



AN ECONOMIC ANALYSIS OF THE PUBLIC PRIVATE PARTNERSHIP AND HIGHER EDUCATION SYSTEM IN INDIA

MAJAZ M. SIDDIQI¹ AND PROF. (DR.) HARJEET KAUR BHATIA²

1 Research Scholar, Educational Studies (DES), Jamia Millia Islamia, New Delhi, India 2 Professor at the DES, Jamia Millia Islamia, New Delhi, India

ABSTRACT

India is known as the "Land of Learning" because the country places a high value on education. The most effective method for directing the behaviours of production factors toward a common goal is education. It could generate powerful forces that can help modernize an established civilization. It is extremely important for the proceeded with extension of a country's economy and social framework. Education is essential for the formation and growth of nations and is a necessary component of human existence. One of the most significant factors in the evaluation of mankind's capacity for information retention and transmission is higher education. This factor has had a significant impact on this assessment. Over the course of the past five years, the Gross Enrollment Ratio (GER) has increased, rising from 20.8 in 2011-12 to 24.5 in 2015-16. According to estimates, 16. million girls and 18.6 million men are enrolled in higher education. There are approximately 34.6 million students enrolled. Girls accounted for 46.2% of the total enrolment for the 2015-16 school year. The arts, humanities, and social sciences account for 40% of all higher education enrollments, followed by science at 16% and engineering and technology at 14.1 percent. Partnerships between the public and private sectors are increasingly being viewed as crucial to the success of higher education systems. To enhance the efficiency, innovation, and impact of both public and private partnerships in higher education systems, these collaborations bring together the best features of the public and private sectors. In conclusion, the concept of higher education holds the greatest significance when viewed from a global perspective. It is regarded as a social merit good as well as a public and private good because it produces a significant number of externalities. Education is like an unseen hand that shapes a nation's overall growth pattern.

Key words: Higher Education, Economic, Public Private Partnership.

INTRODUCTION

In India, education is highly prized, making it an ideal tool for conforming the actions of various actors in the production process to a common goal. It has the potential to generate significant forces that may be of assistance in the modernization of conventional societies. It is crucial to the development of a nation as a whole and the expansion of its economy. Education is essential for both the construction of nations and the formation of nations because it is a human indicator of life. As a result, economic growth cannot occur without education [1]. Education is essential to economic growth. Alfraid Marshal asserts that education is the best form of national investment due to its investment in human beings—the most valuable form of capital—as opposed to other forms of capital. Education is generally regarded as more of a private than a public benefit [2]. However, it is possible that this conclusion is based on the idea that the government ought to get involved in providing educational services because doing so would be good for society. Advanced education is one of the essential factors that has made a gigantic distinction in the evaluation of humanity's capacity to hold and move information. This distinction might be ascribed to the way that advanced education is one of the central points. Education gives people the ability to earn more money, a better social position, more knowledge about how society is changing, and the



power to make better decisions in life. People can also earn more money through education. In addition, it encourages the incorporation of new technologies and encourages creativity. As a result, a nation's growth is sped up when people anticipate educational opportunities. In addition to economic returns, education has a significant impact on health, fertility, mortality, population growth, poverty, income distribution, and general quality. If we relax this presumption, education may very well be regarded as a private benefit in several different nations. The current study aims to examine the relationship between the Indian higher education system and the idea of public-private partnerships [3].

THE DEFINITION AND ROLE OF MOOCS

The development of massive open online courses during the first ten years of the 21st century [4, 5, 6] Since their inception in 2008, massive open online courses (MOOCs) have grown in popularity. Students and a wide range of other stakeholders around the world became interested in them. 2012 was designated as the "year of MOOCs" [7, 8]. Although massive open online courses (MOOCs) are taught online, there are several important ways in which they differ fundamentally from previous approaches to online education. The fact that MOOCs are free and open to everyone is the most significant of these distinctions. Typically, they are condensed training programs that are broken up into several distinct modules. Each module is designed to be completed in one week, so the course typically takes six to eight weeks to complete. Most of the time, MOOCs do not require prior knowledge or experience, and students are not required to make any direct commitments other than those they already have with themselves. A massive open online course (MOOC) is completely voluntary, and students' participation is determined by their interests, motivations, and requirements [7,9,10]. People who are interested in learning about the same subject can connect through MOOCs. While some students enrol in massive open online courses (MOOCs) to advance their academic or professional careers, others do so out of a love of learning new things. Members are encouraged to complete the tasks, but they are not expected to do so. There is no authority license or certificate granted to understudies who complete an enormous open web-based course (MOOC) [11, 12]. MOOCs can attract much larger audiences than traditional forms of online education due to their capacity to accommodate thousands or even millions of students simultaneously. Subject matter experts and course facilitators frequently facilitate learning in massive open online courses (MOOCs). A MOOC's common work area can be fanned out across a great many web-based entertainment, computerized innovations, and stages.

