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The Construction of the Green Distribution Model and its Application on Consumers Perception

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Abstract
The green logistics item as a part of distribution processes represents an innovative perspective in many views. This perspective is current from an offer and demand point of view. Many authors examine only the businesses aspect, while labour market acceptance is important. The aim of this article is to create and verify a green distribution model and this examines the green distribution perception from the consumer's point of view in a context of chosen demographic characteristics. The creation of a green distribution model is supported by secondary research at which consists of four parts – input, transport, production and sale. Model verification was taken with primary research which base was created of 409 respondents. In the study, we use many statistical and mathematical, as well as scientific and philosophical methods. Among the most significant belong Cronbach's alpha and McDonald's omega. We used to verify and estimate model reliability, correlation analysis for relation research, one-way ANOVA test for research hypotheses verification and cluster analysis for identification of possible hidden clusters. The model can be considered a reliable one. Results indicate a low influence of distribution ecological factor in a consumer's perspective, as well, it can be stated, the age, contrary to sex, represents a significant factor in a green distribution perception. Results can be used in both the academic and commercial spheres in various fields and disciplines. The primary survey was conducted in Slovakia, but it would be appropriate to examine the model in other countries, as well as to identify factors that may affect the model of green distribution in the future.

Keywords
Complex logistic systems, Green distribution, Smart distribution.

Introduction

In these days of growth of the ecological awareness at consumers, we more often meet with innovation perspectives and elements of marketing mix in the context of environmental science and ecology. From the distribution perspective (place) we can speak about many aspects that mingle. The green and reverse logistics can be marked as two the most significant ones. The sustainability and ecological and environmental aspect still have more significant position in commercial and scientific area; while numerous scientific studies research a connection of three fields – environmental science, economy and sociology (Rahimifard and Clegg, 2007; Seliger et. al 2008). The ecology and environmental science issue already integrate into business model and actions, while a strong emphasis is on the social business responsibility (Kunz, 2012). It should be noted; distribution theories represent really wide scientific field. As said above, we deal in this study with the distribution in the context of environmental awareness. The distribution is understood as a sequence of flows, while we concentrate on logistic part – the distribution routes. The distribution represents one element of marketing mix which is used by businesses for mobilization of marketing effort. We deal with an issue which requires a high attention also from the professional experience and commercial public pressure perception. A natural resources protection, ecological awareness or responsible consumption are crucial fields which should be solved. Numerous scientific articles speak about a green logistics as a competitive advantage; however, it is necessary to realize, it will become a competitive advantage only assuming the market acceptance. Therefore, we thought of evaluating possibilities of the

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issue acceptance by market. Based on the mentioned gap in scientific research, our aim goal is to design the green distribution model based on the scientific literature. This model will contain crucial aspects of the green distribution from the consumers point of view. Since there is a huge amount of consumer behaviour factors, we decided for an impact research of two demographic factors – a sex and age of consumers, since they seem to be a significant one for evaluation of ecological aspects also from the sustainable consumption view (Čvirik and Ölveczká, 2020b). This article is supported by a primary research that took place in Slovakia. The aim is not only to verify a functionality of suggested model and consumer evaluation, but also a research of the consumer characteristic impacts to gained values and segmentation regarding to the suggested model. Results can be applied in both theory and practice in fields of marketing, business management, trade and other fields.

Literature review

Weld (1915, p. 125) pointed out "Marketing is a part of production. It has to do with the creation of time, place, and possession utilities, before manufacturing has to do with the creation of form utilities." Moeller (1995) sees the distribution in the context of rights transfer, properties and information, while we distinguish activities of logistics and acquisition. Daňo and Kita (2009, p. 9) see the distribution as "connection of production and demand field in both sides, the industrial manufacturers and final consumers". The distribution can be understood as a process that helps to link a preparation for production, a production itself and a transfer of goods to consumers.

