

## Perspectives of Integrative Interaction of the Economies of Asia-Pacific Region Countries in the Market of Medical Services on the Basis of Cross-cultural Analysis

Elena Viktorovna Noskova and Irina Matveevna Romanova

Far Eastern Federal University Russia, 690950, Vladivostok, Suhanova Street, 8

doi: <http://dx.doi.org/10.13005/bbra/1481>

(Received: 27 September 2014; accepted: 10 October 2014)

It was identified in the article that the increasing role of the integration and interaction leads from one side to the blurring of the distinction boundaries in a global scale, and from the other side it leads for increasing attention to national peculiarities of consumer behavior, which increases the relevance of cross-cultural research. The purpose of this research is to develop a methodological approach to assess the impact of cross-cultural differences in the consumer behavior in the market for medical services. In this research it was developed a model of culture that reflects the list of cultural property, the characteristics of the material environment, and the institutional environment. It was identified the features of the formation and modeling of culture-specific health care market. The proposed tool has been tested on the example of some countries in Asia-Pacific Region (China, Russia, Japan). The results of this research will have a great contribution to the effective integration of the economies of Asia-Pacific Region in the market of medical services.

**Key words:** Consumer behavior, Cross-cultural factors, Model of culture, Market of medical services.

---

The increasing level of integration and interaction of national economies leads to standardization, universalization of the consumer behavior of goods and services, while maintaining cross-cultural characteristics, the identity of nations. The implementation of activities by companies in different countries globally not only leads to economic integration, but also a blurring of perception stereotypes and models of consumer behavior.

It can be said that the significant amount of factors affects the nation health and the prevention of diseases. In solving these issues the important role plays the culture. It is necessary to say that although the ultimate goal of preventing

and curing disease and maintaining health in different countries is the same, however, the features of national cultures have different effects on the perception of health problems and solving strategies. The cross-cultural features affect the treatment process, the identification and understanding of the issues in doctor-patient relationship.

Different countries and cultures have developed their own original health care system, which are the result of the interaction of many factors, including social and technological development, technological advances and its availability, the influence of neighboring and cooperating countries. There are a number of factors which influence the formation and development of the health care market: the degree of urbanization and industrialization of the country, the system of government regulation, the demographic changes, the requirements for social

---

\* To whom all correspondence should be addressed.

security and so on. By understanding the role of culture in the development of diseases it will contribute to prevent it in the future, the development of approaches to the treatment of people of different cultures, to preserve the health of nations. All this proves the importance and relevance of cross-cultural research in the market of medical services.

Currently, the fundamental research in this area was conducted by scientists in various fields of knowledge: psychology, biology, ethno-psychology, economics, management, marketing, sociology, cultural studies, biomedical and other. Problems of cross-cultural research are reflected in the works (Andreeva, 2000; Aleshina, 2010; Aleshina, 2011; Zhuravlev, 2003; Poznyakov 2003, Vinokurov and Karnyshev, 2007; Berry *et al.*, 2007; Kuznetsova and Leontieva, 2012; Lebedev, 2010; Matsumoto, 2002; Tatarko 2012; Agarwal *et al.*, 2010; Cheung *et al.*, 2011; Dimitrova *et al.*, 2014; Gelade, 2008; Malda *et al.*, 2010; Moven, 1995; Gesteland, 2012; Harrison, 2006; Rigby *et al.*, 2009; Hofstede *et al.*, 2002; Owe *et al.* and others). In the researches of the above-mentioned scholars was recognized the specificity of the interaction of culture and identity, to develop methods for the research of the nature of its relationship, investigated the influence of culture on consumer behavior. The existing techniques of cross-cultural analysis are the product of a specific cultural environment, it does not have any versatility to adapt to the complex context of different cultures. The certain issues require further research for future investigation. The relevance of this research enhanced its social orientation.

### **Methodology**

The purpose of research is to offer methodological tools for researching the effect of cross-cultural differences in consumer behavior as the example of the medical services market of Asia-Pacific Region countries.

The development of methodological instruments of researching the investigation the influence of cross-cultural differences in consumer behavior begins with the definition of logic, forming the main hypotheses of the research, highlight the most important stages of the research, development and testing of the questionnaire of the survey of respondents. The final step is the testing of the proposed tools on the medical services of the Asia-

Pacific Region.

