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A CONCEPTUAL MODEL OF MAINTAINING EQUIVALENCE IN INTERNATIONAL MARKET RESEARCH

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Abstract: This paper focuses on equivalence in international market research and the conditions for maintaining such an equivalence. Equivalence was defined, in the field of research on an international scale, as an attribute of the results of research conducted in a multicultural environment, which guarantees the coherence of measurement models amongst the analysed countries. This attribute is achieved by the appropriateness of the subject-matter of research, sampling design, measurement tools, the process of direct research and the research results in the scope of the analysed countries/cultures. The model for maintaining equivalence described in this paper provides the researchers with knowledge of the conditions for maintaining equivalence in their international market research, and knowledge of the methods and criteria for evaluating data quality and comparability to those who avail themselves of reports and databases concerning foreign markets.

Keywords: equivalence, international research, market, research, model, online purchasing.

1. Introduction

An important purpose of international research is to find similarities and differences between known populations. International comparative research is conducted in organization behaviour (Harpaz, 1990; Niessen, Peschar, and Kourilsky, 2013), strategic management (Capon, Christodoulou, Farley, and Hulbert, 1987), and marketing (Agarwal, 1993; Cateora, and Hess, 1993; Tsai, Luck, Jefferies, and Wilkes, 2017) and also in other fields. The results of these comparisons can have

far-reaching implications for international management theory and practice (Raaij, 1978, pp. 693-701; Sekaran, 1983; Kotabe, and Murray, 1990; Aaker, Kumar, and Day, 2007; Holzmeister and Kerschbamer, 2019; Watson, 2019).

There are many recognised problems with conducting international research for comparative purposes (Craig and Douglas, 2005; Peterson, 2005; Mullen, 1995). The problem of equivalence (comparability) in international research constitutes a challenge for numerous scientists (Almond and Verba, 1963; Frijda and Jahoda, 1966; Vijver and Leung, 1997; Deth, 2006). Equivalence was defined by Craig and Douglas (2005) as “data that have, as far as possible, the same meaning or interpretation, and the same level of accuracy, precision of measurement or reliability in all countries and cultures.” The equivalence of constructs, samples and measurement must be addressed in order to ensure cross-national comparability (Sekaran, 1983; Craig, and Douglas, 2005; Parameswaran and Yaprak, 1987; Bhalla and Lynn, 1987; Aulakh and Kotabe, 1993).

The problem of maintaining equivalence of research results is common for the teams of researchers who conduct studies of an international scope (teams established by enterprises operating in foreign markets, for whom the main purpose is to create an effective marketing strategy as well as teams working for scientific organizations for whom the research results are a source of new knowledge). The problem of equivalence constitutes a challenge for researchers who represent various scientific disciplines (linguistics, psychology, sociology, law, economics, statistics, and even architecture).

This paper focuses on the equivalence in the international market research and the conditions for maintaining such an equivalence.

2. Research approach

The goal of this study was to determine the key conditions for maintaining equivalence and the methods of evaluating equivalence in international market research. Another goal was to create a model for maintaining equivalence which may become a starting point for evaluating the level of equivalence of international market research. The overall accomplishment of the main goal of this study required the achievement of cognitive goals such as: the identification of the problem of equivalence in various scientific disciplines, a review and explanation of the scientific approaches to market research equivalence in world literature, the identification of various levels of equivalence in market research, the identification of conditions for maintaining equivalence in the process of market research on every distinguished level, indicating cultural factors that affect maintaining of equivalence in research conducted in different markets (different cultures), and creating a conceptual model for maintaining equivalence in market research.

The model for maintaining equivalence described in the study provides researchers with knowledge of the conditions for maintaining equivalence in their international market research and knowledge of the methods and criteria for

evaluating data quality and comparability to those who avail themselves of reports and databases concerning foreign markets.

