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# Higher education in the globalized world: modern trends in management, funding and quality assurance

**Abstract.** The article studies the distinction between the approaches to management of educational systems and their funding within two civilizational dimensions - the Western and the Eastern ones. Through the example of specific countries that have provisionally been referred to within the groups which were previously considered to be polarized we have attempted to substantiate the developmental trends of higher education in the contemporary globalized world. The authors refute the traditional perception of both the Western and the Eastern educational models and prove that their transformation has a mirror nature: attributes of one of the models in the contemporary conditions become characteristic of the other. Resulting from these transformations, will there emerge a universal and simultaneously effective system of higher education and will this allow us to solve the problem of harmonizing of the material and the spiritual within the educational dimension in the conditions of the growing dehumanization of society? The authors have provided their view on the solution of the mentioned scope of study within the present article.

**Keywords:** Higher Education; Western Model; Eastern Model; State; Private Expenditures on Education; Socio-cultural Factors; Economic Factors; Transformation of Higher Education

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#### Вища освіта в глобалізованому світі:

#### новітні тренди в управлінні, фінансуванні та забезпеченні якості

Анотація. У статті досліджено відмінності підходів до управління освітніми системами та їх фінансування у двох цивілізаційних вимірах – західному та східному. На прикладі окремих країн, умовно віднесених нами до цих, як досі вважалося, «полярних» груп, обґрунтовано тенденції розвитку вищої освіти в сучасному глобалізованому світі. Автори спростовують традиційні уявлення про західну та східну освітні моделі й доводять, що їх трансформація має «дзеркальний» характер: ознаки однієї моделі в сучасних умовах стають характерними для іншої. Чи з'явиться в результаті цих трансформацій універсальна й водночас дієва система вищої освіти, і чи дозволить це вирішити проблему гармонізації в просторі освіти духовного й матеріального при наростаючій дегуманізації суспільства? Автори статті представили свій погляд на означену проблематику.

**Ключові слова:** вища освіта західного зразка; вища освіта східного зразка; державні витрати на освіту; приватні витрати на освіту; соціокультурні та економічні фактори трансформації вищої освіти.

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#### Высшее образование в глобализированном мире:

#### новые тренды в управлении, финансировании и обеспечении качества

Аннотация. В статье исследованы отличия в подходах к управлению образовательными системами и их финансированию в двух цивилизационных измерениях – западном и восточном. На примере отдельных стран, условно отнесенных нами к этим, как до сих пор считалось, «полярным» группам, обоснованно тенденции развития высшего образования в современном глобализированном мире. Наиболее характерным для западной и восточной систем высшего образования является сегодня поиск баланса между массовостью и качеством, что предполагает удовлетворение потребности рынка труда в высококвалифицированных специалистах при сохранении достойного качества образовательных услуг; государственным и частным финансированием университетов, и данные нашего исследования свидетельствуют о возрастании спроса на получение высшего образования при уменьшении финансовой поддержки государства (за исключением наиболее развитых стран); интернационализацией и изоляционизмом.

Авторы опровергают традиционные представления о западной и восточной образовательных моделях и доказывают, что их трансформация имеет «зеркальный» характер: признаки одной модели в современных условиях становятся характерными для другой. Так, массовость, интернационализация, нарастающая технизация, которые ассоциировались до недавнего времени с образованием западного образца, теперь все больше проявляются на Востоке. В то же время, элитаризм, «закрытость», нерушимость традиций, стремление к духовным основам, присущие восточным образовательным системам, актуализируются на Западе.

Появится ли в результате этих трансформаций универсальная и одновременно действенная система высшего образования, и позволит ли это решить проблему гармонизации духовного и материального в пространстве образования при нарастающей дегуманизации общества? Авторы представили в этой статье свой взгляд на решение обозначенной проблематики.

**Ключевые слова:** высшее образование западного образца; высшее образование восточного образца; государственные расходы на образование; частные расходы на образование; социокультурные и экономические факторы трансформации высшего образования.

#### 1. Introduction

Mental distinction between the two civilizations - the Western civilization and the Eastern one - traditionally manifested itself in the attitude of the individual to the surrounding environment. The Westerners are focused on its active transformation and, correspondingly, material production has become the very cause and the driving force for the development of this civilization, whereas the Easterners perceive the surrounding world primarily as the shell for his inner, spiritual world, hence, following the meditative pattern of thinking, immersion into individual feelings and emotional experiences, sensitive and respectful attitude to the nature. The rational and the irrational are essential features that, until recently, constituted the opposite poles of these two civilization dimensions. However, in the conditions of the contemporary diversified and multipolar world, where a cultural synthesis occurs and economic, legal, cultural interrelations between the countries acquire the transnational nature, the traditional division into the Western culture, on the one hand, and the Eastern culture, on the other, gradually loses its relevance.

Education in the modern globalized world is a complex process of forming the individual which incorporates an uninterrupted cross-cultural dialogue aimed not only at the perception and adoption of «own» cultural norms, values, patterns of behaviour, but also at «others» of such kind, belonging to other cultures. Correspondingly, established educational paradigms undergo changes as well, which potentially stipulates the appearance of new forms and kinds of educational activity, new models of educational management, new methods of financial support for education at the nationwide and international levels.

