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*The impact of brand type in terms of the country-of-brand-origin applied by  
the emerging markets companies and consumer ethnocentrism and  
materialism on purchase intentions<sup>i</sup>*

**ABSTRACT**

This paper investigates whether the type of the brand applied by an emerging market company in terms of the country of brand origin (COBO) differentiate the purchase intentions of consumers and whether consumer ethnocentrism and materialism differentiate the relationship between the type of the brand used by an emerging market company in terms of the COBO and the purchase intentions of consumers. A conjoint analysis and the multilevel linear models were applied to answer these questions. According to our study, the type of brand applied by an emerging market company in terms of COBO differentiates consumers' purchase intentions, and consumers' ethnocentrism and materialism differentiate the relationship between the brand type in terms of COBO and the customers' purchase intentions. This study contributes to the existing literature by developing a deeper understanding of the impact of the brand type in terms of the COBO on the customer purchase intentions.

Key words: brand types, COBO, purchase intentions, emerging market companies, international branding, conjoint analysis.

**INTRODUCTION**

Since the 1960s the country of origin (COO) effect has remained one of the key issues in the international marketing and international branding studies (e.g. Richardson, 2008; Cheng et

al., 2005; Whitelock and Fastoso, 2007). COO initially was understood narrowly as a one-dimensional construct and identified with a country of manufacturing (COM) and “made in” label (e.g. Nagashima, 1970). The rise of multi-national sourcing, location of production abroad, and numerous acquisitions in the international market resulting also in the acquisition of foreign brands has presented a difficulty for country-of-origin studies. Researchers have responded by suggesting understanding of the COO as a multidimensional construct and pointing to such COO dimensions as: country of assembly (COA) (Insch and McBride, 1998), country of design (COD) (Chao, 1993), country of parts/key components (COP) (Insch and McBride, 1998), country of corporate ownership (COCO) (Ozsomer and Cavusgil, 1991), and country/culture of brand origin (COBO) or brand origin (BO) (Thakor and Kohli, 1996). Scholars argue that decomposing of COO into these dimensions enables better understanding of the influence of the COO on the brand equity and customers` purchase intentions. Some researchers (e.g. Dinnie, 2004; Brodie and Benson-Rea, 2016) postulate also using rather the brand origin (BO) or country of brand origin/country of brand (COBO/COB) constructs. BO is defined as the “place, region or country where a brand is perceived to belong by its target customers” that “may differ from the location where products carrying the brand name are manufactured, or are perceived by consumers to be manufactured” (Thakor and Kohli, 1996, p. 27-28) while COBO is understood more narrowly as “the country where the brand appears to originate, which reflects the nationality of the brand” (Hamzaoui-Essoussi et al., 2001, p. 973). According to Thakor and Kohli (1996, p. 32), the COO studies are focused primarily on the effects of consumers` perceptions of countries on their evaluation of products and products` purchase intentions, and brands are considered in these research as a cue like e.g. price, that is manipulated independently of “made-in” label. In turn, COBO construct “refers to the integration of origin cues within the brand image” that may be communicated inter alia by the brand name (Thakor and Kohli, 1996, p. 32).

The country of brand origin effect is one of the key factors that is considered by companies while choosing the brands applied in the foreign markets and their international branding strategy (e.g. Hynes et al., 2014; Chailan and Ille, 2015). For many years studies on the COBO effect had been focused on the companies and brands from the developed markets and their perception by consumers from emerging markets (Holt et al., 2004; Lee et al., 2008). Only some studies have taken the perspective of emerging markets firms and their brands although the issue of choosing an appropriate brands in terms of the COBO effect is considered to be particularly important for these companies. COBO effect is in fact one of the key barriers to the foreign expansion of corporates and brands from emerging markets especially in the developed countries (e.g. Magnusson et al., 2008; Usunier, 2011) and it is reflected, inter alia, in the negative perception of brands originating from emerging markets and negative influence on customers` purchase intentions (Hui and Zhou, 2003).

According to Chailan and Ille (2015), emerging markets` companies establishing brand strategies addressing overseas markets face two brand-specific paradoxes: (1) trust vs risk resulting from the contradiction between the trustworthiness that consumers expect from brands and the possible mistrust generated by a brand from emerging market inter alia due to the COBO effect, and (2) local rooting vs globalness referring to the degree of localness or globalness the company wants to spotlight in its brand/brands positioning and communication. Therefore, companies from emerging countries apply in the foreign markets (1) acquired, licensed or created ex-nihilo brands referring to the brand origin from the developed country with a positive image or (2) brands already existing in the home country or new „local go global” brands communicating the origin from the domestic (local) market (e.g. Huang and Hsieh, 2011; Witek-Hajduk, 2011). These types of brands differ however in terms of the compatibility of the country-of-brand-origin communicated by the brand name and the cultural authenticity of the created brand image.

So far no empirical studies have been carried out to verify the influence of the type of a brand used by emerging markets` companies in terms of the COBO on customers` purchase intentions of products labelled these brands and taking into account, among others, the psychographic profile of consumers (materialism and ethnocentrism). Moreover, although several studies have been conducted on the impact of COBO on customer purchase intentions of brands managed by the emerging markets` companies, the results of these studies are not conclusive. Scholars (Touzani et al., 2015) postulate that the phenomenon of COBO effect in the context of the international branding of companies from emerging countries still needs a deeper understanding from a consumer perspective. Moreover, many studies have been conducted on very narrow populations (students) (e.g. Garrett et al., 2017; Zdravkovic, 2013) and little research has been done on the populations representing a wide range of socio-demographic characteristics (Good and Huddleston, 1995).

In view of the identified research gap, the aim of this paper is to answer the following research questions: *1) Does the type of the brand strategy applied by an emerging market company in terms of the COBO differentiate the purchase intentions of consumers?, and 2) Whether consumer ethnocentrism and materialism differentiate the relationship between the type of the brand strategy used by an emerging market company in terms of the COBO and the customers` purchase intentions?*

To answer the research questions we applied a quantitative approach using the conjoint analysis method and the multilevel linear models. The research was conducted on Polish consumers and concerns brands of household products as one of the categories of durable goods.

The remainder of this paper is structured as follows. First, the literature pertinent to the COO and especially to the COBO effect, and to the influence of the COO/COBO on the consumers` purchase intentions of products and brands, including brands from emerging

markets, is summarized. Next, the study method is outlined that is followed by a presentation of the research findings. The paper is summarized with a discussion of the outcomes, and presentation of limitations and suggestions for further studies.