The analysis of the available literature on this subject and the predefined goals of this study constituted the basis for defining the following two hypotheses:

H1: The level of equivalence among the results of international scientific research depends on maintaining equivalence on the following levels: the subject-matter of research, the measurement tools, the process of collecting data and the selection of sampling design. The greater the research equivalence level on the interpretational level, the greater the research equivalence level on the procedural level.

H2: The necessary condition for maintaining equivalence is to undertake, at every stage of the research process, certain actions to reduce the negative impact of numerous variables (including the cultural diversity of markets, their demographic, social and economic structure, cultural competence of the researchers and international cooperation of the research team, as well as the type, number and quality of data sources) on the level of research equivalence. The broader the scope of undertaken activities, the higher the level of equivalence of the research results.

The nature of the analyzed problem has influenced the methodological approach used in this study. Due to the fact that the proper understanding of the subject-matter of this study requires the analysis of the non-economic conditions, it proved to be appropriate to apply a multi-disciplinary approach to the problem. An attempt was made (with full awareness of the imperfection of such an approach) to present the problem of research equivalence from the perspective of human sciences, especially linguistics, management science, human sciences (including psychology and sociology), and economic sciences (economics, management science), as well as pure sciences (mainly statistics). Hence the following three paradigms may be indicated which encompass the topic of this paper: constructivism (understanding and multitude of interpretations), postpositivism (empirical observation, measurements and verification of theories) as well as pragmatism (concentration on problems, consequences of action, orientation on the practical goal).

3. Conceptual model

The model for maintaining equivalence (MZE) can be described with the following equation:

$$MZE = \langle C_{MZE}, O_{MZE}, W_{MZE}, D_{MZE} \rangle,$$

where: C_{MZE} – objective, O_{MZE} – field, W_{MZE} – conditions, D_{MZE} – actions.

For defining the functional objective of the model for maintaining equivalence the following assumption can be made:

$$C_{MZE} = \langle C_E, C_A \rangle,$$

where: C_E – exploratory objective, C_A – analytical objective.

The objective of international market research is to acquire information on the defined subject-matter of research (in the multidimensional aspect such as objective, subjective, spatial and temporal aspect). In trying to achieve the exploratory objective, the researcher wants to come up with comparable results so as to determine if there are any similarities (what kind of similarities?) or differences (what kind of differences?) amongst countries, cultures and social groups. On the other hand, the analytical objective of research in which the equivalence is to be maintained, is to create a solid information-based foundation upon which a successful foreign market strategy can be developed, which entails the necessity of adapting the marketing strategy to the specific cultural background of the analyzed markets, or indicating the option to implement the standard, single strategy in all the analysed regions.

While defining the scope of the equivalence maintaining model, the following can be assumed:

$$O_{MZE} = \langle E_{IN}, E_{PR} \rangle,$$

where: E_{IN} – interpretational dimension level, E_{PR} – procedural dimension level.

Equivalence of the interpretational dimension level is assured by the proper defining of the object of research (P1) in the multicultural environment (in the conceptual, functional and categorizing aspect), the creation of the research measurement tools (P2), the course of the data gathering process (P3) and collecting the proper research sample (P4) so as to reflect the specifics of the analyzed country.

It is assumed that the positive influence of the intermediate variables on the degree of equivalence on the interpretational level depends on independent variables which include: cultural diversity (Z1), researchers' cultural competences (Z2), research informatory basis (Z3), the demographic, social and economic factors in the analyzed countries (Z4) as well as international cooperation (Z5). The Z1 variable has an impact on the P1, P2 and P3 variables. Moreover, the assumption is made that the higher level of cultural diversity amongst the analyzed markets puts a greater pressure on researchers to increase their efforts to maintain equivalence already at the research design stage (to define the research subject, create measurement tools and plan the data gathering process).