### **Formation the problem**

the problem which requires researching - to find gaps in the behavior of consumers of different cultures on the market of medical services in Asia-Pacific Region countries; the problem to solve - the adaptation of the marketing mix (commodity, pricing, marketing and communication policies) of companies under the specific features of the behavior of consumers of culture at the company's entry into international markets and/or changes in the target audience of the company by foreign consumers.

### **Formation of the goals and objectives of the research**

The purpose of this research – analyze the model of culture on the consumer behavior in the market of medical services of Asia-Pacific Region countries.

In accordance with this purpose, it was identified the following objectives:

- 1) to construct a model of culture with the characteristics of the market of medical services of Asia-Pacific Region countries;
- 2) to quantify the impact of culture on the elements of the model parameters of the model of consumer behavior on the market of medical services of Asia-Pacific Region countries.
3. Formation of the main hypotheses of the research  
Hypothesis 1: The model of culture is influenced by the system of cultural values, elements of the institutional and financial environments.  
Hypothesis 2: The preferences of consumers in a particular market for goods/ services depend on the particular model of culture of the country.
4. Determination of the form of the research project  
The exploratory research with the appropriate empirical methods is supported (refuted) by above-mentioned hypothesis.
5. The object of the research is the cross-cultural differences in the consumer behavior in the market of medical services. The boundaries of the research are the Asia-Pacific Region.
6. The methods of research: review of

academic researches and field research using quantitative and qualitative methods of data collection. The main directions of research:

#### **Investigation of cultural values**

The ideal values (individualism, equality, humanism, youth, social conformity; actual values (materialism, progress, achievement, success, achievement in work, success in various areas of life, efficiency and practicality, activity); personal values (self-fulfillment, excitement, a sense of achievement, self-esteem, a sense of belonging, respect for others, compassion, safety, fun and enjoyment, warm relationships with others and a commitment to a healthy lifestyle, a favorable climate for communication, food culture, caring for seniors (parents) physical perfection, beauty) (Aleshina, 2010; Matsumoto, 2002);

#### **Investigation of social (institutional) environment**

The level of political stability in the country, the level of government regulation in the healthcare sector, the level of diplomatic relations between the analyzed country and other countries, the level of education in the country, the level of influence of religion on the population of the country offer medical services, the level of influence of religious restrictions on the consumption of health care services;

#### **Investigation of the material environment**

The level of provision of medical institutions, the level of diagnostic centers, the level of rehabilitation facilities, the level of preventive medical institutions, the level of recreational resources, the level of technological and scientific environment, the use of modern technologies and equipment in health care facilities, the level of environmental security, the level of natural resources, the level of industrial development in the country, the level and quality of life of the population, the unemployment rate, mortality, morbidity of the population, the level of competition in the market of medical services;

Investigation of the consumer behavior in the market of medical services relating to the characteristics of the product (the range and quality of healthcare services, terms of service, equipping health facilities with modern equipment, qualified doctors and others), level of prices (discounts, the ability to pay for treatment and diagnostics in

installments/credit), marketing (the effect of the location of the medical institution at its option, the impact of the insurance companies on the choice of the consumer, the impact of the provision of medical services with the use of interactive methods to choose the medical institution) and promotion (brand clinics, the credibility of the communication channels, including the Internet, the information content of advertising messages and others).

#### **The sources of secondary information**

In order to develop tools for the field research it is necessary to conduct content analysis of secondary information of the researching problem. We can identify as the sources of secondary information the print and electronic, business and specialized academic publications; industry literature; Internet resources; analytical reviews.

#### **The collection of primary information**

The primary sources of information are the results of a questionnaire survey of healthcare consumers which was selected in Asia-Pacific Region countries. The purpose of the questionnaire is to obtain quantitative estimates for linking elements of the culture and of the consumer behavior in the market of medical services of Asia-Pacific Region countries.

#### **Determination of sample selection**

The sample selection for the questionnaire survey of 320 people was taken into account such parameters as: age, education, ethnicity, knowledge of Russian language.

#### **Analysis of data**

The obtained results of the survey were processed by statistical methods constructing a matrix conjugate elements of culture and consumer behavior parameters.