There is no doubt that globalization of the economy transforms educational systems within all national dimensions. Nonetheless, the outcome of such transformation remains under investigated. Mutual expansion of diverse cultures in the field of education may bring about varied outcomes: mutual enrichment, mutual obliteration, renouncing the «own» and completely accepting the «other» and, possibly, the emergence of the new hybrid educational model that would be considered universal. Which of these scenarios appears the most likely with regard to the development of the system of higher education in the coming decade? This is indeed the question which

we would attempt to answer in the course of the analysis of contemporary trends in management, funding and quality assurance of higher education in the counties representing the Western and the Eastern developmental models.

For the purpose of a comparative analysis of contemporary models of higher education, we conducted a study on the practices and development indicators of the relative sector in 13 countries, 7 of which are situated in Western Europe, Southern America and Northern America, while the other 6 belong to the southern and south-eastern regions of Asia. Within each of these groups, we singled out two subgroups: the first subgroup comprised large countries with a population from 100 to 300 million people, the other represented countries with a population from 5 to 9 million people. Countries within each of the subgroups show considerable differences according to both the level of the economic development and the socio-cultural and religious traditions adopted in these areas.

As part of the study, we implemented the data from the Human Development Index by Country, 2019, which is formulated as a composite indicator for the assessment of long-term progress of human development in the country within three major dimensions: 1) a long and healthy life; 2) access to knowledge; 3) decent standards of living. Further to it, we conducted an analysis in relation to trends regarding the change of these indicators in the studied countries in the period between 1990 and 2018. We utilized the indicators of the Times Higher Education World University Rankings (hereinafter - Rankings THE) calculated according to the methodology by the British weekly magazine Times Higher Education and with the participation of the Thomson Reuters media group. According to the ranking data, we conducted a analysis was conducted in respect of the number of universities from the studied countries which are included into the list of one hundred and top five hundred higher educational institutions in the world. Further, the percentage of a share of universities from the specific country within the top hundred universities has been taken into account.

To establish the correlation between the level of quality of higher education in the country (asserted by the data of Rankings THE) and the dynamic of economic development, the indicators of GDP (in constant prices) in their comparison over the last 5 years (2014-2018) were utilized.

#### 2. Brief Literature Review

Investigating the problems of higher education and possible directions for its improvement in the contemporary dynamically changing world is highly relevant to all professional sectors without exceptions. The quality of knowledge obtained by higher educational institutions is a determinant factor to the development of the economic potential of the country, and growth of wealth, living standards and safety of the population. Such factors are referred to by M. Carnoy, P. Loyalka, M. Dobryakova, R. Dossani, I. Froumin, K. Kuhns, J. B. G. Tilak & R. Wang (2013); R. Borck & M. Wimbersky (2014).

Higher education in the regional context, particularly in the countries of East Asia, has become a centerpiece of study in the works by Q. Ren & Q. Fu (2010); Li Fengliang (2012); K. H. Mok, W.Y.W. Lo & J. T. Lee (2015); S. Zhou & Ch. Monit (2017); G. J. Borjas, K. B. Doran & Y. Shen (2018). The Western model of higher education in the context of globalization of economy is showcased in the studies by such contemporary researchers as E. Hazelcorn (2015) and J. Ritzen (2016).

A particular interest to our study may be traced to the article by D. B. Johnstone, (2015) «Financing higher education: Worldwide perspectives and policy options». As the author argues, the diverging trajectories of very rapidly increasing resource needs and faltering revenues from state budgets have to be met by solutions on the cost side, or on the revenue side. The cost-revenue squeeze and the resulting institutional and system austerity, as well as some of the so-called solutions to these dilemmas, can have deleterious impacts on the quality and capacity of universities and colleges.

Furthermore, global trends with regard to funding of higher education have been thoroughly investigated by P. Scott (2005); B. Jongbloed, F. Kaiser & Don F. Westerheijden (2018); J. Denning, L. Page, S. Kehoe, B. Castleman & G. A. Sahadewo (2019). The analysis of the research base, according to the provided scope of research, ensures evidence to conclude that presently there exists a lack of scientific works that would comprise a complex research into the developmental trends of higher education within the context of the dialogue of cultures in the contemporary globalized world.

**3. The Purpose** of the article is to conduct a comparative analysis of modern trends in management, funding and quality assurance of the higher education in the countries of both the Eastern and the Western models of education and identify the most topical aspects and prospects for the development of educational systems at both the international and national levels.

#### 4. Results

### 4.1. Sociocultural and economic factors of transformation of the Western and the Eastern models of higher education

#### 4.1.1. The Western model of higher education

The Western educational space is distinguished by a complex structure with the so-called «centres» of various degree of significance and the «peripherals». The USA has long remained one of the most powerful higher education centres of the Western world.

Higher education in the USA is under the patronage of the states, not the federal government. Therefore, with few exceptions (e.g. military academies), management of the public higher education is carried out at the state level. Approximately 57% of colleges and universities, which comprise 23% of all students, are privately operated. The federal government is entrusted with two vital functions, identical both for state and private educational institutions - financial aid to students in the form of government-guaranteed and subsidized loans. Apart from it, the federal government may provide financing to particular research foundations, primarily in the fields of physics and medical science.

