The country of origin of services and consumers as the determinants of purchase intentions in medical tourism*

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Abstract

The aim of the study is to find the determinants of the decision to purchase medical services in other countries. The following hypothesis is tested: the image of the country of origin, the power of the country and the origin of the consumer influence the consumer's intentions to purchase medical services. An international comparison has been carried out, in which 264 respondents from Poland, Germany and Lithuania have participated. The data have been collected with the use of a questionnaire form developed by the authors, and they have been analysed with a mixed regression analysis. The results show that the readiness to purchase medical services differs, depending on the country of origin of services, the power of the country and the origin of the consumer. The results of the research can be applied in business practice and in the strategies developed by institutions shaping the image of the country and positioning it in the international context.

Keywords: country-of-origin effect, dimensions of the country-of-origin, medical services, consumer's origin, marketing of services
JEL classification: M31, F19, Z33

Introduction

At the end of the 20th century, the General Agreement on Trade in Services was signed under the auspices of the World Trade Organization, and it resulted in rapid growth in the international exchange of medical services which is now often referred to as medical tourism. Its development has been also affected by a change in the structure of international exchange of medical services (Lautier

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2014). That change consists in the growing significance of export from developing and emerging countries, which offer competitive prices, and in the improving quality of medical care, as well as the increasing demand for this type of services, communicated by the citizens of those countries, who have become more and more well-off.

Despite the fact that some significant changes taking place in the market of medical tourism attract scientists' growing interest, that market still comes as insufficiently analysed and described. Most analyses are mostly focused on the characteristics of the market and entities which operate there (Al-Amin/Makarem/Pradhan 2011). Moreover, they are especially focused on the American continent and far less on the analysis which refers to the situation in Europe (Lunt/Carrera 2010; Lubowiecki-Vikuk/Kurkowiak 2017).

Therefore, the authors of the article have made an attempt to fill in that gap partially, assuming the customers' perception and its influence on declared purchase intentions in the selected European markets as the subject of their research study. A particularly interesting aspect has been the COO effect, which has been relatively scarcely discussed as far as services are concerned. Considering scientific literature on medical services, the discussed phenomenon has been so far mentioned in only one article (Mechinda/Serirat/Anuwichanont/Gulid 2009)[1]. Therefore, the aim of the article is to define the influence of the country of origin of services and consumers' origin country on the readiness to purchase medical services.

The article presents the following structure: it starts with a review of scientific literature on medical tourism and the COO effect and its dimensions. Then, the applied methodology is discussed, the results of the research are presented with the conclusions. At the end, some limitations and recommendations for further research are indicated.

The COO effect in medical tourism

A definition of medical tourism

Due to its dynamic development, medical tourism has significantly increased scientists' interest. Some authors define that phenomenon as a "boom in academic analysis" (Connell 2013). Yet, despite that fact, there has not been any explicit definition for that phenomenon (or even a name for it) provided during the scientific discourse so far. There has not been any reliable information concerning its scope provided either (Lunt/Carrera 2010; Connell 2013; Lautier 2014).

1 The literature review is provided with the use of the database of full-text publications accessible in EBSCO, ProQuest, Emerald and ScienceDirect.

It indicates a complex character of medical tourism which includes elements pertaining to both medicine and tourism. In scientific literature it is often referred to as medical care abroad, medical travel, treatment abroad, overseas medical health services, health tourism, health services exports, international trade in health services. An attempt to present a multi-dimensional character of that phenomenon results in the fact that there are numerous definitions as well, for example: „medical tourism means purposeful travelling to a foreign country to undergo an intended medical treatment in order to save good health, to improve quality of life or a patient's appearance (…) Medical tourism frequently involves sightseeing of the visited places" (Białk-Wolf 2014:8). Considering the emphasis set on the medical aspect discussed in the presented study, a more lapidary definition has been assumed "the act of travelling abroad to obtain medical care" (Cormany/Baloglu 2011, as cited in: Connell 2013:2).

Medical tourism comes as a complex phenomenon; however, research studies indicate that in a decision-making process undertaken by consumers, a key role is taken by a medical service (Woo/Schwarz 2014). As this kind of services directly affects human health and/or life, the choice and use of such services are related with the sense of risk and stress (Menvielle/Menvielle/Tournois 2014). The fact that such a service can take place outside the environment patients are familiar with may intensify such sensations. Hence, a fundamental role is taken by the sense of trust towards service providers and their reputation. Viewed as an alternative indicator of quality which helps to minimise the perceived risk of purchase, the image of the country of origin may also be significantly important.