Numerous authors (e.g., Linton et.al., 2007; Seuring and Müller, 2008; Çamlıca and Akar, 2014; Hazen et al., 2014) focus on ecological aspect in logistics, so called green logistics, and sustainability logistics. Although, when speaking about a complexity under the terms of distribution, we must consider not only the logistics, but also the acquisition within distribution.

From the process perception, it can be marked as a crucial gaining of material and raw material for production (orders receiving and handling, storage and other) production (physical process, wrap production and selection and others), transfer (transport, delivery points and dispatch) and sale in a sense of acquisition.

Inputs represent different semi-finished products, material and raw material gained for further processing purposed and those of production. A preference of green inputs can increase a potential of their recycling and look ecological, what can eventually increase a customer satisfaction and loyalty (Rashid, Rahman, Khalid, 2014; Kawa, Pierański, 2021). A purchase of environmentally safe inputs can represent a step towards successful strategy in the era of ecological awareness and sustainability. Corzine and Jackson (2006) state, businesses which actively solve inputs purchase in context of environmentally and ecological principles have higher growth rate.

The production is not a typical distribution sphere, however, form the continuity point of view it represents a significant step in the process. Many studies prove that the green production becomes wider (Baines et al., 2012; Brandt, 2007; Dills & Stone, 2007). There is a considerable difference in seeing of the green production. In some cases, it can be understood not only in a sense of general restrictions (emission reduction in production, efficient use of energy and water, and others), but also in a sense of active health protection of workers in production, consumers and public (Ball et al., 2009). It is also necessary to choose a proper wrap in production. As Büyüközkan and Vardaloğlu (2008) say wraps can positively influence a business economic performance in a significant extent, once they are made from recycled and recyclable material and are maximally adapted for product use (size, shape and other features). With this also increases a physical distribution efficacy. A green wrap should be harmless to live organisms and it is many times understood as easily recyclable in elimination.

From the green distribution point of view, the transport is conditioned by numerous aspects. Among the key ones are a transport type, vehicle type, but also a related fuel consumption (Tiwari, Singh, 2011). A significant innovation shift can be seen in creating a delivery points where consumers can pick up their deliveries. In a certain sense, this way of delivery can be marked as a mediation while there is a reduce of contact need and consumption decrease from a shipper side (Mangiaracina et al., 2015). Kawa and Pierański (2021) say just a delivery points can reduce emissions by 60% in cities and by 90% in villages while thanks to a delivery points a supplier (courier) is capable to deliver 10 times more packages.

A sale represents a significant part of the distribution form the acquisition point of view (Daňo, Kita, 2009). We focus on a sale ordinarily to a final consumer. Important is a shop atmosphere that can influence in significant extent a consumer decision-making. More and more consumers consider ecologically safe products (Abukhader, Jönson, 2003). Zsidisin and Siferd (2001) looked into a green logistics relation to sale while they focus in significant extent to B2B sector; at which just few authors look into an impact of green logistics in B2C conditions.

On the basis of the mentioned we state there are 4 spheres / components that in significant extent shape the green distribution. On the basis of the mentioned, a theoretical model can be created which presents a stated situation (see Figure 1).
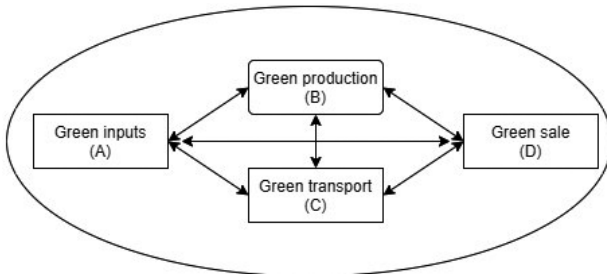

Fig. 1. Theoretical model.
Source: Own processing

Certainly, the model is presented in a sense of flow – process, however, it is necessary to realize particular components have a continuity from theoretical base point of view.