Management of higher education in the private sector falls mainly within the scope of the competence of the boards, commonly referred to as the "board of trustees". Such boards are created with the participation of citizens who are capable of providing charitable financial support to universities and are influential enough to muster such support from other sources. In public educational institutions the authority is concentrated in the hands of the so-called "Boards", the members of which are appointed by the governor and are approved by the state legislature. The most common management principle is based upon the multicampus system when territorially unified public educational institutions independently formulate their academic mission, educational programs and teaching methodologies as well as the internal policy.

Among the positive aspects of the American system of higher education, it is necessary to state the following: an inextricable link between education and science (universities in the USA serve as powerful scientific research centres with academic field being inseparable from scientific research); orientation toward acquiring broad practical skills, which allows to quickly obtain a decent position according to the chosen field of study and establish a career; independence and freedom of choice granted both to every student (individual educational programs, selection of teachers, simplified procedure of transfer from one university to another, etc.) and directly to educational institutions serving as autonomous and self-sufficient centres which provide educational services.

Among the major drawbacks of the American higher education system, experts highlight an excessive professional orientation of the education and narrowly focused specialization of the educational activity that eventually results in lower levels of general educational attainment, open-mindedness and creativity of thinking of future professionals. Nonetheless, we deem it disputable to qualify such an approach as the drawback of the American education taking into consideration mental landmarks inherent in the Western culture. In particular, this concerns the pragmatic approach, the rational perception of reality, activity-related, goal-oriented thought and behavioural pattern.

Brazil occupies the leading position according to economic growth rate in Southern America. Immense natural resources, absence of military conflicts in the continent and continuous, though modest, growth of GDP - from 0.5% in 2014 to 1.1% in 2018 - all of these factors contribute to growing interest towards the country on the part of investors eventually exerting a positive impact upon the country's economic development. Despite the fact that until the mid-20<sup>th</sup> century the majority of the Brazilian population was illiterate, the situation started to undergo drastic changes from 2000s. Currently, the state allocates approximately 5% of the GDP for education which corresponds to similar expenditures in the USA and other leading European countries.

Brazil's count of private higher educational institutions reaches nearly 80%. At the same time, federal and national universities remain the most sought-after and prestigious, prioritizing engineering, technical and medical fields of study. The state provides full funding of these educational

institutions, therefore the tuition there is free. The official language of teaching in Brazilian universities is Portuguese, which complicates the inflow of foreign students. Such relatively «closed» nature of the Brazilian higher education system towards foreigners is not particularly detrimental to the country, taking into account that it suffers a shortage of qualified specialists with higher education.

The higher education system of Mexico incorporates 4.3 million students (65.5% - in public higher education institutions, and 34.5% - in private). The president of the country has launched an initiative to be realized until 2024, ensuring that all school graduates would have an opportunity to enter higher education institutions. Simultaneously, it remains unclear which specific steps would be undertaken in order to implement such an initiative. For instance, over 90% of the state budget for higher education in Mexico is represented by government subsidies. The government attempted to reduce the number of state higher educational institutions by 32% in 2019, which provoked discontent and protests on the part of the academic community. Eventually, the reduction affected all non-autonomous public educational institutions under the authority of central education administration bodies, while the total budget costs for higher education in 2019 decreased by 6.2%.

In his electoral programme, the President of Mexico López Obrador, elected for the term of 2018-2024, promised to open 100 new universities as well as to grant full autonomy to private educational institutions relieving them of any government supervision. Such practice has not yet been common and this kind of independence was being previously granted in each specific case personally by the president. This trend affirms the probability of expansion of higher educational institution networks with a concurrent decrease in the quality of teaching within such institutions. The other trend lies in focusing the resources only on student scholarships with simultaneous restrictions of funding for state educational institutions, post-graduate study programmes, research activities and development of innovative technologies within the framework of international programmes. In the long-term perspective, this may lead to a decline of the higher education in this country and a decrease in its competitive capacity in the international market of educational services (A. Maldonado-Maldonado & R. Rodriguez Gómez, 2019).

Norway and Switzerland are relevant within the context of the stated scope of our research as non-EU countries.

For decades, Norway has been steadily occupying leading positions in various rankings of economic and sociocultural development, particularly in the Human Development Index. The participation of the state in funding the higher education has its peculiar features. For instance, the lion's share of university funds consists of government (parliamentary) grants. Grant money allocated by public and private funds, industrial and municipal agencies is predominantly directed at funding research activity in the universities. Presently, the country utilizes the existing practices of allocation of parliamentary grants for each university separately. The budget for educational institutions is drawn up as a standalone line in the annual national budget. The determining factor for establishing the amount of funding is the number of students.

It is exemplary that, in contrast to the majority of European countries, the higher education in Norway is tuition-free for all students, however students must make mandatory financial contributions for membership in social welfare organizations which grants them certain privileges. On entering the university, the applicants must prove their financial capacity to support themselves throughout the complete period of study.

The country has an efficient and operational system of obtaining the loan or scholarship from the state fund by foreign students. Nonetheless, the necessity to provide for the minimum living wage with high standards of living in Norway is a significant obstacle to foreigners. Correspondingly, an insufficient inflow of intellectual human resources from other countries may eventually exert a negative impact upon the quality of higher education. To exemplify, in the past five years, none of the Norwegian universities entered the top hundred, according to Rankings THE. However it should be noted that 4 out of 32 higher educational institutions of the country are permanently among the top five hundred higher educational institutions of the world.