While analysing medical tourism, scientists have focused on the problems referring to the choice of destination (Białk-Wolf 2018; Pennings/Autin/Decleer/Delbaere/Delbeke/Delvigne/Vandekerckhove 2009; Culley/Hudson/Rapport/Blyth/Norton/Pacey 2011), reasons for medical travels (Horowitz/Rosenweig 2007, as cited in: Mechinda et al. 2009; Ehrbeck/Guevara/Mango/Cordina/Singhal 2008; Laugesen/Vargas-Bustamante 2010; Culley et al. 2011; Connell 2011 a; Menvielle et al. 2014; Inhorn/Shrivastav 2010, as cited in: Culley et al. 2011; Shenfield/de Mouzon/Pennings/Ferraretti/Andersen/de Wert/Goossens 2010; Menvielle et al. 2014) and possible threats (Menvielle et al. 2014).

The COO effect in marketing and tourism

The COO effect is the influence of an image of the country and its inhabitants on the consumers' attitudes and behaviour towards products and brands which are developed there, or which are associated with that country (Sikora 2008). Consumers identify the origin country in an involuntary and subjective way, and such identification may not always be accurate (Balabanis/Diamantopoulos 2011; Melnyk/Klein/Völckner 2012).

The phenomenon has been drawing scholars' attention for a long time. The first scientist who actually started the research on it in 1965 was Schooler. A number of publications on the COO which appeared in the subsequent years allow us to state that the phenomenon is one of the most frequently discussed research problems in the scientific literature on international marketing and customers' behaviour. Such intensity of research, however, refers only to material goods (for relevant literature reviews, see e.g.: Javalgi/Cutler/Winans 2001; Pharr 2005; Rezvani/Dehkordi/Rahman/Fouladivanda/Habibi/Eghtebasi 2012; Saran/Gupta 2012). As far as services are concerned, that research area has been relatively scarcely analysed in that aspect (Ahmed/Johnson/Ling/Fang/Nui 2002; Chattalas/Kramer/Takada 2008; d'Astous/Giraud Voss/Colbert/Carù/Caldwell/Courvoisier 2008; Boguszewicz-Kreft 2014).

The results of the research on the COO which have been so far carried out in terms of services allow us to realise that the COO comes as a significant information carrier for consumers (Ahmed et al. 2002), it affects the assessment of quality (Wong/Folkes 2008) and purchase risk (Michaelis/Woisetschläger/Backhaus/Ahlert 2008). The research studies indicate the influence of the COO on the selection and purchase intentions. Hence, Harrison-Walker (1995) proves the influence of the COO on the selection of ophthalmologists who provide their services in the USA made by students of various nationalities; Berentzen, Backhaus, Michaelis, Blut and Ahlert (2008) prove the influence exerted on the purchase intentions of German students with regard to banking services and low-cost airlines; in their research conducted among some Indian respondents, Khare and Popovich (2010) indicate the influence of the COO on the purchase intentions, underlining at the same time that its strength differs depending on the type of services, and it is particularly more significant in professional services; Bose and Ponnam (2011) state that there is the influence of the COO of specific entertaining forms emanating from abroad on Indian students' willingness to consume (watch) such forms; Morrish and Lee (2011) prove that Chinese students and their parents perceive the COO as an important factor in the assessment and selection of services offered by universities in New Zealand; Boguszewicz-Kreft, Magier-Łakomy and Sokołowska (2015) prove the influence of the COO exerted on the purchase decisions made by Polish students with regard to transport services (courier services and low-cost airlines).

The problems referring to the impact of the country image on consumers' opinions and behaviour is also analysed in the context of tourism. In scientific literature, it is referred to as a destination image (Crompton 1997 as cited in: Mossberg/Kleppe 2005:497). A review of scientific literature on a destination image in the field of medical services indicates that there has been a noticeable research gap. In the only publication which has been identified with regard to the discussed topic, Mechinda et al. (2009) state that a positive image of a particular destination is more likely to result in a higher probability of positive processing

of information on medical services and its impact on tourists' attitudinal loyalty towards medical tourism.