## **BACKGROUND LITERATURE AND STATEMENT OF THE PROBLEM**

Country-of-brand-origin effect is understood as the consumers' response to a brand due to the country they believe the brand originates (Verlegh and Steenkamp, 1999) and considered *inter alia* from a perspective of a means-end-theory which describes consumers' cognitive-motivational structures that affect the consumers decision making (Olson and Reynolds, 2001). According to this theory, consumers' ratio to products and brands is ordered in three interconnected levels: attributes (the product's features and properties), consequences of use (effects of the product's/brand's usage) and personal values (Dibley and Baker, 2001). Therefore, the country-of-brand-origin effect is created on the basis of: (1) cognitive (knowledge about the experience of a given country in the production of specific categories of products/brands), (2) affective (symbolic and emotional value of information about the country-of-brand-origin), and (3) normative (social and personal norms, including ethnocentrism, disidentification, and materialism) mechanisms. In turn, normative variables affect the overall perceptions of products from a specific country and consumers' willingness to buy (Adina et al., 2015).

Companies from emerging markets have to confront the stereotypes, often negative, about the country of origin of their brands (Russell and Russell, 2010) that may affect the brands' equity, including brand awareness and perceived quality (Sanyal and Datta, 2011), consumers' brand perception (Magnusson et al., 2011) and consumers' purchase intentions (Garrett et al., 2017; Katsumata and Song, 2016). Brands of emerging markets' companies are often perceived by the foreign consumers, especially those in the developed countries, as representing lower

quality, and are associated with products that do not meet international standards (Zhou et al., 2010). The negative perception of brands from emerging markets may reduce trust to these brands, and as a result, consumers do not want to pay higher prices for them (Magnusson et al., 2008). However, the results of the studies on the impact of the COBO on the brand image, perceived brand quality, brand awareness and customer purchase intentions of brands from emerging markets are not unequivocal (Diamantopoulos et al., 2011; Samiee, 2010). A few studies confirm that the brand origin from emerging market has a significant and direct negative effect on the perceived quality and a negative indirect effect – through perceived quality – on the perceived value, which, in turn, influences purchase intentions of brands (Hui and Zhou, 2003; Ulgado et al., 2011). In turn, according to Verlegh and Steenkamp (1999), the COBO effect is stronger for brand attitude and perceived quality than for purchase intentions of brands from emerging markets. According to Pecotich and Rosenthal (2001), despite the considerable influence of the COBO on the perceived quality, its influence on the customer purchase intentions is not significant. In turn, according to Jeong et al. (2012) study, the brand origin from emerging market has no impact on purchase intentions. Kim (2006) points out that the brands origin from emerging markets does not have a significantly different effect on the perception of these brands and the customer purchase intentions of various nationalities.

Despite the ambiguous results of studies, it can be stated that associating a brand with an emerging market is often a challenge for companies from these countries and their international branding strategies. That is why for companies from these markets it is so important to choose the type of a brand they use abroad in terms of the expected COBO effect. Usunier (2006, p. 62) underlines that by choosing a brand name, a brand owner may suggest consumers a specific country-of-brand-origin. Referring to the signalling theory, Magnusson et al. (2008) state that emerging markets` companies may reduce the negative impact of the origin from emerging markets on the assessment of their brands using brand names associated by foreign consumers

with a country enjoying a positive image. In this way, the company can reduce the noise caused by the negative country-of-brand-origin effect and increase the effectiveness of its international branding. A lot of studies on the COBO effect refer to the concept of brand origin recognition accuracy (BORA) that is defined by Samiee et al. (2005) as the consumer`s ability to correctly indicate the COBO. This construct refers to the knowledge that consumers store in mind and can reach it when creating assessments and selecting brands. Referring to this concept, Samiee et al (2005) state that consumers have little knowledge about the country of brand origin and their knowledge depends inter alia on socio-economic status, foreign travels in the past, foreign languages knowledge and gender. Moreover, the ability of consumers to recognize the country of brand origin is largely based on the associations of the brand name with the language suggesting the country of brand origin (Samiee et al., 2005). Thakor and Kohli (1996) and Magnusson et al. (2011) emphasize the importance of perceived country of brand origin in comparison to the genuine country of brand origin and state that the actual country, from which the brand originates is almost irrelevant. According to Magnusson et al. (2011), the perceived country-of-brand-origin influences consumer attitudes towards the brand regardless of the degree of accuracy of the recognition of this country.

Therefore, the emerging markets` companies may apply in the foreign countries: (1) brands which directly or indirectly communicate the genuine country-of-brand-origin (Aichner, 2014) or (2) brands which neutralize the unfavourable associations with the genuine country-of-origin e.g. by using brand names that suggest their origin from a country with desired image, often with developed, western countries (Herstein et al., 2014).

Researchers point out also that the country-of-brand-origin is a source of cultural meaning (Alden et al., 1999) and they pay attention to the issue of positioning and image creation of brands from emerging markets, taking into account the so-called cultural authenticity of brands that is defined as the consumer`s perception of whether a brand is culturally genuine or real

(e.g. Southworth and Ha-Brookshire, 2016). Scholars indicate that the positioning and image creation of brands from emerging markets can be oriented towards: (1) reference to the cultural heritage of the genuine country-of-brand-origin (e.g. Chinese brands Shanghai Tang or Tsingtao) (e.g. Southworth and Ha-Brookshire, 2016) or (2) communication of a more modern, western brand image in response to the preferences of global consumers (i.e. Cayla and Eckhardt, 2008), which may be reflected in the application of the so-called „occidental-style” brands, whose names suggest western origin or so-called „local go global” brands, whose image on foreign markets is created e.g. with the usage of western celebrities. Research evidences that cultural authenticity positively affects consumers` willingness to try brands (Southworth and Ha-Brookshire, 2016). Magnusson et al. (2019) argue that brand positioning aimed at emphasizing its country-of-origin stereotypes “serves to reinforce consumers` previously formed schema for that country”.

Ooi i Stober (2008) state that cultural reference of brands from emerging markets to their genuine country-of- origin creates a unique advantage for these brands especially in highly competitive western markets, due to the fact that consumers in these countries rarely accept “imitation” brands and also enables them to improve the image of their countries of origin in the long term (e.g. Ooi and Stober, 2008). On the other hand, creating the image of a western brand in the case of “local go global” brands is considered to be ineffective, as these brands do not offer unique benefits, but only imitate global competitors. (e.g. Ben-Ur and Wang, 2008).

According to Chailan and Ille (2015), taking into account two brand-specific paradoxes facing emerging market companies in the context of their international branding policy, it is trust vs risk, and local rooting vs globalness, these firm may apply in the overseas markets following brands: (1) the well-known international brand acquired (or licensed) by the emerging market company (genuine origin of brand from a developed country and cultural authenticity of image), (2) the „occidental-style” brand created ex-nihilo by the emerging market company

(brand name suggesting not the genuine COBO but the origin from a developed, often western country and “western” image), (3) the local brand already existing in the home country applied by the emerging market company by referring to the success of this brand in the domestic country (“local” brand name and genuine brand origin and cultural authenticity of brand image), and (4) new „local go global” brand created by the emerging market company that is firmly rooted in the domestic environment (“local” brand name and brand origin, and of “western” image). These types of brands represent two approaches to the country-of-brand-origin effect: 1) referring to or suggesting the brand origin from positively perceived foreign, often western, market – brand types (1) and (2), and 2) referring to the origin from the local, emerging market – brand types (3) and (4). Moreover, the distinguished brand types differ in terms of the compatibility of the genuine or suggested country-of-brand-origin and the cultural authenticity of the created brand image.