In developing the model of culture it was used matrix of culture of J. Moven (Moven, 1995) adapted to the market of medical services. The elements that make up the model of culture were presented in the form of the cultural environment (cultural values), the material environment and social (institutional) environment. The respondents' assessments of the cultural elements were carried out by Likert scale, where 1 – “strongly disagree”, 2 – “disagree”, 3 – “difficult to answer”, 4 – “agree”, 5 – “absolutely agree”.

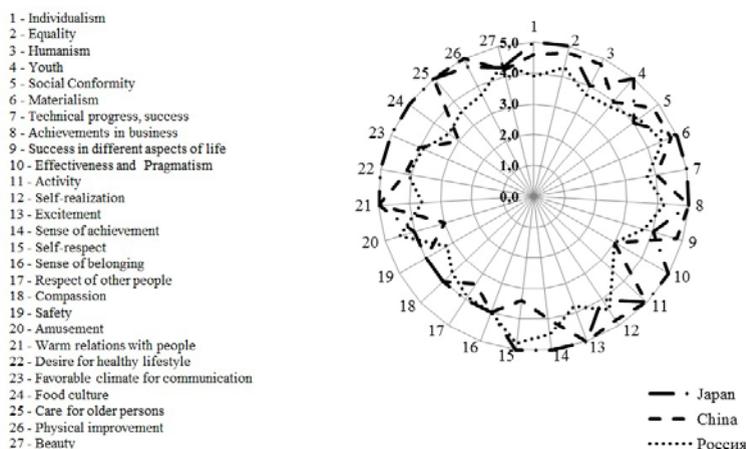
**RESULTS**

On the basis of the developed methodological approach and tools the authors conducted a questionnaire survey of the respondents of the countries of Asia-Pacific Region, the results of which allowed identifying the distinctive features of cultures in analyzing countries. The findings suggest that cultural values are largely important for people of all cultures (Figure 1).

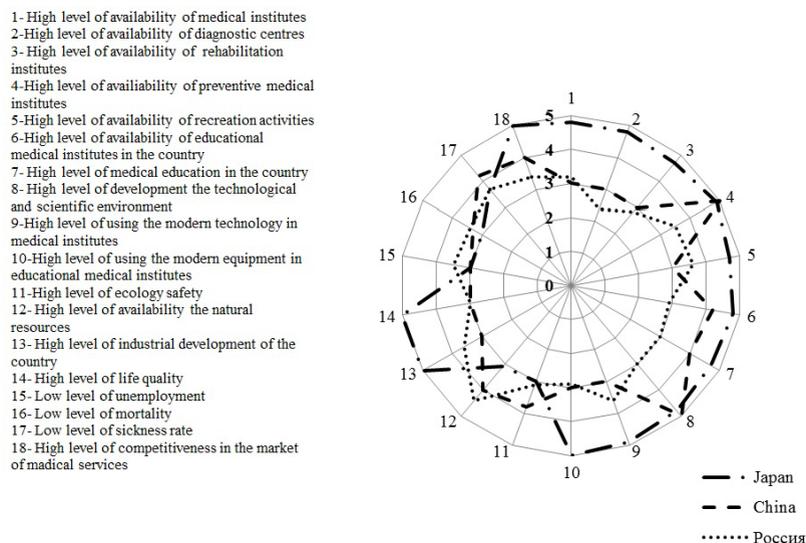
The largest gaps in cultural values were

observed in the parameters of efficiency and practicality: “self-respect”, “food culture” (in the more typical representatives of Japanese nation). The minimum gaps in cultural values in the respondents’ assessments of different cultures are marked by parameters: “materialism”, “self-realization”, “sense of belonging”, “respect for other people”.

The material environment is characterized by a significant gap in the estimates of the respondents compared with the cultural values (Figure 2).