The research studies also indicate that the COO effect of material products (Narayana 1981; Nagashima 1970; Sharma 2011) and services (Harrison-Walker 1995; Javalgi et al. 2001; Bruning/Saqib 2013) is affected by the respondents' country of origin, however, no scientific research has been identified so far in the field of medical tourism.

The dimensions of the COO effect

The recent research has not resulted in one explicit answer to the question whether the COO effect is a monolithic phenomenon (e.g. Hong/Wyer 1989) or whether it is composed of some more dimensions (Dinnie 2004, as cited in: Meng/Nasco/Clark 2007). There has not been any consent on any catalogue of such dimensions. Roth and Romeo (1992) provide an analysis of previous models and, based on that, they develop a COO model which consists of four dimensions:

1/ *innovativeness* — the use of technical advance and new technologies;

2/ *design* — appearance, colours, style and variety;

3/ *prestige* — exclusive character, brand reputation and status;

4/ *workmanship* — durability, reliability, art and quality of production.

The model has been developed for the requirements of the research in the field of material goods. In 2011, Bose and Ponnam referred to that model and, after some adaptation, they applied it to the research on entertainment services. However, neither Roth and Romeo (1992) nor Bose and Ponnam (2011) were able to prove the multi-dimensional character of the COO.

In 2015, Magier-Łakomy and Boguszewicz-Kreft came to different conclusions. They decided to verify the hypothesis about the multi-dimensional character of the COO effect by modifying the suggestions of the above-mentioned authors in order to obtain a universal model which — on one hand — would allow us to make some possible comparison to the field of material goods, and which — on the other hand — could be applied in research studies on various types of services. The authors introduced the following dimensions: 1/ *innovativeness* — the use of the latest knowledge and advanced technology, 2/ *diversity* —variety, wide range and attractiveness of an offer, 3/ *prestige* — exclusivity, status, brand name reputation, 4/ *quality* — reliability, durability, professionalism.

Using such a model, the authors have proved that the COO comes as a multi-dimensional category; they have also proved the multi-dimensional character of that phenomenon in medical (Magier-Łakomy/Boguszewicz-Kreft/Janiunaite 2016) and transport services (Boguszewicz-Kreft et al. 2015).

Research methodology

The research has been conducted by the method of a diagnostic survey, with the use of a questionnaire form developed by the authors on the basis of the scales suggested by Roth and Romeo (1992). The questionnaire form has consisted of five sections. In the first section, the country image has been measured. The respondents have been asked to assess how they perceive services and products of particular countries (that is Lithuania, Germany and Poland subsequently) with regard to each accepted dimension. In the next section, the respondents have assessed the significance of these dimensions during the selection of a medical service. The next section has contained a question about their readiness to purchase a medical service in each assessed country. The questions have been answered with the use of a six-grade scale, where 1 meant "definitely no" or "very low," and 6 meant "definitely yes" or "very high". The next section includes a question about the number of foreign trips (M=12.91; SD=12.40), it indicates that the participants of the survey have some experience which refers to staying abroad.

The data have been collected from 264 German, Lithuanian and Polish students. It seems that having students as the respondents in the research does not undermine its value (is legitimised) because in their meta-analysis of the research concerning the COO effect Verlegh and Steenkamp (1999) do not observe any differences between the strength of the COO effect tested on the samples composed of the students in comparison to the samples which are representative for all buyers on a particular market. The last section includes questions about the respondents' personal details. All the statistical analysis has been carried out with IBM SPSS Statistics 21 software.

Table 1. Characteristics of respondents participating in the research

Respondents	N	age		gender*	
		M	SD	Women	Men
German	72	22.53	2.75	45	27
Lithuanian	65	23.02	6.60	33	31
Polish	127	23.43	6.51	72	53
Total	264	23.09	5.70	150	111

*the *sum of women and men does not include the general number of participants due to the lack of gender information in several questionnaires*

Source: the authors' own study.

Hypotheses and results

The authors of the research have applied the rate of the weighted COO effect — the power of the COO defined *as the global perception of the COO of the service weighted by the importance of the particular dimensions in the particular service* (Boguszewicz-Kreft et al., 2015: 29). The rate provides a synthetic description of how highly the COO dimensions are assessed for services coming from a particular country, and at the same time, how important those dimensions are in a particular service. The advantage of the rate is that it considers the fact that the COO does not have a one-dimensional character and that the analysed dimensions may affect consumers with various strength, depending on the service they are about to choose.