The implication of cultural diversity of the analysed markets is the different understanding of the object of research, its nature, its functions and the environment in which the object functions and the method of classification and categorization. A high level of cultural diversity to a great extent influences the process of measuring, which determines both the construction of the measurement tools (including the necessity to use subjective and objective measurements of the object of research), as well as the selection of the methods and techniques of acquiring information. The cultural competence level of the researchers, which is reflected in the identification of the similarities and differences between the cultures in the analysed countries, as well as in the conceptual and operational solutions undertaken at the research design stage, affects the definition of the object of research. The researchers' cultural

competence in the field of calibration of the measurement scales, both verbal and non-verbal in different cultures and in the verbal translations, determine the accuracy of the measurement tool. The researchers' knowledge of the respondents' (people's) preferences as to the form and place of contact with the researchers determines the effectiveness and efficiency of the data collection process. In the presented model, the influence of the Z3 variable on P3 and Z4 on P4 was indicated. The Z3 variable is constituted by the number of sources used in the research, their nature and quality, which directly affects the quality of the data collection process. It was assumed that the greater the number of information sources, the more difficult it was to sustain comparability of information acquired from those sources. On the other hand, the demographic, social and economic factors including population structure (in the analysed countries), availability of sampling frames, condition of research infrastructure and the social attitude towards market research, affect the method of selecting the research sample and its equivalence on the level of the analyzed countries. The model also assumes the direct influence of the Z5 variable on the level of equivalence on the interpretational level. The international cooperation as described in the model includes the international team's experience in conducting research, their knowledge of the analysed markets and their ability to run an international research project.

The model of (maintaining) equivalence on the procedural level (MZE_{PR}) assumes obtaining a coherent measurement (equivalent) for the analysed countries on the structural, metric and scalar levels. The procedural level equivalence is verified by the statistical analysis of the obtained research results. The model assumptions are as follows: (firstly) there are comparable constructs in the analysed countries and (secondly) those constructs have a similar structure.

For defining the set of conditions necessary for maintaining equivalence, it was assumed that:

$$W_{MZE} = \langle W_{p1}, W_{p2}, W_{p3}, W_{p4}, W_{p5} \rangle,$$

where: W_{p1} – conditions proper for the object of research level, W_{p2} – conditions proper for the measurement tool level, W_{p3} – conditions proper for the sampling level, W_{p4} – conditions proper for the research process level, W_{p5} – conditions proper for the research results level.

On the W_{p1} level, the conditions necessary for international research equivalence include the understanding of the object of research in its conceptual, functional and categorizing aspects in the variety of the analysed cultures. Maintaining research equivalence at the W_{p2} level is guaranteed by the variables referring to measurement scales calibration and measurement units applied in the research tool, as well as to the procedures used for translating the research questionnaires. The W_{p3} level for maintaining equivalence is related to the sampling method, and the variables that ensure comparability of results are as follows: sampling units that meet the same

criteria, equivalent sampling frames and appropriate for the research purpose methods of selecting the research sample in every analysed country subject to research. The W_{p4} level variables concern the research process. Maintaining research equivalence depends on applying the proper procedure for data collection from multiple sources with attention given to the time frame in which the data was collected, as well as to the social and cultural conditions creating the context for proper interpretation. Amongst the conditions proper for the W_{p5} level concerning the research result, the following variables were identified: those determining the comparability of the analysed construct, its structure and its metric as well as scalar coherence.

In the model of maintaining research equivalence the following field of activities was determined:

$$D_{MZE} = \langle D_{PB}, D_p, D_{AD} \rangle$$

where: D_{PB} – research design stage activities, D_p – research measurement stage activities, D_{AD} – data analysis stage activities.

The spectrum of variables analysed during the research design stage (D_{PB}) includes decisions concerning the research subject-matter and human subject, the approach to research and to the research construct. While defining the subject-matter of research, the researcher, based on the meta-analysis of literature makes conclusions as to whether the subject-matter of research has the same meaning in the target culture, and strives to eliminate the influence of culture on the research subject-matter determination. The decisions concerning the human subject of research include selecting such subjects that meet certain research criteria (referring to the research objective) as well the selection of sample units based on the research objectives.