Although researchers have studied the impact of the COBO on the purchase intentions of brands managed by the emerging markets companies, there is a lack of studies on the impact of the type of brand applied by these firms in the international market in terms of the COBO on the consumer purchase intentions.

From the above discussion, we propose:

**H1:** *The type of brand applied by an emerging market company in terms of the COBO [(1) international/global brand acquired by the company, (2) new „occidental-style” brand, (3) the local brand already existing in the home country, (4) new „local go global” brand] differentiates the purchase intentions of consumers.*

In some studies on the impact of COO/COBO on consumer purchase intentions, researchers consider the moderating influence of consumers` psychographic characteristics such as consumer ethnocentrism (Siemianko et al., 2011) and materialism (Demirbag et al., 2010).

Consumer ethnocentrism is defined as the consumers' conviction about the appropriateness and morality of acquiring products labelled domestic brands, loyalty to them and attributing them the desired features and rejection of products manufactured abroad (Shimp and Sharma, 1987; Zdravkovic, 2013). Ethnocentrism may be also associated with animosity towards products and brands originating from some countries what may be related to the negative stereotypes about these countries (Bayraktar, 2013; Ishii, 2009). According to plenty of studies (Ishii, 2009; Josiassen et al., 2011; Wong et al., 2008; Zdravkovic, 2013), the level of ethnocentrism strongly affects consumer behavior: the higher the level of ethnocentrism, the higher the intentions of buying domestic products and brands, and higher perceived quality of domestic brands (Hamin, 2006). Customers from developed countries are characterized by a high level of ethnocentrism (Zdravkovic, 2013; Zeugner-Roth and Žabkar, 2015). According to Strizhakova et al. (2008), customers in emerging countries are both patriotic about the home country and curious about foreign cultures. Polish consumers are relatively ethnocentric, but it does not translate into the purchase intentions of domestic products (Good and Huddleston, 1995). Some studies indicate that younger consumers are characterized by a lower level of ethnocentrism (Cui et al., 2014). Moreover, age, sex and income do not differentiate the level of consumers' ethnocentrism, but the higher the level of education, the lower the level of ethnocentrism (Good and Huddleston, 1995). Balabanis and Siamagka (2017) state also that consumer ethnocentrism is related to the product category.

Therefore we suggest that:

**H2:** *Consumer ethnocentrism differentiate the relationship between the type of brand applied by an emerging market company in terms of the COBO and the purchase intentions of consumers.*

In turn, materialism is defined as „a cultural system in which material interests are not made subservient to other social goals and material self-interest is preeminent” (Richins and

Dawson, 1992). Materialism is identified with the desire for specific products (Sharma and Sharma, 2011) and attaching the importance to possessing goods (Bayraktar, 2013; Shi et al., 2016 ) and means, how much possession of these goods translates into satisfaction with the consumer`s life (Segev et al., 2015). The authors agree that materialism is an important determinant of consumer behavior (Demirbag et al., 2010), and its development is typical especially for western societies (Segev et al., 2015; Srikant, 2013). Materialism may translate to the improvement of the consumer`s well-being, the belonging to a social group (Srikant, 2013) and is a way of self-expression, especially for young consumers (Shi et al., 2016). According to Shi et al. (2016), COBO is more important for consumers characterized by a high level of materialism. In turn, the effect of materialism as a negative moderator is pronounced especially for high-value products/brands originating from emerging countries (Demirbag et al., 2010).

Therefore we suggest that:

**H3.:** *Materialism differentiate the relationship between the type of brand strategy applied by the emerging market company in terms of the COBO and the purchase intentions of consumers.*

## **METHOD AND SAMPLE CHARACTERISTICS**

In order to verify the hypotheses, we applied a consumer-oriented approach using an experimental quantitative method – conjoint analysis (full-profile design) increasingly used in marketing research (Rao, 2014, p. 1), including those referring to the COO and its dimensions (e.g. COBO) (Wong et al., 2008). The relationships studied are reflected in the research model (figure 1).

Nationwide random sample of 1012 Polish consumers at the age of 18-65 was used in the study. In studies with conjoint analysis method, such a sample size is considered to be sufficient or even large (Orme, 2010, pp. 4-56). The sample characteristics is shown in table 1.

Respondents differ in terms of age, gender, place of residence, level of education, occupational status and income. Almost as many women as men participated in the survey – 507 women (50.1%) and 505 men (49.9%). The sample structure by gender is similar to the representative sample of Poles at the age of 18-65, of which 51.2% are women and 49.8% are men (GUS, 2018). The sample structure by age is also similar to the representative sample of Poles: 11.2% of the survey participants were 18-24 years old (among Poles aged 18-65 there are 11.7% of them), 23.6% – 25-34 years old (among Poles aged 18-65 – 22.8%), 24.7% – 35-44 years old (among Poles aged 18-65 – 23.8%), 19.8% – 45-54 years old (among Poles aged 18-65 – 18.6%) and 20.7% – 55-65 years old (among Poles aged 18-65 – 23.1%) (GUS, 2018). Moreover, 38.1% of them lived in villages, 12.6% – in cities with up to 19000 inhabitants, 9.5% – in cities with 20000 to 49000 inhabitants, 8.9% – in cities with 50000 to 99000 inhabitants, 8.8% – in cities with 100000 to 199000 inhabitants, 9.3% – in cities with 200000 to 499000 inhabitants and 12.8% – in cities with 500000 or more inhabitants. The vast majority of respondents had at least secondary education – 90.9%, with 39.5% having completed secondary education, 5.6% being in the course of studies and 45.8% having master`s degree or equivalent. Only 7.3% of respondents had vocational training and 1.8% – basic education. More than two thirds of respondents worked professionally. Among the surveyed consumers, 66.5% had permanent employment and 6.4% worked casually. Another 8.1% were unemployed, 12.5% – pensioners and 6.5% were studying. From amongst the consumers we surveyed, most people had monthly income per 1 person at the level of 1000-1999 PLN (39.4% of respondents). Slightly fewer, i.e. 33.4%, had 2000-3999 PLN. Subsequently, the respondents had the following amounts: 500-999 PLN – 17.4%, 4000 PLN and more – 6.7%. The least numerous group (3.1% of all) had 499 PLN and less at their disposal per 1 person per month.