The power of the particular country of origin k (k=1,2,3) in the assessment of medical services for the jth consumer (j=1, … 264) has been determined by the following equation:

$$U_{k,j} = innov_{k,j} \cdot w_{innov,j} + diver_{k,j} \cdot w_{diver,j} + qual_{k,j} \cdot w_{qual,j} + pres_{k,j} \cdot w_{pres,j}, \quad (1)$$

where:

$w_{inn,j}$; $w_{div,j}$; $w_{qual,j}$; $w_{pres,j}$— the weights or the importance of the particular dimensions (respectively: innovativeness, diversity, quality and prestige) for the jth respondent in the choice of a medical service. The weights have been obtained by asking respondents to do the following (using 6-point importance scale): "Evaluate the importance of the following characteristics as regards to medical services."

$inn_{k,j}$; $div_{k,j}$; $qual_{k,j}$; $pres_{k,j}$— the perception of the particular dimension by the jth consumer in the k country, provided in the respondent's answer to the question: "How would you evaluate innovativeness (and then respectively diversity, quality and prestige) of the products and services offered in the particular country?" The respondents answered with the use of a 6-point scale (for instance to evaluate countries on prestige: 1=not prestigious; 6=very prestigious).

Obtained in such a way, the power has been used as an independent variable.

Hypothesis 1. *The readiness to purchase medical services differs depending on the consumer's country of origin.*

Hypothesis 2. *The impact of the power of the COO of medical services on the readiness to purchase them differs depending on the consumer's country of origin.*

In order to verify the presented hypothesis, the following model has been applied:

$$G_{k_{ij}} = \alpha_0 + \alpha_1 U_{Cconsij} + \beta_1 Lith_{ij} + \beta_2 Ger_{ij} + \gamma_{11} U_{Cconsij} Lith_{ij} + \gamma_{12} U_{Cconsij} Ger_{ij} + b_{0j} + \varepsilon_{ij} \quad (2)$$

$G_{k_{ij}}$- ith readiness to purchase medical services ($i = 1, \ldots, 792$, i — the number of measurements) in the kth country ($k = 1,2,3$) declared by the jth consumer ($j = 1, \ldots, 264$).

$Lith_{ij}$— the 0–1 variable that takes the value 1 when the jth person who declares their readiness to purchase medical services comes from Lithuania, and 0 in other cases (namely: when the consumer comes from Germany or Poland); the Ger_{ij}variable is constructed in a similar way.

The number of variables which indicate consumers' country of origin is lower than the number of countries by 1; in other cases, the variables would be linearly dependent. The omitted variable forms a reference group; the estimate of the parameters of the model for that group is obtained by replacing all the 0–1 variables with 0 value. The authors have selected Poland as a reference group.

$U_{Cconsij}$— the centred power of the COO, its values have been obtained in the following way: the average value of the COO power calculated separately for each origin country of the consumer has been deducted from each particular value of the COO power variable.

Table 2. Tests of the fixed effect for Model 1. Degrees of freedom, F and p values for the factors included in the generalised linear mixed Model 1

Effect	Num df	Den df	F	P
Intercept	1	227.443	5,000.202	0.000
centered power of the COO	1	744.158	813.710	0.000
consumer's origin	2	227.443	7.373	0.001
centered power of the COO x consumer's origin	2	745.546	4.001	0.019

Source: the authors' own study.

The results presented in Table 2 indicate that the COO power (F=813.710, p<0.001), the origin of the respondent (F=7.373, p=0.001) and the interaction of those variables (F=4.001, p=0.019) have a significant impact on the readiness to purchase medical services.

The next table presents the estimate of the parameters referring to fixed and random effects for Model 1.

Table 3. Estimate of fixed effects and covariance parameters for model 1

Model 1[a]				
Estimates of Fixed effects				
Parameter	estimate	Std. error	t [Wald z-test for cov. param.]	sig
Intercept	3.638	0.075	48.537	0.000
Centered power of the COO	0.036	0.002	17.584	0.000
Consumer's origin: Lithuania	0.490	0.129	3.807	0.000
Consumer's origin: Germany	0.108	0.125	0.863	0.389
Consumer's origin: Poland	0[b]	0	.	.
Consumer's origin: Lithuania x Centered power of the COO	0.003	0.003	0.733	0.464
Consumer's origin: Germany x Centered power of the COO	0.009	0.003	2.802	0.005
Consumer's origin: Poland x Centered power of the COO	0[b]	0	.	.
Estimates of covariance parameters				
residual $\widehat{\sigma}_0^2$	1.125	0.072	15.632	0.000
Intercept [subject=person id] Variance $\widehat{\sigma}_{consumer}^2$	0.338	0.073	4.615	0.000

[a.] Dependent variable: the readiness to purchase services
[b.] This parameter is set to zero because it is redundant.