**Fig. 1.** The distribution of the average evaluation of respondents with respect to cultural values in Likert scale in the context of the analyzing countries



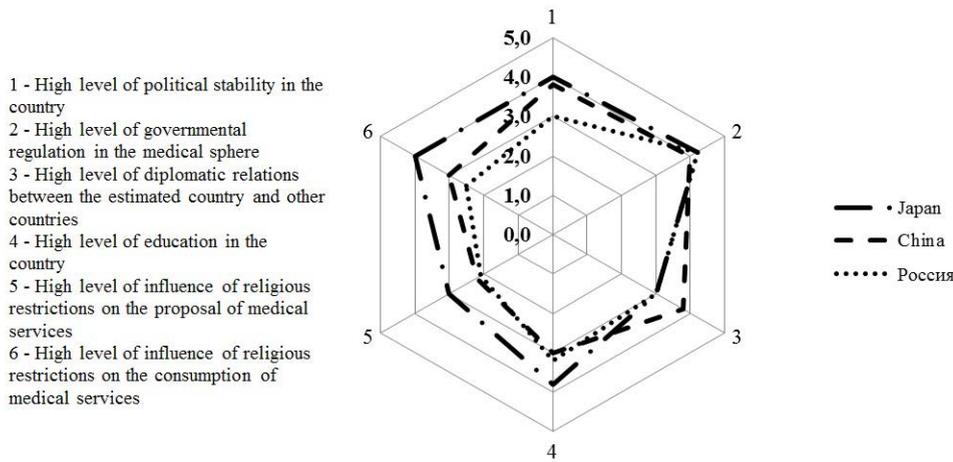
**Fig. 2.** The distribution of the average evaluation of respondents with respect to the material environment on Likert scale in the context of the analyzing countries

Japanese respondents reported a higher level of development of the material environment, which affects the formation of the cultural model, except for the position of “unemployment”, “mortality”, “level of sickness rate”, “level of environmental security”, in which they find it difficult to estimate that shows the peculiarities of national culture - the correctness of expression with respect to problematic issues.

The evaluation of the material medium by respondents of Russia and China do not differ significantly, this is especially characteristic parameters such as the material medium “level of

security of medical institutions, rehabilitation centers.” However, the estimations of Russian respondents for these items are lower, which generally affects the formation of the model of culture of Russians and as a consequence the model of consumer behavior and explains the high level of development in the Russian outbound medical tourism.

The respondents’ assessments of various countries in the parameters of social (institutional) environment are very similar, except for the measurement of the parameter “level of influence of religious restrictions on the consumption of medical services” (Fig. 3).



**Fig. 3.** The distribution of the average evaluation of respondents on the social environment on the Likert scale in the context of the analyzing countries

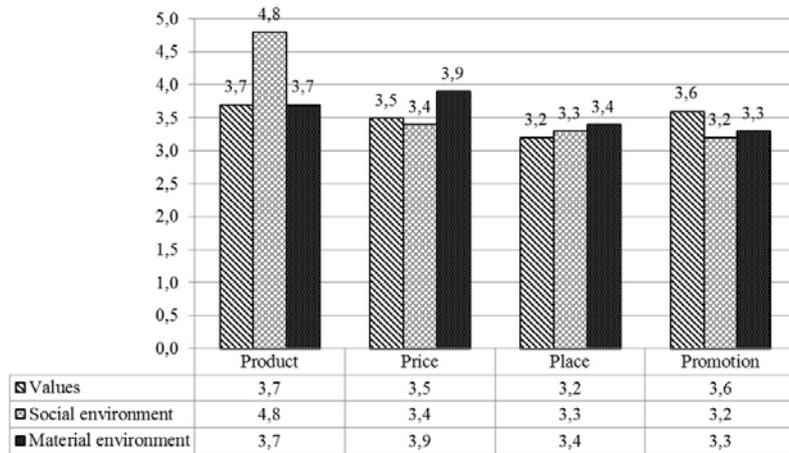
The lowest level of influence of parameters of the social (institutional) environment on the model of culture and, accordingly, the model of consumer behavior is characteristic of the respondents from Russia except for the parameter “level of government regulation in the medical sphere”. The highest level of influence is noted by respondents from Japan.

The hypothesis that the model of culture is influenced by the system of cultural values, elements of social (institutional) and the material environment was completely confirmed.