The product category chosen for this study was consumer durable goods, in particular – washing machines. This product category of household appliances has been selected because:

(1) emerging markets companies have a growing market share in this industry (Applia, 2018) and (2) consumers usually have a broad familiarity with durable goods brands (Magnusson et al., 2011) and washing machines belongs to the category of high-involvement products in which the COO effect is very likely to occur (Wong et al., 2008) and is stronger compared to low-involvement products (Dinnie, 2004). Each of the studied products was described with following attributes: brand, price, country of origin („made in”), spinning efficiency and energy rating, as the last two characteristics are commonly used by brand owners to describe washing machines they offer. Based on previous individual in-depth interviews with managers of 9 companies from emerging markets operating on the household appliances market in Poland, we included in the study brands representing each brand type in terms of COBO identified by Chailan and Ille (2015): (1) international/global brand acquired by a company – Sharp (originating from Japan, obtained under a licence agreement by a Turkish company), (2) „occidental-style” brands: Amica (brand with western name, originating from Poland) and Beko (brand with neutral name originating from Turkey), (3) local brand already existing in the home country – Gorenje (originating from Slovenia, acquired by a Chinese company), (4) new – „local go global” brand – Samsung (originating from South Korea). Moreover, as it is necessary due to the adopted in this study way of variables` coding described hereafter, Bosch (global brand of western origin) served as a point of reference.

Conjoint analysis allows to track and predict consumer behavior, including buyers preferences and purchase intentions (Orme, 2010, pp. 21-27; Shepherd and Zacharakis, 2018). Moreover, it reflects consumers` choices in a set of choice situations taking into account multiple characteristics of the product (Rao, 2014, p. 2). In conjoint analysis, the consumer`s total evaluation of the product profile is decomposed into part worth utilities – contributions of each attribute (Rao, 2014, pp. 3-37). The chosen experimental full-profile conjoint analysis is justified and recommended to examine the effects of independent variables at various levels

and allows measuring interactions between variables (Orme, 2010, p. 41). In this study, five attributes of product were selected and assigned a total of 15 levels which translates into a set of 216 possible product profiles (Orme, 2010, p. 46), whereby the number of levels for a single attribute was not the same for each attribute (Hensher et al., 2005, p. 107). Although the number of attributes is within the scope of recommendations of other authors for this method, the number of obtainable profiles was significantly higher than would be possible to be evaluated by a single respondent (Orme, 2010, p. 50). For this reason, as recommended in the literature (Hensher et al., 2005), an orthogonal factorial design was applied. By implementing the ORTHOPLAN procedure (IBM SPSS Statistics: version 24), 27 product profiles were obtained for assessment by each respondent (appendix 1). Each profile included verbal descriptions and a visualisation of a washing machine (sample profile – appendix 2).

The dependent variable was purchase intention of washing machines. According to Ajzen (2011) and Wu et al. (2011), purchase intention is a good indicator of future consumer behavior, e.g. actual purchase, and is commonly used in conjoint studies (Aruan et al., 2018; Chaparro-Peláez et al., 2016).

Each of respondents rated 27 product profiles on a scale of 1-10 (Malhotra and Birks, 2007, pp. 351-352), where 1 – „I would definitely not buy”, 10 – „I would definitely buy”. The CAWI technique (Computer-Assisted Web Interview) was used to collect the data due to the number of variables and product visualizations included in the study (Sagan, 2004, p. 108). Such an approach is commonly used in scientific research (Hansen and Pedersen, 2012).

Additionally, respondents were asked multiple questions concerning their attitudes towards ethnocentrism and materialism. To measure consumer ethnocentrism, we used the original 17-item CETSCALE with a 7-point Likert scale by Shimp and Sharma (1987) that has been commonly used in the COO studies (Cui et al., 2014; Wang et al., 2008, p. 462). To explore the materialism, we applied the material values scale by Richins and Dawson (1992) using

original 18-item scale and a 7-point Likert scale (instead of original 5-point Likert scale not to confuse respondents). As in other research (Hamin and Elliott, 2006; Wong et al., 2008), the mean scores of ethnocentrism and materialism were included in the statistical models.

To verify the hypothesis H1, we applied the procedure of conjoint analysis available through command syntax in IBM SPSS Statistics (version 24). Also, the impact of interactions between variables (brand and price; brand and „made in”) on the purchase intentions was of interest. However, the interactions cannot be included in the conjoint analysis procedure, as well as ethnocentrism and materialism as moderating variables. In order to assess these relations, in the second stage we applied the multilevel linear models using centred variable for „price” and effect coding for other variables (appendix 3), employing maximum likelihood method (Field, 2009, pp. 725-778). In order to test the fit of the multilevel linear models, we examined information criteria (AIC, AICC, CAIC, BIC) and Pearson`s linear correlation coefficients between estimated and surveyed total utility values (Field, 2009, p. 774). For the conjoint procedure, we used Pearson`s linear correlation coefficient and Kendall`s tau (Klein et al., 2010).

As recommended in the literature (e.g. Field, 2009, p. 737), to verify the hypotheses H2 and H3 and examine the interactions between various variables and moderating effect of ethnocentrism and materialism on purchase intentions of household appliances labelled different brand types in terms of COBO, first the multilevel linear model for the fixed effects was estimated, then the interactions between the variables (brand and price; brand and „made in”) were entered into the model, and then a random intercept and random regression coefficients were introduced. At the end, interactions between ethnocentrism and brand, and materialism and brand were introduced. Finally, the random model of fixed effects with interactions between variables (brand and price; brand and „made in”), including random

intercept and random regression coefficients, with interactions between brand and ethnocentrism, and brand and materialism, was used to verify the hypotheses.

## FINDINGS

As mentioned above, in the first stage the procedure of conjoint analysis was applied. Within this procedure, relative importance of attributes was estimated, presenting the percentage contribution of a given attribute to the overall utility (Rao, 2014, pp. 3-37). On the basis of these estimations (table 2), the most important factors influencing purchase intentions of washing machines are the following: brand (44.0%), “made in” (19.3%), price (17.6%), energy rating (11.0%) and spinning efficiency (7.3%).

Based on the estimates for part-worth utilities, it is possible to observe the importance of various product attributes and their levels in respondents` purchase intentions (Rao, 2014, pp. 2-37). Within a given attribute, the level with the highest score (positive value) is preferred. Based on these estimates (table 3), the highest utility have the following brand types in terms of COBO: global brand of western origin – Bosch (0.671), new „local go global” brand – Samsung (0.449) and „occidental-style” brand with neutral name – Beko (0.026). Other types of brands have negative part-worth utilities: „occidental-style” brand with western name – Amica (-0.093), international/global brand acquired by an emerging market company – Sharp (-0.359) and local brand already existing in the home country – Gorenje (-0.694). This means that the most preferred by respondents brand is the global one of western origin (Bosch), whilst the local brand already existing in the home country (Gorenje) is the least preferred one. Taking into account the „made in” effect, the consumers surveyed strongly prefer products manufactured within the European Union (EU) (0.419), but are not in favour of those produced in Turkey (-0.045) and even more so in China (-0.375). In terms of price, respondents definitely prefer products at the lowest price (-0.453) compared to those at the highest relative price

(-1.360). Moreover, they prefer washing machines with high energy rating (0.262) and high spinning efficiency (0.043).