The introduction of the *respondent's origin* variable to the model diminishes interpersonal variance of the results by 12.39%; however, it slightly increases the intrapersonal variance (by 0.4%). It means that the respondents differ in terms of their readiness to purchase services and such differences are connected with the respondents' country of origin. The introduction of the interaction effect has resulted in a decrease in the intrapersonal variance of results by 1.44%, in comparison to the model without any interaction; however, it has caused some growth in the interpersonal variability (by 1.43%).

Based on the estimated parameters, it is possible to state that the Lithuanian consumers present higher readiness to purchase medical services than the Polish respondents ($\widehat{\beta}_1$=0.490410, p<0.001). The difference between the Polish and the German consumers' readiness to purchase medical services turns out to be insignificant ($\widehat{\beta}_2$=0.107576, p=0.389). Considering all the consumers, the influence of the power of the COO on the readiness to purchase medical services becomes significant, however, in reference to the German consumers, it is significantly higher than for the Polish consumers ($\widehat{\gamma}_{12}$=0.008861, p=0.005). It may in-

dicate that in their decisions the German consumers are driven more (in comparison to the Polish respondents) by the perception of the COO dimensions of the country from which they wish to purchase services from.

Hypothesis 3. *The readiness to purchase medical services differs depending on consumers' country of origin and on the country of origin of a particular service.*

Hypothesis 4. *The impact of the COO power on the readiness to purchase medical services in a particular country differs, depending on the country of origin of these services and on consumers' country of origin.*

In order to verify hypotheses 3 and 4, the parameters of three models have been estimated, each model for each country the services of which have been assessed. A mixed model has been applied; however, it has not considered the consumer effect as a random effect, because the readiness to purchase medical services in the subsequent models has been measured in each respondent only once. A theoretical form of the applied models is the following:

$$G_{k_j} = \alpha_0 + \alpha_1 U_{cons,\,country\,j} + \beta_1 Lith_j + \beta_2 Ger_j + \gamma_1 U_{Ccons,\,country\,j} Lith_j + \gamma_2 U_{Ccons,\,country\,j} Ger_j + \varepsilon_j \quad (j = 1, \ldots, 264) \tag{3}$$

G_{k_j}— readiness to purchase medical services in the kth country ($k = 1,2,3$) declared by the jth consumer ($j = 1, \ldots, 264$).

$Lith_j$— the 0–1 variable that takes the value 1 when the jth person who estimates their readiness to purchase medical services comes from Lithuania, and 0 in other cases (namely: when the consumer comes from Germany or Poland); the Ger_{ij} variable is constructed in a similar way.

The number of variables which indicate consumers' country of origin is lower than the number of countries by 1; in other cases, the variables would be linearly dependent. The omitted variable forms a reference group; the estimate of the parameters of the model for that group is obtained by replacing all the 0–1 variables with 0 value. The authors have selected Poland as a reference group.

$U_{Ccons,\,country\,j}$— the centred power of the COO, its values have been obtained in the following way: the average value of the COO power calculated separately for each origin country of the consumer and each origin country of the service has been deducted from each particular value of the COO power variable.

Table 4. Estimates of fixed effects and covariance parameters for the model

Type III tests of Fixed Effects[a]							
Source	Numerator df	Lithuania		Poland		Germany	
		F	p	F	p	F	p
intercept	1	1,978.897	0.000	1,568.320	0.000	9,043.410	0.000
Centred power of COO	1	47.186	0.000	60.135	0.000	37.680	0.000
Consumer's origin	2	42.954	0.000	6.439	0.002	17.516	0.000
Consumer's origin x Centred power of COO	2	0.157	0.855	0.323	0.724	6.727	0.001

[a]Dependent variable: the readiness for the purchase
Denominator df=264

The results in Table 4 indicate that *the power of the countr*y and the *consumer's origin country* significantly affect the readiness to purchase in all three models. The consumer's origin x power of COO interaction is significant only for medical services coming from Germany.