Maintaining research equivalence would be easier if in the approach to research the combination of etic and emic approach was used. The activities undertaken at the stage of creating a research construct will also affect the equivalence of research, including decisions concerning the pilot study of a preliminary investigation nature leading to the verification of conceptual and functional equivalence and to the categorization of the subject-matter of research. The analysis of pilot study results will allow for a proper determination of the theoretical accuracy of the construct. At the research design stage the following activities also affect the research equivalence: activities concerning the international cooperation as well as the application of knowledge shared by members of the multicultural teams.

The research measurement stage (D_p) encompasses the design of the research tool, the plan of sample selection and data collection procedures. Equivalence will be strengthened by the recourse translation of the measuring tool, the use of proper (for a given culture) measurement units and verbal scales in the questions asked, the avoidance of such expressions (statements, definitions, constructions) that are unique for a specific culture as well as by constant collaboration with representatives

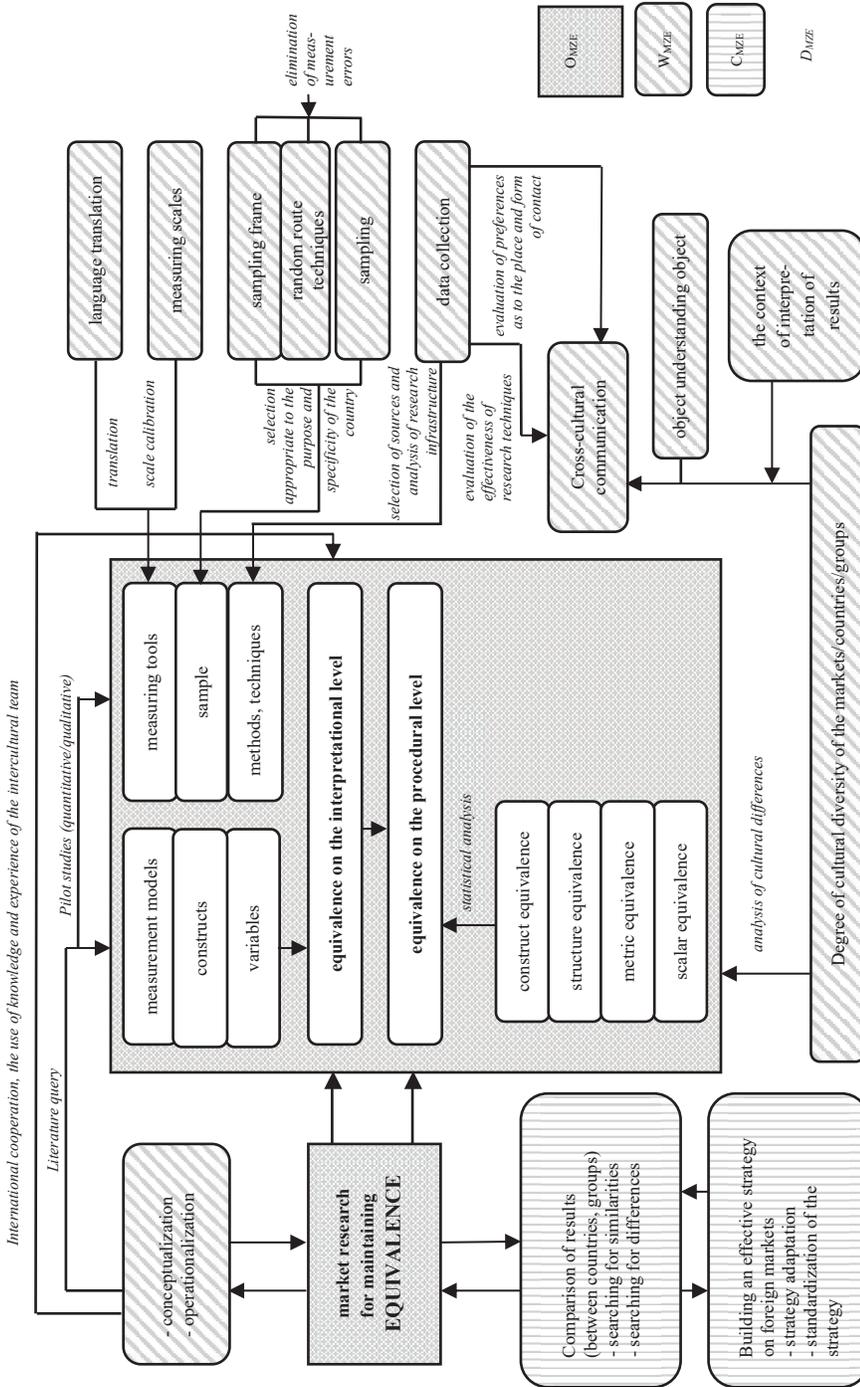


Fig. 1. Model for maintaining equivalence in market research (MZE)

Source: own study.

of the analyzed cultures as language consultants. It is also recommended that a test of the research tool is made so as to validate it.

Activities concerning the research sample include first of all trying to achieve representativity of the sample in every analysed country and the elimination of errors related to the sample selection in the direct research. At this point, the necessity arises of creating unified procedures for data collection in the set time frames. Maintaining research equivalence at this stage of research will be enhanced by the collaboration of the field researchers of the interdisciplinary and multicultural team (including local coordinators or research agencies).

The variable that is part of the model, which concerns the data analysis stage (D_{AD}) is the evaluation of coherence (matching) of the measurement model (of the analysed construct) in the analysed markets. At this stage it is necessary to undertake activities that lead to the verification of hypotheses related to the existing cross-group differences. The researcher is bound to conduct a series of tests (in the suggested order), beginning with a global test of cross-cultural measurement equivalence through testing the goodness-of-fit of independent structural models, evaluating the relative fit of models, and testing the hypothesis of the equivalence of free terms in the spectrum of the analysed countries.