In order to assess the degree of fit of the model estimated by the conjoint procedure to the empirical data, Pearson's linear correlation coefficients and Kendall rank correlation coefficient were estimated (table 4). On their basis, the model can be considered as very well fitted to the empirical data with Pearson's R at the level of 0.993 and Kendall's tau equal to 0.937. This means that the selected set of attributes describing the examined products allows for a good description of the formulation of the respondents' purchase intentions.

According to the initial model of fixed effects (table 5), the estimates of part-worth utilities of this model and conjoint procedure very slightly differ. The reason for this is that multilevel linear models are estimated in a different way than within the conjoint procedure. They calculate the values of the dependent variable based on assumed values of the independent variables and their coefficients (Mooi, 2014, p. 216). However, the direction and strength of the dependencies of the individual variables describing products, are convergent, so the interpretation of the model estimates is similar to the results for the conjoint procedure discussed above. Although according to the fixed effects model, „occidental-style” brand with neutral name (Beko) is statistically insignificant ( $p=0.471$ ), it was decided not to remove this variable, because it is the subject of hypotheses. This brand is also of little importance according to the conjoint procedure. Moreover, it has been verified that the elimination of this variable from multilevel linear models does not positively affect their overall quality.

Subsequently, further multilevel linear models were estimated and compared based on information criteria (AIC, AICC, CAIC, BIC) and Pearson's R ( $r$ ) (table 6). The comparison of Pearson's R coefficients for subsequent models shows that it was justified to add to the model of fixed effects ( $r=0.240$ ) the interaction between variables (brand and price; brand and „made in”), to randomize the intercept and regression coefficients, as well as to add interactions

between brand and ethnocentrism, and brand and materialism ( $r=0.915$ ). However, due to the fact that variables describing interactions between following types of brands: new „local go global” brand (Samsung), „occidental-style” brand with neutral name (Beko), international/global brand acquired by emerging market company (Sharp) and local brand already existing in the home country (Gorenje), and „made in China” were redundant even for the model of fixed effects with interactions between all brands and price, and between all brands and „made in”, these interactions were excluded from the final model (Field, 2009, pp. 241-242), without affecting its quality. As a consequence, the Pearson`s R of the model slightly increased to the level of 0.242 (compared to  $r=0.241$  for the previous model). Taking into account the information criteria, it can be noted that their values have slightly increased in some subsequent models. Nevertheless, these values are significantly lower for the model adopted in the final stage than for the initial model of fixed effects, which is a positive indicator of the finally applied model.

After all, in order to verify the hypotheses H1, the model of fixed effects with interactions between variables (all examined brands and price; all examined brands and „made in EU”; Amica and „made in China”), including random intercept and random coefficients, with interactions between all studied brands and ethnocentrism, and all studied brands and materialism was applied (table 7). According to the estimates of fixed effects, the following main effects have a statistically significant (at any level of significance) impact on the purchase intentions of washing machines: local brand already existing in the home country (Gorenje) and international/global brand acquired by an emerging market company (Sharp), price, „made in EU” and „made in China”, energy rating, and consumer materialism. If a product is branded with a local brand already existing in the home country (Gorenje), purchase intentions decrease on average by 0.829 points compared to the global brand of western origin (Bosch) and if it is branded with international/global brand acquired by an emerging market company (Sharp) – by

0.618 points. The fact that the product is manufactured in the EU increases purchase intentions (an increase of 0.383 points), and „made in China” translates into a decrease in these intentions of 0.333 points. Moreover, the results show that respondents prefer higher energy ratings for washing machines (increase in purchase intention by 0.194 points).

Given the interactions between „made in” and examined brands, interactions for: „occidental-style” brand with western name (Amica) and „made and EU”, international/global brand acquired by an emerging market company (Sharp) and „made in EU”, „occidental-style” brand with neutral name (Beko) and „made in EU” and „occidental-style” brand with western name (Amica) and „made in China” are statistically significant. This means that respondents declare higher purchase intentions in the case of products labelled „occidental-style” brands – Amica (with western name) and Beko (with neutral name) manufactured in the EU (increase in intentions by 0.238 and 0.129 points, respectively) than the purchase intentions resulting from the impact of the brand and „made in” separately, and in the case of international/global brand acquired by emerging market company (Sharp) – outside the EU (if the product is made in the EU, these intentions decrease by 0.106 points). In the case of the „occidental-style” brand with western name (Amica), the production of washing machines in China causes the intention to purchase them to fall by an average of 0.188 points in comparison with the separate impact of both of these variables on the purchase intentions.

In the case of Polish consumers, interactions between ethnocentrism and materialism are statistically significant (at any level of significance) for „occidental-style” brand with western name (Amica). The ethnocentric attitude causes an average increase in purchase intentions of that brand by 0.136 points, while the materialism causes them to decrease by 0.213 points on average. Moreover, at the level of statistical significance  $p=0.05$ , the interaction between the new „local go global” brand (Samsung) and ethnocentrism should also be considered as significant. The ethnocentrism of Polish respondents translates on average into a decrease of

0.058 points in the intention to buy washing machines labelled with Samsung brand. With a significance level of 0.1, the discussed above interaction between brand and materialism is also significant. Among respondents with a materialistic nature, the purchase intentions of new „local go global” brand (Samsung) are on average 0.101 points higher than among those that do not have such a nature.

Table 8 presents the estimates of covariance parameters for the analysed model. They show that the values of variance of random variables and variance of parameters for independent variables differ between respondents. This allows to assess whether the strength of the impact of independent variables on purchase intentions differs between respondents. This means that the values of variance parameters differ significantly between the respondents for all the analysed variables.

According to the presented findings, all three hypotheses were supported in this study. The type of brand strategy applied by an emerging market company in terms of the COBO differentiates consumers` purchase intentions (H 1). The most preferred brand is the new „local go global” brand (Samsung), and the least preferred – local brand already existing in the home country (Gorenje). With the increase in ethnocentrism among Polish respondents, the intentions to purchase products labelled „occidental-style” brand originating from Poland (Amica) increase, and in case of the foreign brand – new „local go global” brand (Samsung), the purchase intentions decrease (H2). In the case of materialism, it has been shown that with its growth, the purchase intentions of products labelled foreign new „local go global” brand (Samsung) increase, and when labelled domestic „occidental-style” (Amica) – decrease (H 3).