Table 5. Estimates of fixed effects and covariance parameters for models

Models 2,3,4[a]									
	Lithuania			Poland			Germany		
Estimates of Fixed effects									
Parameter	estimate	Std. error	p	estimate	Std. error	p	Estimate	Std. error	p
Intercept	2.661	0.100	0.000	3.228	0.102	0.000	5.024	0.078	0.000
Centered power of the COO	0.022	0.005	0.000	0.028	0.005	0.000	0.010	0.003	0.000
Consumer's origin: Lithuania	1.539	0.172	0.000	-0.351	0.175	0.045	0.284	0.134	0.035
Consumer's origin: Germany	0.144	0.166	0.386	-0.589	0.169	0.001	0.768	0.130	0.001
Consumer's origin: Poland	0[b]	0	.	0[b]	0	.	0[b]	0	.
Consumer's origin: Lithuania x Centered power of the COO	0.002	0.009	0.785	0.002	0.008	0.796	0.022	0.007	0.001
Consumer's origin: Germany x Centered power of the COO	0.005	0.008	0.579	-0.005	0.008	0.523	-0.004	0.005	0.480
Consumer's origin: Poland x Centered power of the COO	0[b]	0	.	0[b]	0	.	0[b]	0	.
Estimates of covariance parameters									
residual $\widehat{\sigma}_0^2$	1.271	0.111	0.000	1.312	0.114	0.000	0.774	0.067	0.000

[a.] Dependent variable: the readiness for the purchase.
[b.] This parameter is set to zero because it is redundant.

Considering the model for Lithuanian medical services (see Table 5), the estimate of the $\widehat{\alpha}_0$=2.661 parameter comes as the average readiness to purchase Lithuanian services presented by the Polish consumers. The parameters $\widehat{\beta}_1$ =1.539 and $\widehat{\beta}_2$=0.144 come as differences between the average readiness to purchase presented by the consumers coming from Lithuania and Poland and from Germany and Poland.

The readiness to purchase presented by the Lithuanian consumers is significantly higher than the readiness declared by the Polish respondents (p<0.001). The difference between the readiness presented by the German and the Polish respondents is insignificant (p=0.386).

The estimate of the $\widehat{\alpha}_1$=0.022 parameter indicates the impact of the COO on the readiness to purchase medical services from Lithuania presented by the Polish consumers. That impact is significant (p<0.001). The differences in the discussed impact between the Polish and the Lithuanian consumers, and between the Polish and the German respondents are respectively $\widehat{\gamma}_1$=0.002 and $\widehat{\gamma}_2$=0.005, and they turn out to be insignificant differences (p=0.785 and p=0.579). Considering services from Poland, both the German and the Lithuanian respondents declare significantly lower readiness to purchase than the Polish respondents ($\widehat{\beta}_1$ =-0.351; p=0.045; $\widehat{\beta}_2$=-0.589; p<0.001). The differences in the impact of the COO power on the readiness to purchase medical services in Poland presented by the consumers from three countries are not statistically significant. The readiness to purchase medical services from Germany is significantly higher for the Lithuanian respondents ($\widehat{\beta}_1$=0.284, p=0.035) and the German respondents ($\widehat{\beta}_2$ =0.768, p=0.001) in comparison to the Polish consumers. The impact of the COO power on the readiness to purchase services in Germany is significantly higher for Lithuanian consumers than for the Polish respondents ($\widehat{\gamma}_1$=0.022, p=0.001).

Discussion

The obtained results of the research show that the readiness to purchase medical services varies depending on the consumers' country of origin, and it is consistent with other results obtained in the research studies on the process on making purchase decisions by buyers of material goods and services (Narayana 1981; Nagashima 1970; Sharma 2011; Harrison-Walker 1995; Javalgi et al. 2001; Bruning/Saqib 2013) and in the case of the discussed research sample, it has reached the lowest level for the Polish respondents, and the highest level for the Lithuanian respondents. Considering readiness to purchase in particular countries, a tendency towards consumers' preference to purchase medical services coming from their country can be observed, which has been also proved by the

results of some other research studies on material goods (Narayana 1981; Nagashima 1970; Sharma 2011) and services (Harrison-Walker 1995; Javalgi et al. 2001; Bruning/Saqib 2013). In other words, the highest readiness to purchase services coming from a particular country has been declared by consumers who come from that country.