Switzerland with its population of 8.5 million has a relatively large number of higher educational institutions - 37. Higher education in the country is a prerogative and a subject of financial concerns of the federated states - cantons, each of them seeking to obtain as much funding as possible namely for development of education, particularly the technical facilities of educational institutions. At the same time, the tuition fee for higher education is relatively low in comparison to other

European countries while the standard of living, similar to Norway, is immensely high. As a consequence, the supply in the market of educational services in the nearest future may exceed the demand that would make the sector unprofitable and loss-making. Nevertheless, Switzerland occupies the leading position with regard to the quality of the higher education among the countries representing the Western model, studied within the scope of this paper. It must be emphasized that for five consecutive years ten higher educational institutions of Switzerland have remained in the top hundred universities of the world, according to Rankings THE.

The Irish system of higher education sparks the interest of experts for a number of reasons. First and foremost, increased investment into the educational sector with simultaneous scale-up in the rate of production modernization has played a prominent role in the emergence of the so-called Ireland's economic miracle. Secondly, against the background of the rapid ageing of the West-European population, the demographic processes of national rejuvenation (the average age of an Irish citizen is 28-30 years old), along with an increase in the Human Development Index by 13 points in the last decade, have intensified in Ireland. One of the factors leading to such an increase turned out to be the large-scale return of descendants of Irish emigrants to their historical homeland during the period of economic boom. Thirdly, the experience of delegating the functions of higher education administration to the Higher Education Authority (HEA), an intermediary organization, is especially noteworthy. Taking over some of the functions linked with solving operational issues, HEA guards the ministry of education against accusations of lobbying political interests. The agency conducts independent monitoring and expert assessment of activities of educational institutions, consolidates statistical data and conducts quality assessment of educational programs.

Extending autonomy to higher educational establishments has naturally led to the reconsideration of funding principles. As early as in 1990s, Ireland, similar to Finland, transitioned from the system of «one-off payments» to flexible grant-based funding and independent planning of their budget by universities. Presently, universities and institutes of technology create their own «campus companies» which supply the market with diversified products - from research findings and educational materials to educational services.

One of the secrets of the Ireland's economic miracle was the attraction of investments into the high technology sector and, simultaneously, substantial investment into IT education. The focus was placed on enhancing the status of institutes of technology, increasing the number of technical and engineering subjects, establishing interaction between IT-corporations and higher educational institutions. The Irish educational model is outstanding due to its successful blend of traditional and modernization constituents. It represents a fusion of innovative approaches to education which serves demands of the market and complies with the traditions of classical European higher education.

Consolidated data with regard to the correlation between qualitative and quantitative indicators that display the state of development of higher education in the Western-model countries, studied within the scope of this research, are provided in Table 1.

Table 1: The state of development of higher education in the Western-model countries

Country	Population,	Human Development	Total qty	Rankings THE	Rankings THE	Share of HEIs	GDP growth rate,
	as of 2019	Index (HDI), 2019 /	of HEIs*	2019/2015	2019/2015	in top 100	in constant
		position in rating	2019	(500)	(100)	Rankings THE	prices,
		(trends, 1990-2018)				2019, %	2018/2014, %
USA	329,064,917	0.924/13 (-3)	2,088	121/122	40/35	2.01	2.9/2.5
Mexico	127,575,529	0.774/73 (+2)	1,642	0/1	0/0	0/0	2.0/2.8
Brazil	211,049,527	0.754/78 (-3)	1,039	2/2	0/0	0/0	1.1/0.5
Norway	5,378,857	0.953/1 (0)	32	4/4	0/0	0/0	1.3/2.0
Switzerland	8,591,365	0.944 /2 (0)	37	10/10	3	8.11	2.8/2.5
Ireland	4,882,495	0.938/4 (+13)	62	6/7	0/0	0/	8.3/8.5
Finland	5,532,156	0.92/15 (-2)	38	8	1	2,63	1.7/-0.6

Note: \* HEI = higher educational institutions

Source (Table 1 and Table 2): Compiled by the authors based on data by

HDI by Country 2019: http://worldpopulationreview.com/countries/hdi-by-country

HDI trends, 1990-2018: http://hdr.undp.org/en/content/table-2-human-development-index-trends-1990-2018 Rankings THE: https://www.timeshighereducation.com/world-university-rankings/2020/world-ranking#!/page/0/length/25/sort\_by/rank/sort\_order/asc/cols/stats

Total qty of HEIs: https://www.whed.net/home.php

GDP growth rate: https://knoema.ru/atlas/ranks/Темп-прироста-ВВП-в-постоянных-ценах

## 4.1.2. The Eastern model of higher education (on the example of countries of southern and south-eastern regions of Asia)

Countries of Asia have developed fairly distinct though, in many respects, similar models of higher education development. Distinctions are stipulated, in particular, by religious traditions. For instance, a considerable impact upon the formation of educational strategies in China and Japan is exerted by Confucianism; for Hong Kong and Singapore, a large diversity of religious denominations is inherent - Buddhism (predominantly), Daoism, Christianity, Islam; the majority of the population of the Philippines is catholic (83%), while Bangladesh is nearly 90% Muslim. The listed countries (or their administrative regions) differ by the level of income per capita as well. For instance, Japan, Hong Kong and Singapore, in accordance with the classification of the World Bank, belong to high-income regions; among upper-middle and middle-income regions are China and Philippines; the lowest-income region from the listed countries is Bangladesh. The countries selected for research differ, among other aspects, by the size of population: Japan, the Philippines and Bangladesh have population from 100 to 160 million people; Hong Kong, Singapore and New Zealand - 5-7.5 million people. Taking into account its considerable gap in the population size, the state of higher education development in China was analyzed separately (Table 2).