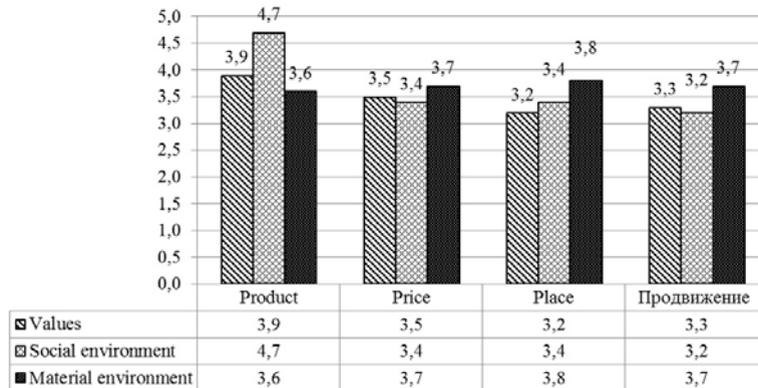
For confirmation of the second hypothesis, the authors on the basis of the results of the questionnaire used a statistical analysis by constructing a matrix conjugate elements forming

the model of culture, and of the consumer behavior in the medical service market of Asia-Pacific Region countries, which grouped on a set of marketing strategies and tools (trade, pricing, marketing, communications, etc). The results of the questionnaire were assessed by Likert scale (Figure 4-6).

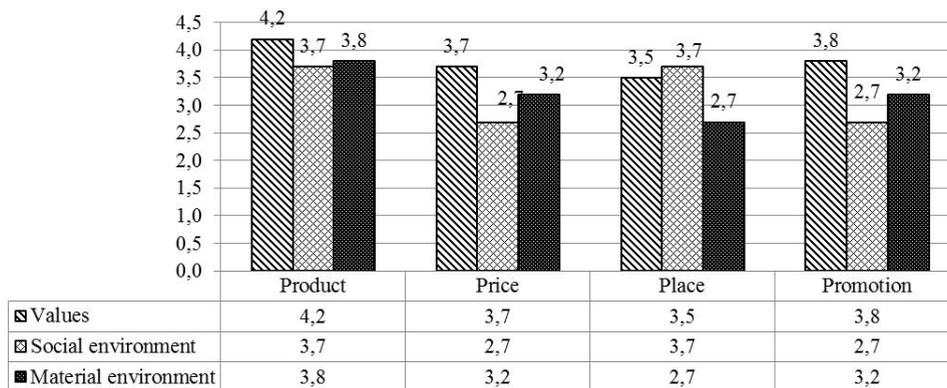
Analysis of the conjugation matrix of the consumer behavior and the elements of the model of culture in the medical services market in China shows a high degree of influence of cultural elements on the consumer behavior on the characteristics of selected product (medical service - Likert scale 3.7 - 4.8). The detailed characteristics of the selected product are determined in the survey instruments (questionnaire). In this



**Fig. 4.** Matrix of matching the consumer behavior (product, prices, marketing and promotion) on the elements of the model of culture in the market of medical services in China



**Fig. 5.** Matrix of matching the consumer behavior (product, price, distribution and promotion) on the elements of the model of culture in the market of medical services in Japan



**Fig. 6.** Matrix of matching the consumer behavior (product, price, distribution and promotion) on the elements of the model of culture in the market of medical services in Russia

research, the characteristic of the product includes: range, quality, terms of delivery of medical services, the provision of services with the use of modern technologies and highly qualified doctors with an individual approach to the patient. We should notice that in particular on the consumers' perception of promotion tools on the market of medical services (advertising, sales promotion, etc) is completely influenced by the cultural values, and consumer behaviors with respect to the choice of medical services at a certain price is strongly influenced by elements of the material environment (security medical facilities, modern equipment and technology).

Analysis of the conjugation matrix of the behavior of consumers and the elements of the model of culture in the medical market in Japan also shows a high degree of influence of cultural elements on the consumer behavior on the characteristics of selected product (medical service - Likert scale 3.6 - 4.7). However, the survey found that more on the features of the behavior of the Japanese elements affect the social environment that formed the model of culture (4.7 points on the Likert scale).

Analysis of the conjugation matrix of the behavior of consumers and the elements of the model of culture in the market of medical services in Russia as evidence of the influence of cultural elements on consumer behavior with respect to the choice of medical services (3.7 - 4.2 points on Likert scale). It should be emphasized that the elements of the physical and social environment is less affected by the formation of the model of culture and thus the model of consumer behavior on the selection of medical services, its price, and others. According to the respondents, this is largely explained by the insufficient development of the medical services market, the dominance of the public sector of medicine.

The hypothesis that the preferences of consumers in a particular product market depend on the model of culture in the selected country was completely confirmed during the research.