The results also prove the influence of the COO of medical services on the process of making purchase decisions, which has been previously indicated in some other research studies (Harrison-Walker 1995). At the same time, however, regardless of consumers' country of origin, the highest readiness to purchase medical services has been declared for services offered in Germany. Such results can be explained with the highest economic development of Germany among 3 compared countries. As the previous research indicates, the higher level of economic development of a country is, the lower the risk perceived by consumer becomes, as far as the purchase of products coming from that country is concerned, and the higher certainty of their quality (Kaynak/Kucukemiroglu/Hyder 2000; Lim et al. 1994, Zeithainl 1988, as cited in: Meng et al. 2007). Hence, in numerous developing countries citizens assess products coming from more developed countries higher (Hong/Wyer 1990; Leclerc/Schmitt/Dube 1994). Also in the field of services, the phenomenon of preference for services offered by more developed countries can be observed (Javalgi et al. 2001).

Considering the influence exerted by the COO power regardless of the country of origin of the service on the readiness to purchase, it is significantly higher for the German consumers than for the Polish consumers. There is no significant difference in the discussed influence between the Polish and Lithuanian consumers. It means that in their choices the German respondents follow the analysed COO dimensions to a larger extent than the Polish consumers.

Considering the relation between readiness to purchase medical services and the country of origin, taking into consideration the country of origin of the service, it is possible to state that it is the strongest for the Lithuanian consumers who assess German services; it also refers to their assessment of services offered in Poland, but the differences, in this case, are insignificant.

The obtained results indicate that the influence of the COO on readiness to purchase medical services may vary, depending on consumers' country of origin and on the country of origin of services. In each of the investigated countries, this influence was significant for all of the studied consumers regardless of their country of origin. However, in some cases, there were insignificant differences in the strength of this influence between consumers from different countries. Further research is required to explain the reason for the differences in the strength of the influence of COO on readiness. It may be assumed that the higher the knowledge on the given service provided by a specific country, the higher the influence exerted by dimensions that are more profiled than general ones,

considered when constructing the COO power indicator, on the purchasing decisions of consumers.

In practical application, the research results indicate that while planning marketing operations, it is worth considering the fact that the discussed dimensions of the country image will not affect all the consumers with the same strength. Hence, the marketing message should be differentiated, depending on the country of origin of the consumers we wish to reach. The obtained results may indicate that in their choices consumers from different countries may follow not only the analysed dimensions, and they may be more affected by some other features of medical services which have not been included in the research study.

Conclusions

Considering the processes in which the image of a country is formed and medical services are promoted, the dimensions of medical services which are desirable from the point of view represented by consumers in that particular country should be emphasized. They should be fitted into a system of comprehensive, integrated and cohesive marketing communication. Marketing communication comes as an element which has the strongest impact on target markets in any regional marketing operations (Szromnik 2016; Marczak 2018), and it is an important element in creating value for customers (Wiktor 2014; Borzyszkowski 2015).

Considering the limitations of the presented research, it should be noted that the convenience samples have been relatively small for each particular country. They have consisted of the students from one university in each country. Therefore, the results cannot be generalised. The authors' intention has been to provide a universal measurement instrument which could allow us to compare various categories of products, as perceived by consumers from various countries. Perhaps, because of the specificity of medical services, it would be advisable to develop a separate set of dimensions.

The results of the research presented in the study indicate that the COO power can affect the readiness to purchase medical services with various intensity. However, the analysis has been carried out for a sample which is too small to draw general conclusions referring to the reasons for such a phenomenon. In further research, it would be advisable to consider a greater number of countries which offer medical services. It would allow us to provide some generalisation of the obtained results. Since a number of research studies have proved that the differences in the perception of the COO of material goods is related to cultural factors (Sharma 2011; Parr 2005; Gurhan-Canli/Maheswaran 2000; Lee/Garbarino/Lerman 2007) and services (Harrison-Walker 1995; Javalgi et al. 2001), it would be interesting to analyse which of them and to what extent affect the differences in consumers' preferences for medical services.

The results of the research may be useful for various business entities which operate in the international markets: for medical service providers in developing their marketing operations, for institutions which form the image of their country and its position in the international arena.

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