Table 2: The state of development of higher education in the Eastern-model countries

Country	Population,	Human Development	Total gty	Rankings THE	Rankings THE	Share of HEIs	GDP growth rate,
,	as of 2019	Index (HDI), 2019 /	of HEIs*	2019/2015	2019/2015	in top 100	in constant prices,
		position in rating	2019	(500)	(100)	Rankings THE	2018/2014, %
		(trends, 1990-2018)		, ,	, ,	2019, %	,
China	1,433,783,686	0.752/85 (+7)	709	17/11	3/2	0.33	6,6/7.3
Japan	126,860,301	0.909/19 (0)	765	12/11	2/2	0.26	0.8/0.4
Philippines	108,116,615	0.699/112 (+3)	1328	1/0	0/0	0/0	6.2/6.1
Bangladesh	163,046,161	0.608/133 (+5)	120	0/0	0/0	0/0	7.9/6.3
Hong Kong	7,436,154	0.933/8 (+6)	11	6/6	3/2	27.27	3.0/2.8
Singapore	5,804,337	0.932/9 (-1)	9	2	2/0	22.22	3.1/3.9
New Zealand	4,783,063	0,917/14 (+4)	29	6	0/0	0	2.8/3.1

Note: \* HEI = higher educational institutions

Source: similar to Table 1

Japan became the first country of the region where the concept of mass higher education was realized back in 1970s. Educational models implemented there largely corresponded to the established models of the US higher education. Innovations concerned primarily the standardization of the educational institutions, stimulation of private investment into the system of education and simplification of rules and regulations for opening educational institutions. As a consequence, the number of higher educational institutions grew rapidly, correspondingly allowing the number of students and, subsequently, qualified specialists to increase. For example, while in 1930s-1940s only 1-3% of school graduates entered universities in Japan, their quantity in 1960s grew to become 10%, and in 1975 it reached 27.5%.

However, an increase in the number of universities led to a subsequent decrease in the quality of education which became evident in the second half of 1990s. The economic depression and deterioration of financial situation in the society in general have become an indirect acknowledgment of the fact that the system of higher education requires reforms. The educational reforms of 2003-2004 became known as the «big bang» and were subject to strong criticism within academic circles at the start. The government strengthened control over the establishment of new higher educational institutions, implemented standards of their economic stability and optimized the procedure of state subsidizing of private universities.

Presently, the higher education in Japan is represented by 765 educational institutions divided into three types: national (approximately 90), which are fully funded by the state (two of them - the University of Tokyo and Kyoto University - rank among the three best universities of the country and the top hundred universities of the world, according to Rankings THE); public, the key distinction of which concerns the structure of management and funding (administrative functions in these universities are entrusted to prefectures, according to their location, while their budget is formed with taxes paid by local residents; private, the number of which is the largest (around 600), while education fees there are the highest.

The current policy in the domain of higher education in Japan is aimed at expanding the opportunities to obtain education for various social groups throughout their entire life. The state seeks to reach reasonable compromise between the scope of coverage, the amount of funding and the quality standard of higher education. This way, state funding in Japan is decreasing, while the state is directing considerable resources at improving the quality of educational services in the limited number of national universities, hence improving their status and relevance at the international level. In respect of private universities, the state renounces strict regulation of their activity; it also declines their financial support.

A vivid example of such an approach may be found in the programme «Top Global University» founded in 2014 and set to operate until 2023. For the purpose of its implementation, 37 universities were selected on a competitive basis. The objective of the project is internationalization, attracting foreign students and professors, improving the ranking of Japanese universities within international ratings by enhancing the quality of education. It is expected that no less than 50% of professor positions in those universities are to be filled by foreign specialists, while teaching in English language must span not less than 20% of the educational program contents (T. Kim, 2016). The state consistently allocates considerable funds to promote this strategy which contributes to the demand for these particular universities in the international market of educational services.

In the 21<sup>st</sup> century, South Korea and Singapore have become the regional leaders for enrolment in the higher education with 83% and 87% of secondary school graduates entering higher educational institutions, correspondingly.

Since 1992, Singapore has been implementing the programme «Intelligent Island» based upon the principle of investment into educational institutions in compliance with highest international standards. Furthermore, the policy of promoting competition and cooperation between the state and the private sector in the domain of higher education has proven to be considerably effective.

The government strategy «Intelligent Nation» stipulates the use of competitive advantage of Singapore which consists in a considerable number of highly educated population (85% of secondary school graduates continue their education in the universities). Within the scope of this strategy, the «Smart City» programme has found its realization along with the promotion of innovations within creative sectors of industry with the purpose of creating a comprehensive national innovation system. A distinctive feature of the Singaporean model of educational management consists in directing government funding primarily to institutions engaged in technology-related education, represented by 6 out of 9 active universities. Furthermore, two out of the 6 institutions are among the top hundred universities of the world, according to Rankings THE. Students from all over eastern and south-eastern regions of Asia aspire to study at universities of Singapore. World's leading higher educational institutions are realizing educational and research programmes jointly with Singaporean universities, taking it further by opening branches of their campuses in Singapore. Foreign professionals are guaranteed sizeable remuneration owing to the efforts by the government (B. Jessop, 2016).