The described model for maintaining equivalence is presented in Figure 1. The model comprises a set of assumptions creating a schematic picture of reality, in which the researchers dealing with international market research operate. In the model, the necessary elements of that reality are presented as well as the relations amongst them.

4. MZE_{IN} – case study

Maintaining equivalence in market research is necessary both on the interpretational level (the level of defining the subject-matter of research, constructing measurement tools, designing the process of field research), as well as on the procedural level (the level of statistical coherence of the achieved results concerning the analyzed construct, its structure, measurement units and errors). Based on the example of the international research project concerning the purchasing behaviour of e-consumers (an international research project managed by the author in 2011-2014, entitled: "E-consumer in Europe – a comparative analysis of behaviour" financed by the National Science Centre, Poland), the analysis of equivalence of the results was conducted on the two aforementioned levels.

Before commencing field studies, the design of the study was evaluated on an interpretative level. The literature on the problem under investigation was reviewed and the scope of research was determined with equivalence at the level of the research subject, assuming that the e-consumer is a person who manifests and satisfies his/her consumption needs with products purchased on the Internet. On the other hand, the behaviour of e-consumers related to the purchasing process was defined as

a sequence of activities aimed at purchasing a good or service via the Internet in order to meet a specific need.

E-consumers use the Internet to facilitate the consumption process: identifying needs, finding information and convenient solutions, purchasing products and services, and solving problems.

It was assumed that due to the globalization and dissemination of the Internet, the observed behaviour of e-consumers is similar throughout Europe. The study was carried out in accordance with the etic approach. Researchers are aware of the different cultural conditions determining traditional purchasing behaviour in the countries selected for the study. It was assumed that online purchases made by e-consumers (with the same demographic and social characteristics) are universal (regardless of the country of residence).