In the context of consumer behaviour, it is to be understood that in order for green logistics to have a competitive advantage, it must be accepted by consumers and must therefore be understood from the consumer's point of view. There are several studies (e.g., Antilles, 1984; Abdul Wahid et al., 2011; Courtenay-Hall & Rogers, 2002; Chan, 1998; Čvirik and Ölveczká, 2020a; Roberts, 1995) that point to on the high rationale for examining awareness, sustainability and environmental responsibility in the context of consumer behaviour, but no available study has yet linked this concept to distribution policy.

Materials and methods

The article's main aim is presented in a sense of flow – process, however, it is necessary to realize that particular components have a continuity form the theoretical base point of view.

We have created a "model of green distribution" to fulfil the main aim. This model results in findings focused on processes in a context of green logistics (and distribution) from domestic and foreign scientific literature.

On the basis of set main aim, we formed following research questions and hypotheses:

RQ1: How to describe a consumer perception in model components context?

RQ2: How do consumers perceive a green distribution in an introduced model context?

H1: Is there a relation between green distribution perception and respondents' age.

H2: Is there a relation between green distribution perception and respondents' sex.

RQ3: How consumer segments can be described from their preferences point of view by designed green logistics model?

We use a basic scientific and philosophical methods such as analysis, synthesis, comparison or scientific abstraction in this study. In a significant extent we also use statistical and mathematical methods which are realized by using software programs Excel (module Data analysis), JASP (JASP 0.14.1), SPSS (ver. 25) and R Studio (ver. 1.4.1106). We specifically use a reliability analysis (Cronbach alpha, McDonald's omega), Cluster analysis (Two-Step Cluster analysis), correlation and regression analysis as well as one-way ANOVA test for hypotheses verification purposes. Cronbach alpha as well as McDonald's omega represent a tool for coefficient calculation of internal consistency what can be used for reliability tool estimation. The procedure Two-Step Cluster analysis is for a revelation of natural consumers grouping in a dataset that must not be clear at first sight. Cluster analysis with Two-Step algorithm was chosen regarding to advantages that bring in comparison to other Cluster analyses.

Sample

This study us supported by primary research. A basic population was defined as "Slovak consumers over 15 years of age". From this is clear that we focus on Slovaks, preferably. The age limit was stated from ethic reasons as well as form scientific attitude; since many scientists, state consumers of 15 years of age start to have their own money and they form their own habits, opinions and consumer behaviour as well.

It can be stated in general that it was a quantitative method of demand with help of standardized research tool – a questionnaire. The sample was a nonprobability sample (Convenience sampling). A base of primary research was created by 409 respondents. Regarding to the sample size and character the margin of error was around 4.85%. We recorded a generic characteristic of the sample to Table 1.

We can state from the Table 1 that more women than men attended the research. From the age point of view, we proceeded according to values used by Statistical Authority of Slovak Republic. A group of respondents of 40–64 years of age is dominant. The second most numerous is the one of 15–39 years of age. Abd the smallest is the one of over 65 years of age. We can state in general the sample has an approx-

Table 1
Basic sample variables

Characteristics		Parameters	
		Frequency	Valid percent
Age	15–39	177	43.3
	40–64	210	51.3
	65+	22	5.4
Sex	female	225	55.0
	male	184	45.0
Total		409	100.0

imately identical character with parameters of basic population.

Green distribution model

Primary model (prototype) consisted of 20 entries and 4 components. Pilot model testing was taken on unrepresentative sample of 96 students of university studies. A quantitative research was followed by qualitative one, while we examined an understanding and interpretation of single entries by sample. The model was updated and modified to 12 entries after a deep analysis (CFA, Cronbach alpha, McDonald's omega, qualitative research). Such a model was the best option for further research.