An example of a successful initiative concerning the development of higher education is the creation of a cluster of business schools and consulting companies named Nepal Hill conceived as a centre of leadership development. As an example, one of the largest transnational companies Unilever is planning to hold over a half of training sessions for their employees from all over the world, namely in this cluster ensuring direct tight cooperation with Singaporean universities.

The Singapore Talent Development alliance project, initiated by the Singaporean government in 2013, deserves attention in view of its objectives to provide within its scope the educational services and conduct training workshops relevant to the Chinese labour market. This way, the government of China is planning to enhance the educational level for over a million of government officials and technical workers, while Singapore is capable of providing adequate educational services with regard to a range of professional development areas (J. T. Lee, 2015).

Hong Kong too aims at conceiving the educational hub with the prospects of promoting it to the international level. The most favourable conditions for attracting students from southern China, Japan and Singapore are being created in the region. Since 2015, the government of the mainland China and Hong Kong are taking active measures for the purpose of integration of the «Pearl River delta» manufacturing hub as well as liberalization of trade in the region. These processes offer broad opportunities for the development of higher education in Hong Kong: on the one hand,

to export its educational services, and to influence the social and economic development of the southern China, on the other (J. T. Lee, 2015).

Overall, China presently wields the most extensive system of higher education around the world. While in 1999 university graduates constituted only 3.8% of the total employed population and the percentage of workers without any education amounted to 11%, in 2002 the situation changed drastically when the state funding of the educational sector increased by 1.5 times. Correspondingly, the number of applicants to universities increased to 30% in 2012, while in 2019 this number reached 50%.

The higher education in China - both with regard to public and private educational institutions - is fully paid by the student. Successful school exams allow selecting a university of a higher category. It must be noted that tuition fees charged by a higher educational institution at the end of 1980s was purely symbolic and did not exceed 200 CNY per year. After the local authorities were granted the right to independently determine the amount of tuition fee to be charged by higher schools, it increased substantially and currently constitutes CNY 4,000-10,000 per year, which amounts to USD 500-1500. Despite the government-level claim about the mass character and accessibility of higher education, hardly every Chinese family is financially capable of providing for the education of their children at the university. Apart from this, there exists one more impediment that renders the equitable access of citizens to higher education impossible. It is the still existing nation-wide system of registration of citizens according to their place of residence. Higher educational institutions for the most part refuse to accept students without local registration which consequently leads to inequality of opportunities to obtain education between residents of cities and rural regions as well as between school graduates from large cities and provinces (S. Zhou & M. Cheung, 2017).

Philippines plan to reach the level of economic development allowing them to attain the rank of an upper-middle income country by 2022. For this purpose, the Philippine Development Plan 2017-2022 was elaborated with implications for a significant decrease in the level of social inequality and the poverty rate among the population. Within the scope of this policy the reformation of higher educational system is conducted, which should bring about the improvement in the quality of education. In 2019, the number of higher educational institutions in the country constituted 1,328, among which approximately 30% was represented by public institutions (one of them listed in the ranking of top 500 universities of the world). In 2017, President R. Duterte announced the implementation of full funding for state-owned universities which allowed access to education for the poorest social groups. Similar to other countries in the region, the Philippines seek to internationalize their educational system. With this particular objective in view, a project of cooperation between the Commission on Higher Education (CHED) and the British Council is currently under realization, stipulating the creation of transnational educational hub in the country. For this purpose, two national and two private higher educational institutions were selected as base institutions for the realization of educational and scientific projects jointly with the United Kingdom throughout 2018-2019. From both sides, the project was funded with over GBP 1 million and during two years of its realization this amount was doubled. According to the outcomes of implementation of programmes elaborated in the course of this project, it is planned to award the graduates with degrees from British universities (B. Smith, 2017).

The higher education in Bangladesh, where the literacy rate of the population is the lowest across the entire southern Asia, has three main sectors - public, private (with English language of teaching) and religious. Having obtained education in the second sector specialists predominantly leave for abroad.

The management of higher education in Bangladesh is performed by the University Grants Commission which oversees the distribution of financial flows among educational institutions. Colleges, which provide opportunity to obtain higher education, are under the patronage of national universities. Overall, universities in this country are autonomous establishments managed by such authorities as the academic council, the syndicate or the senate. A significant problem lies with the fact that the number of higher educational institutions in the country is insufficient to provide the opportunity for education to all potential applicants who attested the required level of knowledge.

Specifics of the model of higher education funding in New Zealand lies in the sufficient financial autonomy and considerable government budgeting of higher educational institutions. Simultaneously, management of the entire educational system of the country is carried out by the Ministry

of Education which approves funding programmes, develops educational programs, determines overall educational policy, and performs supervisory and controlling functions. Direct development of funding programmes is overseen by the Tertiary Education Commission which functions in tight cooperation with the government and the Ministry of Education. The correlation between individual and state contribution into the tuition fee is 25% to 75%. It is exemplary that the share of state funding cannot be decreased.