The defined research object was operationalized and as a result a set of questions for the questionnaire was received. The research questionnaire was verified by a pretest in each of the six countries and it was translated by sworn translators into five languages. The purpose of the pretest was to cite the translation equivalence. The translated questionnaires were subject to consultation by the national coordinators of project research. As a result of a pretest, the measurement scale in the chosen questions was changed from a monopolar to a bipolar rating scale (which resulted in a higher level of measurement equivalence).

Despite due diligence in maintaining proper conditions that influence the level of data comparability at the stage of the research design and in the phase of collection data, it might happen that the achieved results are not comparable in their subjective or spatial aspect. Therefore to verify the level of equivalence of the collected data, it was necessary to use the statistical methods of analysis. While using the methods of factor analysis, the evaluation of equivalence was conducted in terms of the model of attitudes towards online shopping at the configuration, metric and calibration level indicating the type of data equivalence in the series of analysed countries (factor loadings, constants and random errors).

The summary statistics for goodness-of-fit of the presented models are presented in Tables 1 and 2, together with the values of statistics χ^2 for the test of the differences of the nested models.

The analysis indicated that the fit of model 1 for France, Slovakia and Romania (without restrictions) is not very good, but is acceptable. Model 1 is the starting point for the further assessment of the level of equivalence of the research results. The next step is to analyse the model with restrictions (model 2). Compared to model 1, the adjustment to empirical data worsened slightly. RMSEA increased by 0.004 and TLI and CFI decreased slightly. It can be concluded that the model is still acceptable for the analyzed countries. The studied countries have common factor loadings, and this means that the results are partially equivalent (compliance at the metric level). The next level of analysis is the scalar compatibility assessment. Confirmatory factor analysis was performed. The fit of model 3 with common loads and factor constants

Table 1. The model fit statistics together with values for χ^2 statistics for discrepancy test for the nested models used for the countries that meet the configuration equivalence criterion

Specification	No of parameters	χ^2	df	p	CFI	TLI	RMSEA	AIC	BIC
Model 1	90	160.89	72	0.000	0.919	0.911	0.064	16222.5	16644.6
Model 2	78	176.09	84	0.000	0.916	0.904	0.068	16213.6	16579.5
Model 3	66	242.53	96	0.000	0.867	0.851	0.083	16263.6	16573.2
	Scaling factor	L	cd	TRd	p	Comments			
Model 1	1.151	-8021.2				no restrictions			
Model 2	1.138	-8028.8	1.236	12.26	0.425	factor loads			
Model 3	1.131	-8065.8	1.177	62.91	0.000	factor constants			

χ^2 – fit index, CFI – Confirmatory Fit Index, TLI – Tucker-Lewis Index, RMSEA – Root mean square error of approximation, AIC – Akaike Information Criterion, BIC – Bayesian Information Criterion, p – value, df – degrees of freedom. Scaling factor: L – the value of the likelihood function; cd – the scaling correlation factor for the nested model difference test; TRd – statistics of differences; p – number of free parameters. Model 1 – model for France, Slovakia, Romania without restrictions, model 2 – model for France, Slovakia, Romania with restrictions (common factor loadings), model 3 – model for France, Slovakia, Romania with restrictions (common loadings and factor constants).

Source: own study.

Table 2. The model fit statistics together with values for χ^2 statistics for discrepancy test for the nested models used for the countries that meet the configuration equivalence criterion

Specification	No of parameters	χ^2	df	p	CFI	TLI	RMSEA	AIC	BIC
Model 4a	48	160.49	60	0.000	0.884	0.879	0.081	11622.4	11831.2
Model 4b	48	128.78	60	0.000	0.911	0.906	0.059	10090.1	10294.7
Model 5b	39	132.70	69	0.000	0.905	0.901	0.066	10091.6	10257.8
Model 4c	48	149.32	60	0.000	0.902	0.896	0.072	10787.9	10991.4
Model 5c	39	185.79	69	0.000	0.848	0.841	0.077	11160.6	11330.3
	Scaling factor	L	cd	TRd	p	Comments			
Model 4a	1.108	-5763.2				factor constants			
Model 4b	1.149	-4997.0				factor constants			
Model 5b	1.262	-5006.8	0.659	29.52	0.001	deviations residual			
Model 4c	1.152	-5345.9				factor constants			
Model 5c	1.228	-5451.3	0.823	256.15	0.000	deviations residual			

