken. It is worth remembering that when opinions, attitudes, or market behaviors are analyzed using the factor analysis method, the factors distinguished in the factor analysis can be treated as segments of people [56]. The three groups of respondents in this study can be divided into four segments, as seen in Table 7. Each segment of respon-

dents is symbolically named (for example “prosumers inspired by offerors (active on the Internet and offline)”), taking into account the results of factor analysis. This means that the proposed name of the segment reflects the specificity and scope of prosumer activity of respondents belonging to a given segment.

Table 7. Segments of respondents according to total respondents, respondents who positively perceived offerors, and respondents who negatively perceived offerors, based on their prosumer activity.

Segment	Group of Respondents		
	Total	Yes	No
1	Prosumers inspired by offerors (active on the Internet and offline)	Prosumers inspired by offerors (active on the Internet and offline)	Prosumers inspired by offerors (active on the Internet and offline)
2	Extra-purchase prosumers (active offline)	Extra-purchase prosumers (active offline)	Extra-purchase prosumers (active offline)
3	-	-	Extra-purchase prosumers (active on the Internet)
4	Spontaneous prosumers initiating joint activities with offerors (active on the Internet and offline)	Spontaneous prosumers initiating joint activities with offerors (active on the Internet and offline)	Spontaneous prosumers initiating joint activities with offerors (active on the Internet and offline)

6. Discussion

The results of the studies indicate that the majority of the respondents in this study negatively perceived offerors in terms of their listening to purchasers’ opinions and taking advantage of their willingness to cooperate. Although literature describes a new business model based on the inclusion of purchasers as active contributors to the process of value creation [57–59], the feelings of purchasers themselves deny the practical application of such an approach to many offerors. Offerors need to constantly search for new ways to satisfy the growing expectations of purchasers by providing them with new values in order to gain a competitive advantage [60]. These values should be difficult, or even impossible, to copy by other enterprises [61]. One such value is building and strengthening good mutual relationships. In this study, the formation of relationships was considered as at least important by the majority of respondents, especially by those who positively perceived offerors as entities that listen and cooperate. Moreover, statistically significant dependencies between opinions on the importance of relationships and the perception of offerors were identified.

After dividing respondents into segments, it is clear that a key segment identified for producers, traders, and service providers, respectively, is people who conduct prosumer activity both on the Internet and offline. Another important segment is people conducting only offline activity. The discovery of these segments confirms that communication and creation behaviors are conducted both on the Internet and in the real world, and in the case of extra-purchase activity, behaviors conducted in the real world are relatively more important than behaviors undertaken online. Therefore, many authors’ conclusions that prosumer activity is undertaken only, or mainly, on the Internet [62,63] was not confirmed in this study.

A common feature for respondents—all respondents, those who perceived offerors positively, and those who perceived them negatively—was that they performed prosumer activity when inspired by offerors. The importance of inspiring purchaser activity is highlighted in other works, e.g., Haumann, Güntürkün, Schons, and Wieseke [64], or Martineau and Arsel [65]. However, in this study, respondents negatively evaluated offerors in terms of inspiring purchaser activity, which indicates that offerors’ actions are frequently not effective. One segment of respondents was identified as those that undertake exclusively extra-purchase activity. This finding contributes to literature regarding the creation of values by purchasers for other purchasers (see, e.g., Grönroos and Voima [66]). In this study, it was found that this behavior does not take place only in the virtual world, for which it is often analyzed (see e.g., Chu and Manchanda [67]), but also in the real world.

It is also worth noting that the independent manufacture of products was not represented in any of the identified segments. In the approach adopted in this article, a particular behavior could be considered as prosumer activity if a relationship with another entity was established. This does not occur in independent production. Although some authors classify this behavior as characteristic for active purchasers (see, among others, Atakan, Bagozzi, and Yoon [68]; Da, Yang, and Yun [69]; and Tian, Shen, and Chen [70]), strongly exposing it in the case of the energy market (see, among others, Kuchmacz and Mika [71] or Zepter, Lüth, Granado, and Egging [72]), this study suggests that it should not be considered as a form of prosumer activity.

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

Based on the presented considerations, it can be concluded that the majority of respondents considered good relationships with offerors, particularly traders and service providers, as important or very important. At the same time, over half of the respondents believed that offerors do not listen to purchasers' opinions and do not take advantage of their willingness to cooperate, which can be considered a negative perception of offerors. A statistically significant dependence was found between these two opinions. Thus, hypothesis H1 turned out to be valid for the respondents.

The perception of offerors was a feature that differentiated opinions about the importance of good relationships with producers and traders. The H2 research hypothesis is therefore valid for these two groups of offerors, but not for service providers. The perception of offerors also differentiated the form of prosumer activity undertaken by the respondents for three extra-purchase behaviors ("I add comments about the products I use to other purchasers' opinions on the Internet", "I read the opinions of other purchasers posted on the Internet about the products I use or intend to use", and "I listen to opinions of other purchasers not posted on the Internet about the products I use or intend to use (e.g., from friends/family, sellers, etc.)"). Hypothesis H3 is therefore valid only for these three behaviors. For all respondents, respondents who positively perceived offerors, and respondents who perceived them negatively, four homogeneous types of prosumer activity were identified. The majority of respondents who were prosumers were inspired by offerors and conducted their prosumer activity both on and off the Internet.

The obtained results contribute to marketing and consumer market research and have management and social implications. They can facilitate the development of good mutual relationships between offerors and final purchasers, who should be considered as important partners in the marketing process in order to meet the growing expectations of final purchasers and to also build a unique competitive advantage in the case of the energy market.

The results bring significant practical implications, constituting valuable guidelines for managers. They indicate, *inter alia*, respondents' opinions about the importance of good relationships with offerors and their perception of offerors. Moreover, they reflect comparing these opinions for the three groups of offerors: producers, traders, and service providers. The knowledge of these issues allows offerors to know the final purchasers much better and to build stronger and more lasting mutual relationships. It can enable managers to effectively use the marketing potential of final purchasers, especially their relationship potential, for example in the process of cocreation marketing values during prosumer activity of final purchasers. Identification of final purchasers' segments has particular managerial importance. Managers can prepare and conduct activities that strictly correspond to the features of representatives of a given segment separated according to the perception of offerors as entities that listen to final purchasers' opinions. It allows building of satisfaction and emotional loyalty of final purchasers, as well as creation of a good image of offeror that cares about purchasers. The conclusions drawn on the basis of the research results may therefore be a valuable hint for offerors representing various sectors of the consumer market, including the energy one.

The research has some limitations. Respondents of the questionnaire were only Polish adult final purchasers, and the questionnaire only included selected forms of prosumer activity and one aspect of the perception of offerors. Future stages of research aim to eliminate these limitations by seeking the opinions of minors and final purchasers from other countries, and by including other forms of prosumer activity and other aspects of the perception of offerors.

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