## **CONCLUSIONS, LIMITATIONS AND FURTHER RESEARCH**

The study indicates that the most important factor influencing purchase intentions of washing machines is the brand and it confirms the conclusions of other studies (Neij et al.,

2009). The conjoint procedure estimates show that the factors influencing the purchase intentions of the examined product category are as follows: brand (44.0%), „made in” (19.3%), price (17.6%), energy rating (11.0%) and spinning efficiency (7.3%). Among the studied brands of washing machines, the respondents prefer the most: global brand of genuine western origin (Bosch), new „local go global” brand (Samsung) and „occidental-style” brand with western name (Beko). The strongest preference for the global brand of genuine western origin (Bosch) can be explained by the fact that Germany is associated with the high quality (Kim, 2006). Having regard to the conclusions of Ben-Ur and Wang (2008) on the lack of effectiveness of the strategy of applying “local go global” and “occidental-style” brands which communicate modern/western image (Cayla and Eckhardt, 2008), in the case of new “local go global” brand – Samsung, it should be stressed that nowadays it is a global brand with a positive image and that many consumers do not associate it with its country of origin (Magnusson et al., 2011). Beko, although it is an „occidental-style” brand, can also be somehow considered as a global brand, especially as its owner has recently established a marketing alliance with the FC Barcelona football club and intensively communicates Beko brand as a global one. The least preferred brands are, in turn, the following: local brand already existing in the home country (Gorenje), international/global brand acquired by an emerging market company (Sharp) and „occidental-style” brand with western name (Amica). Although according to Southworth and Ha-Brookshire (2016), cultural authenticity positively effects consumers` willingness to try brands, in this survey, the least preferred brands included also Gorenje - brand that refers to the cultural heritage of the genuine country-of-brand-origin. The Gorenje brand, whose name comes from the name of the village where it was founded, immediately evokes among Polish consumers associations with the country of this brand origin – Slovenia, which is an emerging market. This fact, alike as the origin of the domestic brand – Amica, an emerging market of origin is usually associated with a lower quality level compared to those from developed

countries (Zhou et al., 2010), which may be the reason for these low purchase intentions. In the case of Sharp (originating in developed country – Japan), low purchase intentions among Polish consumers can probably be explained by the fact that the brand was perceived very positively a decade or two decades ago, but in recent years its image seems to have weakened, which is, inter alia, reflected in its market shares between 2008-2016 (Statista, 2017).

In addition to the brand, „made in” is also an important determinant of purchase intentions, which is emphasized by many authors (Wang and Yang, 2008; Xie et al., 2015). Respondents surveyed significantly preferred products manufactured in the European Union much more than those produced in Turkey or China (relative preferences towards China were by far the lowest). This finding is consistent with the results of previous studies (Diamantopoulos et al., 2011) and confirms the conclusions of Demirbag et al. (2010) research that the consumers` perception of brands from developed countries is better compared to those from emerging markets which is also reflected in their purchase intentions. In the case of price, respondents prefer washing machines at the lowest relative price. As indicated inter alia by Mowen (2003), the price is one of the key determinants of purchase intentions. What is more, respondents prefer washing machines with high energy rating and high spinning efficiency. It can be explained by the fact that more and more consumers are likely to purchase energy-efficient products (Daziano and Chiew, 2012) and so called „eco-labels” (Rashid and Perlis, 2009).

In this study the interactions between variables in multilevel linear models were also taken into account. The assessment of the impact of interactions on the dependent variable shows that respondents prefer washing machines manufactured in European Union for „occidental-style” brands – Amica (western name), Beko (neutral name) and international/global brand acquired by an emerging market company (Sharp). Moreover, in the case of domestic brand – Amica, the respondents do not have positive preferences towards products manufactured in China. It

should be considered here that China still does not have a good reputation as a COM (Yunus and Rashid, 2016) and that such stereotypes may adversely affect consumers` perception of products and brands originating from countries with negative stereotypes (Garret et al., 2017; Magnusson et al., 2011). Interestingly enough, in the case of new „local go global” brand – Samsung, interactions between brand and „made in” (whether it is EU or China) are statistically insignificant. Maybe it is due to the fact that some consumers may misidentify the COO (Cakici and Shukla, 2017; Magnusson et al., 2011) and may be aware of it, so they may not attach too much attention to the country of manufacturing. Moreover, the COM may not be so important for consumers in the case of global brands which they simply trust (Xie et al., 2015).

On the basis of multilevel linear models, ethnocentrism and materialism are also considered as variables that have a significant impact on purchase intentions and it confirms the conclusions from earlier studies (Demirbag et al., 2010; Li et al., 2012). According to the estimated interactions, Polish respondents with an ethnocentric attitude are more inclined to buy washing machines branded with domestic brand (Amica). On the other hand, consumers with low ethnocentrism are significantly less inclined to buy foreign brand (e.g. Samsung – new „local go global” brand).

As far as materialism of Polish consumers is concerned, the variable describing the relationship between materialism and domestic „occidental-style” brand (Amica) shows that consumers with materialistic attitudes are less inclined to buy this brand. Lower preferences for brands from emerging markets (e.g. Amica) by materialistic consumers (Vohra and Gupta, 2017) that translates into lower purchases intentions (Ulgado et al., 2011) may result from the perception of these products as of lower quality (Zhou et al., 2010). In turn, consumers who display a high level of materialism are much more inclined to reach for products labelled foreign new „local go global” brand (Samsung), maybe because it is perceived as a brand of high quality (Magnusson et al., 2011).

This study contributes to the existing body of literature by developing a deeper understanding of consumer behavior in terms of the COO effect, especially customers from Poland as one of the emerging markets. As Antonides and van Raaij (2003, pp. 21-34) point out, consumer behavior changes over time and there is a need to update knowledge about it. The paper also complements a literature referring to the international branding of emerging market companies, including these from Central and Eastern Europe.

Although quantitative surveys have been carried out on a representative sample of Poles, one should be cautious about generalising the study findings to other countries. As stressed by many authors (e.g. Sharma, 2011), the behavior of consumers from different countries may differ, *inter alia*, because of the impact of various dimensions of COO (e.g. „made in” effect) on their purchase intentions. In this study only two dimension of COO construct were included (COBO and COM – „made in”). Moreover, the study is limited to one industry (household appliances). Researchers indicate that consumer behavior, as well as factors influencing purchase intentions, may vary between product categories (Dinnie, 2004). Moreover, although the study includes a few brands originating from emerging markets (Poland, Slovenia, South Korea and Turkey), and two from the developed countries (Germany and Japan), the number of studied countries is limited.

With regard to the recommendations for future research, it would be worthwhile to study purchase intentions of consumers from other countries (both emerging and developed) and compare the results with this study. It would also be valuable to include brands from other markets than those included in this study, as well as other dimensions of COO construct. Moreover, in future research other industries could be included in order to compare the impact of various factors determining purchase intentions depending within on a given product category.