It was necessary to verify a reliability of new suggested 12 entries model in a first step. Since this model consists of 4 range tools (green inputs, green production, transport and sale), we verified a reliability on the base of inner consistency by Cronbach alpha. Naturally, it is necessary to state that Cronbach alpha has a significant lack in the fact that is significantly influenced by a number of statements (in our case it was of 12 statements). Therefore, we decided to verify a reliability also on the vase of McDonald's omega. We took results down to Table 2.

Basic recommendations for Cronbach's alpha as well as for McDonald's omega say it is good for measured values to reach more than 0.700. based on these reliability estimations by given coefficients, we may state a good reliability (De Vaus, 2002; Tavakol and Dennick, 2011). We can equally state from the perspective of Cronbach's α calculations as well as McDonald's ω that there is no need to exclude any statement since doing so we do not reach higher value than the current one of research tool.

Table 2
Basic sample variables

Item	Code	Cronbach's α*	McDonald's ω**
I care about material and raw material used in final product were environmentally safe.	A1	0.805	0.813
Businesses should use only material and raw material which are from ecologically sustainable resources.	A2	0.779	0.786
I think it is important that businesses use environmentally safe and ecologically sustainable production inputs as much as possible.	A3	0.804	0.815
An ecologically safe production is important for me.	B1	0.809	0.816
A product wrap should be environment-friendly.	B2	0.791	0.800
Businesses damaging environment by their production should be closed.	B3	0.807	0.814
Product transport should be set in such way to be most environment-friendly one.	C1	0.790	0.801
I rather use delivery points when picking up an order to spare the environment.	C2	0.794	0.801
The transport has an influence on environment in a significant extent (air pollution, noises), therefore, each business should occupy with it.	C3	0.806	0.817
Shops should be environmentally aware.	D1	0.809	0.819
I am attentive to an ecological aspect of product on its wrap.	D2	0.779	0.787
I prefer to buy products in ecological-friendly wrap though they are more expensive.	D3	0.805	0.815

Notes: *Total value of Cronbach's α for research tool represents 0.812 value.
** Total value of McDonald's ω for research tool represents 0.820 value.
Source: Own calculation (with SPSS and JASP software)

Since we think about model which consists of 4 components in this study, we estimated model reliability also regarding to the single components. It is necessary to state; determination method of single components was following:

Inputs marked as A represents summarization of statements coded as A1, A2 and A3. Second components, production, was marked as B, while it consists of sum of the entries B1, B2 and B3. Next component, transport, we marked under C, while it consists from 3 statements – C1, C2 and C3. Last component is priority understood as a part of acquisition – sale, while it is marked under D and consists of 3 issues – D1, D2 and D3.

On the basis of the given we examined also reliability from the components perspective, while results are recorded in Table 3.

Table 3
Reliability estimation for modules

Module	Code	Cronbach's α*	McDonald's ω**
Green input	A	0.775	0.810
Green production	B	0.797	0.800
Transport	C	0.748	0.777
Sale	D	0.722	0.754

Notes:
*Total value of Cronbach's α for research tool – 0.811
** Total value of McDonald's ω for research tool – 0.824
Source: Own calculation (with SPSS and JASP software)

Form the Table 3 can be stated, estimated reliability based on Cronbach's α as well as McDonald's ω reaches a good level. At the same time can be stated there is no need to exclude any component, since a higher reliability of tool would not be reached. Based on the given we state a good estimated level of reliability and we will further work with components within model.

It is necessary to verify a connection of single modules to speak about model. We used correlative coefficients (Spearman correlative coefficient was chosen due to data type) to determine a relation. These coefficients were subsequently recorded for clarity right to our module (see Figure 2). All components are mentioned in Figure 2 as green ones regarding to their structure and character.