χ^2 – fit index, CFI – Confirmatory Fit Index, TLI – Tucker-Lewis Index, RMSEA – Root mean square error of approximation, AIC – Akaike Information Criterion, BIC – Bayesian Information Criterion, p – value, df – degrees of freedom. Scaling factor: L – the value of the likelihood function, cd – the scaling correlation factor for the nested model difference test, TRd – statistics of differences, p – number of free parameters. Model 4a – model for France and Romania with restrictions (common factor loadings), model 4b – model for France and Slovakia with restrictions (common factor loadings), model 4c – model for Romania and Slovakia with restrictions (common factor loadings), model 5b – model for France and Slovakia with restrictions (common loadings and factor constants and random errors), model 5c – model for Romania and Slovakia with restrictions (common loadings and factor constants and random errors).

Source: own study.

worsened with the empirical data. The RMSEA index increased to 0.083, and the TLI and CFI indexes fell below the acceptable level. It can be concluded that the model is not acceptable for the studied countries (it is not equivalent at the calibration level).

The fit of the subsequent model variants (models 4 and 5) was checked. The values of the model fit measures for France and Romania (model 4a) deteriorated compared to model 3, hence the model was not acceptable. In the case of the model for France and Slovakia (model 4b), the fit of the model to empirical data improved. RMSEA was 0.066 (acceptable level), and the TLI and CTL statistics were slightly above the acceptable limit. It can be concluded that the model is acceptable, with France and Slovakia having common factor constants, and the scalar equivalence between the two countries is maintained. In the case of the model for Romania and Slovakia (model 4c), compared to model 3, the fit of the model to the empirical data improved. Therefore, it can be assumed that for this pair of countries the model of attitudes towards online shopping is acceptable and comparable at the level of calibration.

The last stage of the analysis aimed to check whether the models of attitudes towards online shopping are fully equivalent (at the level of random errors). Assuming the compliance of loadings and factor constants as well as random errors, the adjustment of the model of consumers' attitudes towards online shopping in France and Slovakia (model 5b) to empirical data deteriorated slightly. The measures of fit do not exceed the acceptable standards, which means that model 5b is fully compatible and the data for France and Slovakia are fully equivalent. On the other hand, in the analysis of the fit for Romania and Slovakia (model 5c), assuming the compliance of the factor loadings, constants and random errors, the measures of fit deteriorated, exceeding the acceptable standards, and therefore it cannot be concluded that one is dealing with the full equivalence of the data concerning the attitudes towards online shopping in Romania and Slovakia.

The conducted analysis of results confirmed that the construct "E-consumers' behaviour in online shopping" is comparable in five of the six analysed countries (France, Portugal, Romania, Slovakia and Italy) only at the lowest level of equivalence (global equivalence). In those countries, e-consumers' behaviour is shaped by three factors: security of online shopping, quality of buying process and the need for a direct contact with the product and the salesperson. It turned out that not in all the countries were the chosen factors created by the same configuration of variables. A higher level of equivalence (configuration equivalence) was determined for three out of the five countries (France, Romania and Slovakia). Verification of the next level of research result equivalence was preceded with an evaluation of whether the structure of factors (the theoretical model of behaviour in online shopping) determined in the previous stage, was proved by the empirical data. The indicators calculated for each of the three countries proved the fit of the model (theoretical construct) to the empirical data, which justified taking yet another step in the evaluation of research result equivalence. The obtained values measuring discrepancies proved the

existence of a higher level of equivalence (the metric level equivalence) for all three countries. On the other hand, the highest level of equivalence (scalar equivalence) was true only for two countries – France and Slovakia.