With regard to the scope of coverage of the population by higher education, New Zealand has reached the level of the developed countries of the world - 33%. Such a high rate was achieved through the policy of open access and continuous education, which provides the opportunity to obtain higher education in the most favourable conditions. For instance, a significant consideration is given to evening and correspondence modes of education which allows to study in off-work hours. Universities are integrated into the system of continuous education through their centers of further training. Multiple professional and civic associations offer various educational programmes for adults. The efficiency of such an approach influenced the improvement of New Zealand's indicators in the Human Development Index over the past five years by 4 positions (the country was the 16<sup>th</sup> among 189 countries of the world in 2019). The mass character of the higher education did not affect its quality: 6 out of 29 universities are among the top 500 higher educational institutions, according to Rankings THE.

### 4.2. Major trends in the development of the Western and Eastern systems of higher education

1. Search for balance between mass coverage and quality of higher education

A classic example of the Western model of higher education is considered to be the so-called Humboldtian model. It proved to influence an entire era in the development of higher education and marked its transition from elitism to mass character. The key highlights of this model were represented by academic freedom, inseparability between the science and the education, the rational approach to knowledge and its operational capability, as well as by the predominance of humanities as an essential condition for the formation of a well-rounded individual. The establishment of the system of higher education in the USA in the second half of 19th century proceeded with numerous borrowings from this classic example, even though the American system has always prioritized training for specialists of focused specialization, not the development of fundamental knowledge base. In East Asian world, the foundation for the education has initially been maintained by the holistic approach to the perception of the world, the principle of unification with the nature, prioritizing of family and community values and obedience to the public authority. Higher education there was not considered to have mass character and has always been a privilege of the select few. In the 21st century, the situation has changed dramatically. According to the concept suggested by M. Trow (1973), when the share of applicants to higher schools exceeds 50% of the number of secondary school graduates, obtaining higher education is already regarded by the population as mandatory and the access to it - universal.

Among the studied Asian countries, such a level was achieved by Singapore, Japan, and Hong Kong. South Korea, Taiwan and Thailand are also worth mentioning within this category. In the nearest future, China and Malaysia have every prospect of joining this list. Massification of the higher education in certain countries has led to a number of problems. First and foremost, this concerns the decrease in the quality of educational services. Furthermore, the increase in the number of specialists with higher education has naturally boosted the competition in the labour market. This problem has become particularly acute in China where over 7 million specialists with higher education enter the labour market every year.

At the same time, due to the rapid population ageing in the Western world, as well as to a substantial growth of the living standards, it becomes distinctive of West European countries to gravitate towards the elitism of higher education. Despite the fact that the majority of the countries in this region enjoy the consistent practice of complete state funding of higher education, only a limited category of people is able to obtain it in the conditions of such high living standards, primarily local youth or wealthy foreigners. On the positive side, the high requirements for quality, ensured by these highest circles, are notable. However, certain «encapsulation» of the higher education in the wealthiest countries, e.g. Switzerland or Norway, does not conduce to further development, and it appears logical that none of these universities in the past five years has ranked among the top hundred in the international Rankings THE.

Based on the data from the specified rating, as well as other indicators of socio-economic development, highest effectiveness was displayed by the third way of solving the dilemma: Quality of higher education or its mass coverage of the population employed in Singapore and Hong Kong. It consists in promoting and proliferating the practice of creating educational hubs. This way, the education is used as a novel branch with a driving force for economic growth. The governments of Singapore and Hong Kong have initially regarded such hubs as a particular type of «soft power» for asserting their regional leadership. Subsequently, a favourable geographical location allowed them to capitalize on their achievement in the higher education sector (K. H. Mok, 2015).

Substantial capital investment in the sector of higher education and commitment to development of science-intensive subject areas and high technologies, both on the part of the state and the private sector, have naturally led to rapid growth of human capital and, correspondingly, regional economies. Mobility, creativity and ability for self-development are key features of the higher education in the 21st century which is corroborated by the experience of these countries. Creation of educational hubs allows us to expand and improve the infrastructure across sizeable territories, to form a powerful network of knowledge transfer which, as a consequence, causes the competitive advantages of the region in the international market of educational services to be constantly on the rise. In this case a harmonious balance between mass character and quality of higher education is attained.

2. Search for balance between state and private funding of higher educational institutions

We may observe colossal distinctions within the studied regions in the interrelation between the state-owned and the privately-funded higher education institutions. For instance, in Western Europe, the public higher education, being completely free for students, continues to be prevalent. Hence, the highest percentage of students - 95% - studies in such educational institutions. Despite the fact that the most renowned American universities are private, over 80% of the student community in the USA study in state educational institutions. The Latin American system of higher education increasingly tends towards the increase of the private sector. In Asian countries, the dominance of private educational institutions over the state-funded is indisputable: 80% of all students study there.

In Singapore, state funding is predominant: to cover the share of education costs (75-85%) subsidies are granted, while the rest is paid by the student. However, subsidies to universities are increasing at a higher rate than the tuition fee.

In general, countries within both studied groups (either the Western or the Eastern model) demonstrate an unprecedented demand for obtaining higher education in the absence of sufficient capacities or desire on the part of the state to provide full-fledged financial backing to educational activity institutions. At the same time, the role of the private sector in the higher education is growing (due to the mass character of coverage and favourable conditions for studying). This trend persists primarily in Asia and Latin America and, considering the quantity of the population in these regions, it will keep gaining momentum in the next 10 years.