As can be seen on the Figure 2, all relations can be marked as positive. From the intensity interpretation perspective, they can be marked as medium and large bond (Cohen, 1988). It can be assumed single components create together a model.
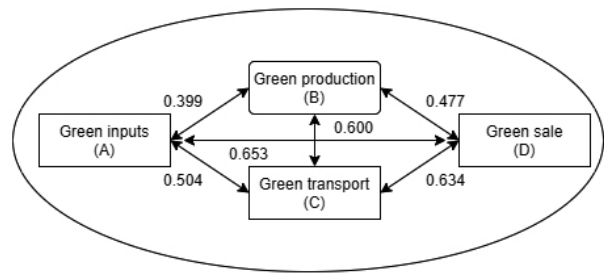

Fig. 2. Correlation in models. Source: Own processing

Results

After creating a model that reaches favourable assumptions on scientific study, we focused on responding a research questions and verification of hypotheses in study results.

RQ1: How to describe a consumer perception in model components context?

We use model that consists of 4 entries while each includes 3 components. Respondents responded on five stepped Likert's scale (1 = does not agree at all; 5 = totally agree). It can be stated that from the single statements perspective the interval of possible results will be from 1 to 5 points. Further, in the case of components the final values will be in interval from 3 to 15 points. We recorded a basic overview of descriptive statistics for single statements as well as for components to Table 4.

Table 4
Selected parameters of descriptive statistics of the examined part of the model

Item	Mean	Std. deviation	Modul	Mean	Std. deviation
A1	2.43	0.998			
A2	2.96	1.383	A	7.76	2.697
A3	2.37	1.177			
B1	2.19	0.873			
B2	2.15	1.070	B	6.56	2.073
B3	2.22	0.978			
C1	2.36	1.315			
C2	2.73	1.712	C	7.82	3.162
C3	2.73	1.346			
D1	2.68	1.321			
D2	2.60	1.293	D	7.78	2.607
D3	2.50	1.209			

Source: Own processing

From Table 4 follows that from the statements perspective all of them are on a below-average level (central value of chosen Likert's scale represents 3 points). Std. deviation indicates that respondents responded in the most consistency way in B3 entry and in the most differently way in C2 entry. All components reach a below-average level (central value of the scale represents 10 points). In general, we recorded the highest below-average value in component C, while it reaches also the highest heterogeneity of responses.

RQ2: How do consumers perceive a green distribution in an introduced model context?

The presented tool which can be characterised as a model contains 12 entries as total. Respondents react to them on Liker's scale (1 = completely disagree, 5 = completely agree). It follows that resulting measured values will occur in interval from 12 to 60 points (a centre of the tool represents 36 points). The average measured sample value ($n = 409$) represents 29.92 points (Std. deviation = 8.512) what can be interpreted as a below-average value. Median represents a value of 30 points and modus 39. The maximal measured value represented 47 points and the minimal of 14 points.

H1: Is there a relation between green distribution perception and respondents' age

In a first step we focus on a descriptive statistic from the chosen variable (age) perspective. As can be seen in Table 5, average values can be marked as differential. We can also see that group of respondents over 65 years of age attached greater importance to green distribution. This group was followed by the one of 15–39 years of age and the last one is group of 40–64 years of age. Equally, we can see that group of respondents over 65 years of age reaches higher consistency within their responses.

It is necessary to say such conclusions can be marked only as orientation. A verification which was proceeded on the basis of one-way ANOVA test with level reliability 95% ($\alpha = 0.05$) is necessary for a hypothesis research. Results are recorded in Table 6.

The Table 6 represents results of one-way ANOVA test while we can say that the hypothesis is accepted ($\alpha > $ Sig.). Robust Tests of Equality of Means brings same results while Welch test represents a value of Sig. 0.000 ($df1 = 2$, $df2 = 71.712$) and Brown–Forsythe test has value of Sig. 0.000 ($df1 = 2$, $df2 = 264.524$). On the basis of mentioned results the acceptance of hypothesis can be confirmed together with the existence of relation between a green distribution perception within our model and age.