Due to the weak equivalence of the indicators that create the construct "behaviour in online shopping", it is possible to compare the five analysed countries only on the level of dependence among variables. In the case of two countries, the construct is comparable enough (full equivalence i.e. scalar equivalence) to make comparisons not only on the level of dependence, but also on the level of average values (which means a higher level of analysis).

5. Conclusion

Equivalence was defined, in the field of research on an international scale, as an attribute of the results of the research conducted in a multicultural environment, which guarantees the coherence of measurement models for the analysed countries. This attribute is achieved by the adequacy of the subject-matter of research, sampling design, measurement tools, the process of direct research and the research results in the scope of the analysed countries/cultures (Jaciow, 2018).

Following the considerations presented in this article, it can be said that the assumed hypotheses may be considered as proper, as well as proving the hypothesis which presumed that the level of equivalence in international research depended on maintaining equivalence on the level of the subject of research, measurement tools, the process of data collection and sampling design. The conceptual and operational solutions including cultural similarities and differences in the analysed markets, and the resulting definition of the subject of research and the subsequent use of the measurement scales in the research tools already tested (culturally fit) by other researchers, and conducting the preliminary (exploring) qualitative and quantitative pilot research based on the sampling designs that were tailored to the specifics of a given country, will ensure equivalence on the interpretational level. On the other hand, the higher the level of equivalence on the interpretational level, the higher the coherence of the analysed constructs on the statistical level, and thus higher the level of equivalence of research results on the procedural level.

It can be said that the proposed model of maintaining equivalence in international market research does not conclude the research process, but rather initiates a new stage of understanding of that complicated problem. Identification of the model elements (including the model of maintaining equivalence on the interpretational level and also on the procedural level) may serve as a 'concept map', thus being a point of reference for further empirical study.

Maintaining research equivalence will be easier, the smaller the cultural differences among countries in which the research takes place, as well as the smaller the number of the comparable markets/countries/groups. The greater the number of the analysed countries, the greater the chance of measurement errors and the lesser

the comparability of results. Moreover, the greater the number of countries that are compared and the greater their diversity, the more difficult it is to achieve full equivalence of research results. Most often one deals with equivalence at the basic level (for many countries that are compared), and it is very difficult to achieve the level of total (full) equivalence. The difficulties in maintaining full equivalence of research is evidenced by the results of analysing the author's own research. In the group of the six analysed countries, the conditions of basic equivalence were met by five countries, the conditions of partial equivalence by three countries, and the conditions of full equivalence by only two of them. Finally, it is possible to consider as correct the hypothesis stating that the required condition for maintaining equivalence is to undertake, at every stage of the research process, actions aimed at minimizing the negative effect of numerous factors on the level of research equivalence.

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KONCEPTUALNY MODEL ZACHOWANIA EKWIWALENCJI W MIĘDZYNARODOWYCH BADANIACH RYNKU

Streszczenie: Artykuł koncentruje się na problemie zachowania ekwiwalencji w badaniach międzynarodowych. Przedstawiono w nim najistotniejsze czynniki determinujące porównywalność modeli pomiarowych w skali międzynarodowej. Zbudowany model zachowania ekwiwalencji międzynarodowych badań rynku wyjaśnia płaszczyzny ekwiwalencji (obiektu badania, pomiaru, narzędzi pomiarowych, procesu badań międzynarodowych oraz wyników badań). Artykuł zawiera także wyniki analizy statystycznej, której celem było sprawdzenie poziomu ekwiwalencji badań własnych autorki. Model zachowania ekwiwalencji opisany w artykule może być użyteczny dla badaczy i naukowców w ocenie porównywalności wyników badań międzynarodowych, które prowadzą (zarówno bezpośrednich, jak i pośrednich).

Słowa kluczowe: ekwiwalencja, badania międzynarodowe, rynek, badania, model, zachowania nabywcze online.