Sustainability in allocating budgetary costs for education in the group of countries representing the Western model is demonstrated by the USA - approximately 5%. An insignificant fluctuation occurred only in 2013-2014: 4.93 -5.05%. The least stable is the funding of education in Finland: from 4.48% (1974) to 7.86% (1993). The highest share of GDP allocated for education is in Norway. Since 1994, the relevant indicator has undergone unsubstantial fluctuations within the limits of 7-8% (dropping to the 6.28% only once in 2008).

On the whole, we can emphasize the following trends characteristic of the government policies the abovementioned countries: the rate of growth of investments in higher education exceeds the rate of economic growth (Norway); a steady increase in funding corresponds to the growth of GDP indicators (Switzerland); curtailing of allocations for higher education in the conditions of economic upturn (Ireland, Finland); regularity of the scope of financial support for education regardless of any economic upheavals (USA).

The highest and simultaneously the least consistent percentage of GDP allocated for education within the group of the Eastern model belongs to New Zealand (3.43% in 1986; 7.15% in 2012). Presently, the most illustrative trend is displayed by its continuous, though insignificant, growth. The lowest expenditure is provided for by the state budget of Bangladesh (1-3%) being completely in accordance with the low level of economic development in this country. A saltatory pattern of the GDP share allocated for education is characteristic of Hong Kong (1.67% in 1982; 4.56% in 2004).

#### 3. Search for balance between internationalization and isolationism of educational systems

The majority of the countries in the region are actively implementing the policy of attracting foreign specialists and researchers to their educational institutions. Further to it, within the scope of the aforementioned programmes students have an opportunity to obtain education abroad which promotes the mobility of the participants in the academic process and the transfer of knowledge. In this vein, the largest "exporter" of foreign students for the USA is presently China; the second place is occupied by India, the third - by South Korea. Internalization of educational systems in the eastern region and exchange of knowledge provide a positive impact upon the increase in the ranking of local universities in the international ratings. To exemplify, according to Rankings THE, positions 23 and 24 among the top 50 universities are occupied by Chinese universities, positions 25 and 48 - by the universities of Singapore, positions 35 and 47 - by universities of Hong Kong and position 36 - by a Japanese university.

One of the positive aspects of internalization is the expansion of the English language as the main language of education in the universities. For instance, Korea Advanced Institute of Science and Technology has been teaching in the English language only since 2006. The leader in teaching university courses in English is Hong Kong which aspires to become an educational hub of the international level (M. Kedzierski, 2016).

With regard to educational institutions of the Western model, for the majority of them, located predominantly in the countries with a high level of development, an opposite trend persists - the so-called "encapsulation". This occurs for objective reasons - difficulties in providing for a minimum living wage by foreign students in wealthy countries even in case of obtaining the opportunity for tuition-free education and a decrease in the share of local residents in view of the rapid population ageing. Also, there exist subjective reasons: due to the increase in the level of terrorist threat in the Western world in view of expanding migration flows from the East, the possibilities for influx of foreign students into a large number of European higher educational institutions are being consciously restricted both at the level of the state and at the level of universities. In the long run, such practice will inevitably exert a negative impact upon the quality and the profitability of the very institutional establishment of higher education.

According to the data provided by the Organization for Economic Cooperation and Development, by 2030, over 50% of all higher education graduates (aged 25 to 34) will have originated from India, Japan and China, while the EU and the USA will account for less than 25%. Hence, the preparedness for effective intercultural communication in the professional sphere will become one of the most in-demand competencies for an individual with higher education of any ethnic origin.

#### 5. Conclusions

Findings of the study of current trends in the management, funding and quality assurance of higher education in the countries representing either the Western or the Eastern model serve as the foundation for the following conclusions (many of which proved to be rather unexpected).

The Western civilization and the Eastern civilization are traditionally regarded as polarized and irreconcilable, while the end of the confrontation between the two global ideological systems - the USA and the USSR - did not bring about the unification of the world but rather caused the aggravation of civilization splits. At the same time education should have potentially become the neutral space with regard to political and economic upheavals since the very foundation of any national educational system rests upon universal human values and inherent striving of the individual for self-development. However, as evidenced by the history of mankind the education has often served as a tool of an ideological impact and political manipulations always serving as a principal marker of economic development of the country.

Countries selected for our study can hardly qualify as being the brightest representatives of the two civilization poles: the East - the West. Some of the studied Asian countries went through a colonial period in their history. Therefore, they experienced the influence of western colonial countries. Nonetheless, even such «soft» juxtaposition of both the Eastern and the Western models reveals profound transformations in their very essence. Those features that traditionally define the Eastern model of education - elitism, «encapsulation», inviolability of traditions, addressing spiritual foundations - in the current conditions become increasingly inherent in the Western educational model. Simultaneously, the mass character, internationalization and the all-out technicalization, which were earlier associated with the Western model of higher education, currently serve as

defining trends for the development of the Eastern educational systems. The system of funding of higher education becomes similarly «reversed».

Has there emerged a universal "hybrid" education model that would display a positive outcome from the symbiosis of the Western and the Eastern thought patterns as a consequence of these transformations? Educational systems of Hong Kong and Singapore in the nearest future have every prospect to become a showcase of a successful combination of the best elements from both civilization dimensions. However, the overall problem of harmonization of the spiritual and the material, the social and the individual, the intellectual and the moral within the educational space in the conditions of growing dehumanization, technicalization, conflicting nature of the contemporary global society remains unresolved.

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