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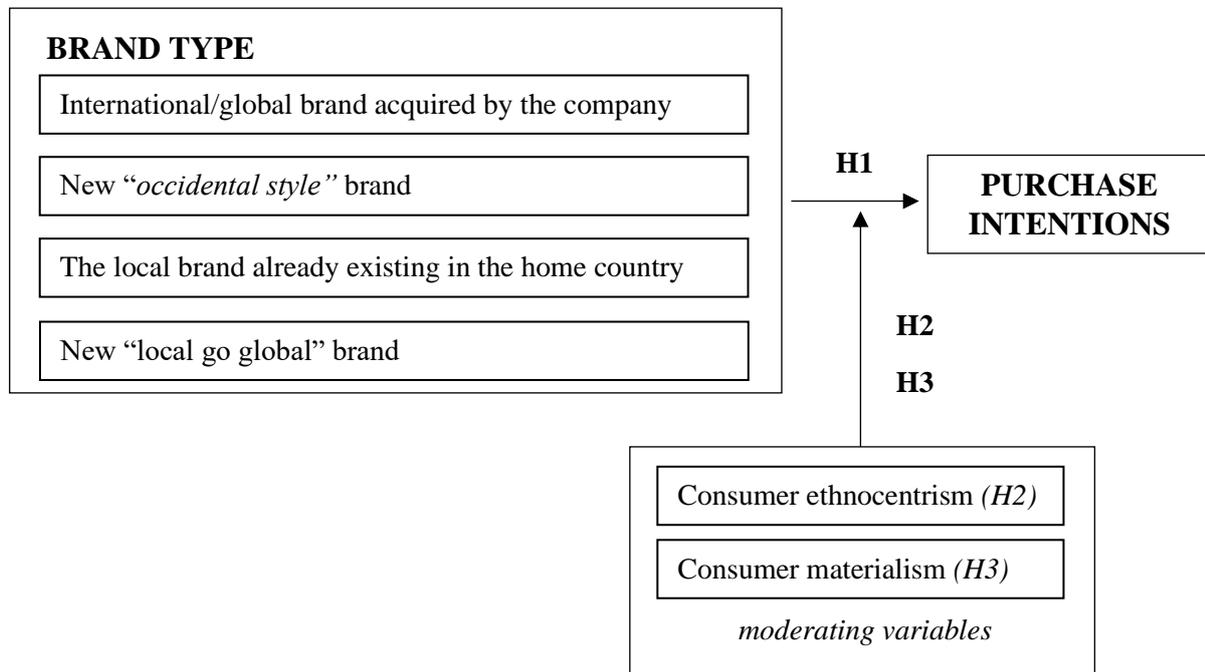
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## FIGURES

**Figure 1. Research model**



Source: own elaboration.

## TABLES

**Table 1. Sample characteristics**

Respondents` characteristics		Frequency (n = 1012)	Percent
Gender	Female	507	50.1
	Male	505	49.9
Age (years)	18-24	113	11.2
	25-34	239	23.6
	35-44	251	24.7
	45-54	200	19.8
	55-65	209	20.7
Size of the place of residence (thousands inhabitants)	Village	386	38.1
	Up to 19	128	12.6
	20-49	96	9.5
	50-99	90	8.9
	100-199	89	8.8
	200-499	93	9.3
	500 and more	130	12.8
Educational level	Basic education	18	1.8
	Vocational training	74	7.3
	Secondary education	400	39.5
	In the course of studies	57	5.6
	Master`s degree or equivalent	463	45.8

Occupational status	Permanent employment	672	66.5
	Casual work	65	6.4
	Unemployed	82	8.1
	Pensioner	127	12.5
	Student	66	6.5
Monthly income per 1 person in PLN	499 and less	31	3.1
	500-999	176	17.4
	1000-1999	399	39.4
	2000-3999	338	33.4
	4000 and more	68	6.7

Source: own elaboration with basis in SPSS analysis.

**Table 2. Relative importance of attributes – conjoint analysis**

Attribute	Type of data	Relative importance ( <i>percent</i> ) – averaged importance score	Overall rang
Brand	Discrete	44.8	1
Made in	Discrete	19.3	2
Price	Linear	17.6	3
Energy rating	Discrete	11.0	4
Spinning efficiency	Discrete	7.3	5

Source: own elaboration with basis in SPSS analysis.

**Table 3. Part worth utilities – conjoint analysis**

Utilities			
		Utility estimate	Std. error
Brand	Gorenje	-0.694	0.042
	Amica	-0.093	0.042
	Sharp	-0.359	0.042
	Beko	0.026	0.055
	Samsung	0.449	0.055
	Bosch	0.671	0.055
Made in	EU	0.419	0.029
	China	-0.375	0.029
	Turkey	-0.045	0.029
Price	849 PLN	-0.453	0.025
	1349 PLN	-0.907	0.050
	1849 PLN	-1.360	0.076
Energy rating	A+	-0.262	0.022
	A+++	0.262	0.022
Spinning efficiency	1000 rpm	-0.043	0.022
	1400 rpm	0.043	0.022
(Constant)		6.254	0.056

Source: own elaboration with basis in SPSS analysis.

**Table 4. Pearson`s linear correlation coefficients and Kendall rank correlation coefficient – conjoint analysis**

Correlations <sup>a</sup>		
	Value	Sig.
Pearson`s R	0.993	0.000

Kendall`s tau	0.937	0.000
a. Correlations between observed and estimated preferences		

Source: own elaboration with basis in SPSS analysis.

**Table 5. Multilevel linear model of fixed effects**

Estimates of fixed effects <sup>a</sup>			
Parameter	Estimate	Std. Error	Sig.
Intercept	5.359	0.019	0.000
Gorenje	-0.661	0.034	0.000
Amica	-0.103	0.034	0.003
Sharp	-0.345	0.034	0.000
Beko	0.032	0.044	0.471
Samsung	0.433	0.044	0.000
Price	-0.442	0.020	0.000
Made in EU	0.405	0.024	0.000
Made in China	-0.366	0.024	0.000
Spinning efficiency	-0.036	0.018	0.043
Energy rating	-0.255	0.018	0.000

Source: own elaboration with basis in SPSS analysis.

**Table 6. Multilevel linear models` fit**

Model	AIC	AICC	CAIC	BIC	Pearson`s R
Model of fixed effects	132788.417	132788.429	132899.003	132887.003	0.240
Model of fixed effects with interactions between all brands and price	132785.824	132785.846	132942.488	132925.488	0.241
Model of fixed effects with interactions between all brands and price and between all brands and „made in”	132786.316	132786.316	132998.273	132975.273	0.241
Model of fixed effects with interactions between all brands and price and between all brands and „made in EU” and between Amica and „made in China”	132786.316	132786.357	132998.273	132975.273	0.242
Random model of fixed effects with interactions between variables (all brands and price; all brands and „made in EU” and between Amica and „made in China”), including random intercept and random regression coefficients, with interaction between all brands and ethnocentrism, and all brands and materialism	113869.475	113869.634	114293.389	114247.389	0.915

\*\* Correlation is significant at the 0.01 level (2-tailed)

Source: own elaboration with basis in SPSS analysis.