H2: Is there a relation between green distribution perception and respondents' sex

From the initial analysis mentioned in the Table 7 we can state, created segments are similar and do not diverge much from the average of all sample from the average's perspective. Alongside, a similarity can be seen also in Std. deviation what indicates a similar dispersity of responses. Both examined segments have same minimal and maximal individual values.

Table 5
Descriptive statistics for age segments

Age	n	Mean	Std. deviation	Std. error	Lower bound	Upper bound	Minimum	Maximum
15–39	177	30.99	8.642	0.650	29.71	32.28	14	47
40–64	210	28.28	8.211	0.567	27.16	29.39	14	47
over 65	22	37.05	4.582	0.977	35.01	39.08	28	45

Source: Own processing

Table 6
Results of ANOVA test for H1

	Sum of squares	df	Mean square	F	Sig.
Between groups	1888.721	2	944.360	13.854	0.000
Within groups	27675.930	406	68.167		
Total	29564.650	408			

Source: Own processing

Table 7
Descriptive statistics for sex segments

Sex	n	Mean	Std. deviation	Std. error	Lower bound	Upper bound	Minimum	Maximum
female	225	30.66	8.573	0.572	29.54	31.79	14	47
male	184	29.02	8.373	0.617	27.80	30.24	14	47

Source: Own processing

Although, they are not a maximal and minimal values of research tool.

Naturally, such results can be considered as orientational. One-way ANOVA test was chosen for hypothesis verification. These results are recorded in Table 8 while a level of reliability was set on 95% ($\alpha = 0.05$). Based on the ANOVA test results (Table 8) the hypothesis can be denied ($\alpha <$ Sig.). Robust Tests of Equality of Means brings same results while we used Welch test where Sig. $= 0.052$ ($df1 = 1$, $df2 = 394, 43$) and Brown–Forsythe test at which Sig. $= 0.052$ ($df1 = 1$, $df2 = 394, 43$). It seems that sex is not a significant factor to influence a green distribution perception within model proposed by ourselves.

Table 8
Results of ANOVA test for H2

	Sum of squares	df	Mean square	F	Sig.
Between groups	272.408	1	272.408	3.785	0.052
Within groups	29292.242	407	71.971		
Total	29564.650	408			

Source: Own processing

RQ3: How consumer segments can be described from their preferences point of view by designed green logistics model?

A model which we proposed contains of 4 distribution fields cooperating among themselves in a significant extent. From the marketing, a science discipline, perspective it is important to know your customers and consumers. We use a cluster analysis for a customer segmentation. Specifically, modern algorithm Two-Step Cluster. Four model components are specified as variables which influenced a cluster analysis; while we standardized values. We did not determine a number of clusters in what we used an autoclustering, specifically the Schwarz's Bayesian criterion (BIC). A range of interval was calculated by Loglikelihood method.

The algorithm created two clusters, at which a quality of cluster analysis is above level of 0.5 what can be interpreted as a good quality. The predictors importance within used variables was following: A $= 0.84$; B $= 0.72$; C $= 1.00$ and D $= 0.99$. We can state from the mentioned that the greatest credit in clustering has the C module, then D, A and B one. At which each of them represents a very high importance. We offer a summarization in Figure 3.

Fig. 3. Result of Cluster analysis with Two-Step algorithm for modules. Source: Own processing

On the basis of the analysis outputs presented on Figure 3, we can state there are two natural clusters. Into first cluster, marked as Cluster 1, we can put 58.4% respondents ($n = 239$) and into second cluster, marked as Cluster 2, we can put 41.6% respondents ($n = 170$). As Figure 3 shows (part Inputs) first cluster can be characterized simply as a cluster with a very low interest in green aspect in distribution, while Cluster 2 reaches average to above-average values. Alongside, we can state clusters are significantly differential.

Discussion

In the presented science article, we introduce a model that priority aim is a research consumers perception to four generic components of green distribution (input, production, transport and sale). They are supported by various theoretical knowledge of experts in given field what indicates a high validity. The model reaches high reliability estimation. It meets all conditions for use in all sides of scientific examination.