The developed conjugation matrix elements of the model of culture and characteristics of consumer behavior must be taken into account by international companies in the development of trade, pricing, marketing and communication strategies. The proposed contingency matrix can

be the basis for developing a matrix of cross-cultural marketing (the element of culture - a management decision).

## DISCUSSION

The origins of cross-cultural scientific research took their beginning in the studies of ethnographers who analyzed the human psychology in terms of this scientific discipline. Nevertheless, the cultural specificity of economic behavior is poorly developed area of researching. The relevance of these studies is enhanced by the requirements of practice, since the development of any national economy primarily depends on cultural factors. When we speak about the economic psychology, it should be noticed that the economics cannot be viewed in isolation from the state and the individual - from the culture, in spite of this, at the present stage there is no large-scale research that combine cross-cultural analysis in the economic behavior of individual consumers, businesses, states, and that a new demand scientific direction in this area.

The theme of Russian cross-cultural research (Zhuravlev, 2003; Kupreychenko, 2003; Lebedev, 2010; Vinokurov, 2007; Karnyshev, 2007; Andreeva, 2000) devoted to the issues of social and psychological characteristics of small ethnic communities, research cultural conditioning of economic behavior, studies of the influence of culture the perception of economic phenomena, and others.

Foreign cross-cultural research in the context of economic psychology appeared much earlier. The first studies were devoted to the universal dimension of culture, constructing a model of cultures (Hofstede, 2002; Inglehart, Baker, 2000). At the turn of XX-XXI century the cross-cultural research transformed into the next level - in the first place there is the analysis of the impact of culture on economic processes (confidence, mental models, beliefs, people in different cultures) (Harrison, 2000; Huntington, 2000). The beginning of the XXI century in this field of knowledge is characterized by the development of the methodology of cross-cultural research, the study of the effect of cross-culture consumer behavior, the development of a behavioral model of the consumer, based on the intrinsic value of the

individual. In this research, it was made the attempt to develop a methodology for studies of the effect of cross-cultural features in the consumer behavior in relation to a particular market, which contributes to the theory and practice of research in this area. The development of further research in this area should be focused on the definition of marketing incentives (product attributes, parameters, price, marketing, marketing communications) to the specific models of consumer behavior that are based on cross-cultural analysis.

### CONCLUSION

Based on analysis during this research it was developed:

1. A toolkit for analyzing the impact of cross-cultural differences in the consumer behavior in the market of medical services.
2. The features of the formation and construction of models of culture, including a list of cultural values, elements of social (institutional) and the material environment, adapted to the market of medical services of selected countries in the Asia-Pacific Region. Within the framework of cross-cultural analysis it revealed the differences in the culture of China, Russia and Japan. It is found that the model of Chinese culture is characterized by such cultural values as an achievement in work, activity, caring for seniors, increasing the values of physical perfection. The distinctive cultural values of Russians are materialism, equality, self-actualization, self-respect, amusement and pleasure. The cultural values representatives of the Japanese nation focused on achievements in their work, progress and success, the pursuit of a healthy lifestyle, food culture. In the estimation of the material among the respondents of different cultures there are significant gaps. There are high marks from respondents from Japan, and the similar and lower scores are presented among those from Russia and China. The social environment has the same effect on the formation model of culture in China, Japan, Russia, according to the opinion of the respondents.

3. The proposed methodological tools for assessing the impact of cultural elements on the consumer behavior in the market for medical services in Asia-Pacific Region countries (conjugation matrix), which allowed to determine the cross-cultural gaps in consumer behavior in different countries, which need to be considered for the effective integration of the economies of the Asia-Pacific Region cooperation in the market of medical services. Analysis of the matrix elements of the assessment of the impact of culture on the consumer behavior in the market of medical services in Asia-Pacific Region showed that the first elements of culture influence is manifested in the selection characteristics of the medical service (its range, quality, reputation, qualification of doctors and others). The elements of material culture among the models influence the choice of the price of medical services, and cultural values - especially on consumers' perception of promotion tools (brand clinics, the credibility of the communication channels, including Internet, the information content of advertising messages).

### ACKNOWLEDGEMENT

The authors acknowledge receiving support from state-funded research program of Russian Ministry of Education and Science. The results of this research were achieved within the frameworks of the governmental assignment of Russian Ministry of Education and Science in the sphere of scientific research during the researching assignment ! 26.1478.2014/K "The structural transformation of Russian Economy through the integration installation in the industrial markets of Asia-Pacific Region".