**Table 7. Estimates of fixed effects – multilevel linear model of fixed effects with interactions between variables (all examined brands and price; all examined brands and „made in EU”; Amica and „made in China”), including random intercept and random coefficients, with interactions between all brands and ethnocentrism, and all brands and materialism**

<b>Estimates of fixed effects<sup>a</sup></b>			
<b>Parameter</b>	<b>Estimate</b>	<b>Std. error</b>	<b>Sig.</b>
Intercept	2.577	0.305	0.000
Gorenje	-0.829	0.214	0.000
Amica	0.233	0.225	0.300
Sharp	-0.618	0.185	0.000
Beko	0.301	0.221	0.174
Samsung	0.247	0.213	0.248
Price	-0.403	0.039	0.000
Made in EU	0.383	0.047	0.000
Made in China	-0.333	0.041	0.000
Spinning efficiency	-0.017	0.027	0.527
Energy rating	-0.194	0.025	0.000
Interaction between Gorenje and price	0.008	0.056	0.876
Interaction between Amica and price	-0.003	0.062	0.958
Interaction between Sharp and price	-0.041	0.058	0.473
Interaction between Beko and price	-0.007	0.063	0.903
Interaction between Samsung and price	-0.076	0.058	0.193
Interaction between Gorenje and „made in EU”	-0.029	0.027	0.287
Interaction between Amica and „made in EU”	0.238	0.051	0.000
Interaction between Sharp and „made in EU”	-0.106	0.033	0.000
Interaction between Beko and „made in EU”	0.129	0.036	0.000
Interaction between Samsung and „made in EU”	0.015	0.036	0.669
Interaction between Amica and „made in China”	-0.188	0.042	0.000
Ethnocentrism	0.048	0.041	0.250
Materialism	0.613	0.079	0.000
Interaction between Gorenje and ethnocentrism	0.047	0.029	0.104
Interaction between Amica and ethnocentrism	0.136	0.030	0.000
Interaction between Sharp and ethnocentrism	-0.011	0.025	0.640
Interaction between Beko and ethnocentrism	-0.033	0.030	0.273
Interaction between Samsung and ethnocentrism	-0.058	0.029	0.046
Interaction between Gorenje and materialism	-0.006	0.055	0.904
Interaction between Amica and materialism	-0.213	0.058	0.000
Interaction between Sharp and materialism	0.076	0.048	0.112
Interaction between Beko and materialism	-0.032	0.057	0.578
Interaction between Samsung and materialism	0.101	0.055	0.069

Source: own elaboration with basis in SPSS analysis.

**Table 8. Estimates of covariance parameters – multilevel linear model of fixed effects with interactions between variables (all examined brands and price; all examined brands and „made in EU”; Amica and „made in China”), including random intercept and random coefficients, with interactions between all brands and ethnocentrism, and all brands and materialism**

<b>Estimates of covariance parameters<sup>a</sup></b>			
<b>Parametr</b>	<b>Estimate</b>	<b>Std. error</b>	<b>Sig.</b>
Residual	1.947	0.022	0.000
Var. Intercept	2.974	0.136	0.000
Var. Gorenje	1.210	0.067	0.000
Var. Amica	1.368	0.074	0.000
Var. Sharp	0.832	0.050	0.000
Var. Beko	1.102	0.071	0.000
Var. Samsung	0.990	0.066	0.000
Var. Price	0.757	0.039	0.000
Var. Made in EU	0.326	0.021	0.000
Var. Made in China	0.314	0.021	0.000
Var. Spinning efficiency	0.041	0.005	0.000
Var. Energy rating	0.261	0.015	0.000

a. Dependent variable: purchase intentions

Source: own elaboration with basis in SPSS analysis.

## APPENDIXES

### Appendix 1. Product profiles

<b>Brand</b>	<b>Price</b>	<b>Made in</b>	<b>Spinning efficiency</b>	<b>Energy class</b>	<b>Profile no.</b>
Gorenje	1349 PLN	China	1000 rpm	A+++	1
Bosch	1849 PLN	EU	1000 rpm	A+	2
Amica	1849 PLN	Turkey	1400 rpm	A+	3
Gorenje	1849 PLN	China	1000 rpm	A+++	4
Sharp	1349 PLN	EU	1400 rpm	A+	5
Gorenje	849 PLN	EU	1000 rpm	A+	6
Beko	1849 PLN	EU	1000 rpm	A+	7
Amica	849 PLN	Turkey	1000 rpm	A+	8
Sharp	1849 PLN	Turkey	1400 rpm	A+++	9
Beko	1349 PLN	Turkey	1000 rpm	A+	10
Amica	1349 PLN	EU	1400 rpm	A+++	11
Samsung	1849 PLN	EU	1000 rpm	A+++	12
Bosch	849 PLN	China	1400 rpm	A+	13
Sharp	1349 PLN	China	1000 rpm	A+	14
Sharp	1849 PLN	China	1000 rpm	A+	15
Gorenje	1849 PLN	Turkey	1400 rpm	A+	16
Gorenje	1349 PLN	EU	1400 rpm	A+	17
Samsung	849 PLN	China	1400 rpm	A+	18
Sharp	849 PLN	Turkey	1000 rpm	A+++	19
Bosch	1349 PLN	Turkey	1000 rpm	A+++	20
Amica	849 PLN	EU	1000 rpm	A+++	21
Beko	849 PLN	China	1400 rpm	A+++	22
Samsung	1349 PLN	Turkey	1000 rpm	A+	23
Amica	1349 PLN	China	1000 rpm	A+	24

Sharp	849 PLN	EU	1000 rpm	A+	25
Gorenje	849 PLN	Turkey	1000 rpm	A+	26
Amica	1849 PLN	China	1000 rpm	A+	27

Source: own elaboration with basis in SPSS analysis.

## Appendix 2. Sample product profile



Source: own elaboration.

## Appendix 3. Product attributes (variables), variable values and coding

Product attributes (variables)	Variable values	Coding
Gorenje	Gorenje	1.00
	Bosch	-1.00
	Other brands	0.00
Amica	Amica	1.00
	Bosch	-1.00
	Other brands	0.00
Sharp	Sharp	1.00
	Bosch	-1.00
	Other brands	0.00
Beko	Beko	1.00
	Bosch	-1.00
	Other brands	0.00
Samsung	Samsung	1.00
	Bosch	-1.00
	Other brands	0.00
Price	849 PLN	-1.00
	1349 PLN	0.00
	1849 PLN	1.00
Made in EU	EU	1.00
	Turkey	-1.00
	China	0.00
Made in China	China	1.00
	Turkey	-1.00
	EU	0.00
Spinning efficiency	1000 rpm	1.00
	1000 rpm	-1.00

Energy rating	A+	1.00
	A+++	-1.00

Source: own elaboration.

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