It is very hard to create a comparison with other studies since our measurements result in new model. We measured below-average level of sample in all components, as well as below-average level of model (app. 37.33%). We examined an impact of chosen demographic factors to measured values in the model. It can be stated that the age represents a significant factor while a sex does not. Authors Čvirik and Ölveczká (2020a) come to conclusions that the age is important factor in responsible consuming on a sample of Slovak respondents. Reason can be young consumers awareness, higher frequency of item in conditions of development and life young consumers, and others. Alongside, we measured a high value in respondents over 65 years of age what can be explained from the psychology perspective as an effort to leave a legacy or better condition for a life of young generations. Wiping off differences in sex can be explained by an item handling both sexes. Therefore, it is logical there are no significant differences.

We also focused on respondent's segmentation sing cluster analysis. Results indicate two significantly different respondent groups in our sample. While one group (marked as Cluster 1) showed low interest in green distribution, the other (marked as Cluster 2) reached average to above-average values in model. While in the Cluster 1 predominate men in 40–64 years of age, in the Cluster 2 predominate women to 39 years of age. Cluster 1 can be marked as "grey" since it does not have "green thinking" as Cluster 2 that reaches higher values.

It is a signal for businesses that there are consumers who perceive a distribution functionality of business from environmental and ecological awareness aspect. It can be expected regarding to institution pressures as well as consumers (ordinarily now from foreign, but already also at Slovakia) this concept will become important. The distribution in a green logistics shape can be already seen in various businesses. The green distribution in these times represents an innovative competitive advantage that will be appreciated by certain consumer types. But also, it slowly becomes a standard to which institutions and economic practice will have to react.

This study contains certain limits at which we try to minimalize many of them using statistical and mathematical methods. The model created by us collects four fields of distribution, while distribution itself has strong multidimensional character as mentioned. Therefore, we proceed from available scientific publications and sources in creation of the model. It is necessary to state; the method of sample selection represents unrepresentative sample what significantly forbids conclusions generalization. We used two coefficients (Cronbach alpha and McDonald's omega) from the reliability perspective, however, we can speak only about estimated reliability in this level. The study results are interpreted on the basis of authors subjective experiences, at which it would be suitable to verify some estimations in further studies.

Conclusions

We can state in general that presented article's aim is (1) to create a model for examination of green distribution perception, (2) to examine an impact of chosen demographic factors, as well as (3) to examine a consumer segmentation based on model. Therefore, we formed 3 research questions and 2 hypotheses thanks to which we meet the aim in its full range.

Results indicate valid and reliable research tool of model character that is focused on green distribution form consumers perspective. This perspective is crucial due to confirmation of competitive advantage leading to customers satisfaction and loyalty (Rashid et al, 2014), higher growth potential (Corzine and Jackson, 2006) as well as financial success of business (Mangiaracina et al., 2015, Tiwari and Singh, 2011; Dillis and Stone, 2007).

We drew conclusion the age represents a significant factor while sex does not in a sense of examined impacts of demographic factors.

The segmentation, using cluster analysis algorithm Two-Steps on the base of measured values by the model, pointed out the existence of two groups. One of the groups seems to be "green" and is represented mainly by young women, and the second one seems to be "grey", indifferent to green distribution and is represented mainly by men in 3í–64 years of age.

These results can be used in further marketing research as well as in practice. They represent a base for marketing decision in distribution context. The distribution management should work same as all elements of marketing mix together with customers perception. In our case we focused on green distribution which represents an aspect of interest in certain consumer groups. Many researches point out that this

trend will constantly rise. Naturally, it is necessary to take business speciality as well as their aim groups into consideration.

In future researches it would be appropriate to examine other variables either descriptive or psychological or behavioural character. Alongside, we find interesting to create an international comparison that requires measuring on the base of presented model in other countries.

Acknowledgments

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