### REFERENCES

1. Aleshina, I.V., Marketing: cross-cultural problems and opportunities. Modern management: problems, hypothesis, research. *High School of Economics*. 2011; **2**: 94-103.
2. Aleshina, I.V., The opening innovations: cross-cultural factors in conditions of globalization.

- Innovation*. 2010; **7**: 30-35.
3. Berry, D., Purting A., Shigal, M., Dasen, P., The cross-cultural psychology. Harkov. Humanities center. 2007; 560.
  4. Vinokurov, M.A., Karnyshev, A.D., The beginning of economical ethno-psychology. Irkutsk. 2007; 436.
  5. Zhuravlev, A.V., Kupreychenko, A.B., Moral and psychological regulation of economic activity. M. Institute of psychology Russian Academy of Science. 2003; 436.
  6. Kuznetsova, E.G., Leontieva, D.A., Personal values: the concept of approaches to classification. Proceedings of OGU. Vol.10 (116) [http://vestnik.osu.ru/2010\\_10/3.pdf](http://vestnik.osu.ru/2010_10/3.pdf), 2012
  7. Lebedeva, N.M., The influence of cultural values on the assessment of the situation of social and economic behavior. Almanac of Modern Science and Education. 2010; **10**(41): 104-106.
  8. Matsumoto, D., Psychology and culture. M. 2002; 415.
  9. Tatarko, A.N., Individual values and social and psychological capital: cross-cultural analysis. Psychology. *Journal of High School of Economics*. 2012; **2**: 71-88.
  10. Economic Psychology. Socio-cultural approach. Redaction of Andreeva I.V. Piter. 2000; 512.
  11. Agarwal, J., Malhotra, Naresh K., Bolton, Ruth N., A Cross-National and Cross-Cultural Approach to Global Market Segmentation: An Application Using Consumers' Perceived Service Quality. *Journal of International Marketing*. 2010; **18**(3): 18-40.
  12. Cheung, F.M., Van de Vijver, F. J. R., Leong, F. T. L., Toward a new approach to the assessment of personality in culture. *American Psychologist*. 2011; **66**(7): 593-603.
  13. Dimitrova, R., Bender, M., Van de Vijver, F. J. R., Global perspectives on well-being in immigrant families. New York, NY: Springer. 2014; 291-310.
  14. Gelade, G. A., IQ, cultural values, and the technological achievement of nations. *Intelligence*. 2008; **36**(6): 711-718.
  15. Gesteland, Richard R., Cross Cultural Business Behavior: Negotiating, Selling, Sourcing And Managing Across Cultures. Copenhagen Business School Press. 2012; 400p.
  16. Harrison L.E., Huntington S.P., Culture matters: How values shape human progress. New York: Basic Books, 2000; 384 p.
  17. Harrison, L. E., The Central Liberal Truth: How Politics Can Change a Culture and Save It from Itself. Oxford University Press. 2006; 272.
  18. Hofstede, G.J., Pedersen, P.B., Hofstede, G., Exploring Culture: Exercises, Stories and Synthetic Cultures. Yarmouth, Maine: Intercultural Press 2002; 234 p.
  19. Inglehart R., Baker W., Modernization, Cultural Change, and the Persistence of Traditional Values. *American Sociological Review*. 2000; **65**: 19-51.
  20. Malda, M., Van de Vijver, F. J. R., Temane, M. Q., Rugby versus soccer in South Africa: Content familiarity explains most cross-cultural differences in cognitive test scores. *Intelligence*. 2010; **38**: 582-595.
  21. Moven, J., Consumer Behavior. 4-th ed. Macmillan Publishing Co., 1995; 862 p.
  22. Owe, E., Vignoles, V., Becker, M., Brown, R., Smith, P., Lee, S., Tatarko, A., Contextualism as an important facet of individualism-collectivism: Personhood beliefs across 37 national groups. *Journal of Cross-Cultural Psychology*. 2013; **44**(1): 24-45.
  23. Rigby, D. K., Gruver, K., Allen, J., Innovations in Turbulent Times. *Harvard Business Review*, June. 2009; 79-86.