Based on connectivism [13], the first massive open online courses (MOOCs) were mostly distributed via social media, very simple syndication (RSS), and open educational resources (OERs). However, this is no longer the case, particularly in relation to RSS usage. However, regular use of social media and networking sites continues to make it easier for students to interact with course content and with one another. An assortment of uninhibitedly open web assets fills in as the hotspot for both the class material and the review guides. Rather than conventional authentications, degrees, or credit hours, students who effectively complete





monstrous open web-based courses (MOOCs) get identifications or different types of acknowledgment. Since 2008, "freemium" models have been used to create massive open online courses (MOOCs). The foundation of these models is a pricing strategy for a product or service that is based on providing a product or service to the customer for free, typically a digital offering or application like software, media, games, or web services. For exclusive features or functionality, there may be a premium, also known as an additional cost. The learners in this scenario have free access to the MOOC's first levels; However, if students want a certificate, study advice, or interaction with subject matter experts, they must pay a fee [14]. As a part of long-term learning, massive open online courses (MOOCs) provide opportunities for growth and skill development, but these innovative methods also serve as new plug models for advanced education.

Massive open online courses, also known as MOOCs, are a type of online learning that has the potential to alter the location of learning by expanding it beyond conventional campus classes, conventional learning management systems, and conventionally taught classes. MOOCs have the potential to usher in a new era of "wall-less schools," in which students instead of attending school in person can follow their curriculum online from any location. As a result, educational particle accelerators are vast open online courses. New data sources like learning analytics are made accessible through massive open online courses (MOOCs) [15]. Students, educators, and institutions can all obtain data on a wide range of topics by utilizing learning analytics. This information can uphold associations, map learning styles and examples, work with course improvement, and eventually encourage and upgrade individual learning. Due to their scalability, massive open online courses (MOOCs) provide a wide range of options for large-scale experimentation, which may assist in the creation of novel pedagogical practices and the advancement of science learning [15].

Since massive open online courses (MOOCs) first gained public attention, new research avenues have emerged. However, these new lines of research have had little impact on classroom instruction [16]. According to Raffaghelli, Cucchiara, and Persico [17] (page 1), the primary focus of the still-developing research on MOOCs is on case studies and theory. This is the situation, even though the research is still in its infancy. They said that the research is just starting to find good ways to deal with big groups of students, big data sets, and new ways of learning. In addition, they emphasized that the current comprehension of MOOCs is incomplete due to the "different epistemological and ontological conceptions of the authors of the papers about the nature of the issues faced and the way they should be studied." This is because the authors of the papers have "different ideas about the nature of the issues faced and the way they should be studied." For research on massive open online courses (MOOCs) to contribute to the advancement of the science of learning, stakeholders, developers of courses, and researchers must advance the field along three distinct trajectories: studies of student participation in research on learning; examinations of individual classes and comparisons between cultures; and a greater reliance on post hoc analyses in addition to a greater use of experimental and multidisciplinary design [15]. Even though gigantic open



web-based courses (MOOCs) have been displayed to have a ton of instructive potential, understudies do not gain official appreciation and the actual courses are not certify in customary instructive settings. In their communiqué titled "Opening up Education to Boost Innovation and Digital Skills in Schools and Universities," the European Commission [1] called for universities worldwide to recognize and validate MOOCs because they are essential to raising individuals' skill levels and increasing their employability.

REVIEW OF LITERATURE

In the selection, in addition to discussing these other studies, there is a discussion of other studies related to the goal. In his 2020 paper titled "Public Private Cooperation in Indian Higher Education," he makes the following observation: Education is largely a public good that is funded by the government on merit. The inability to reach as many people as possible, the rising demand for goods and services, the intensifying global competition, a lack of adequate infrastructure, and a limited supply of resources are all potential drivers of public-private partnerships. The idea has a lot of potential and challenges, but the economy could grow and be more successful with the right policies and self-discipline.

A focus on a public-private partnership is a potential strategy for maximizing resources that already exist because the private sector contributes expertise, technology, and management practices, while the public sector acts as an enabler and facilitator. However, the ppp concept is hampered by several issues with India's higher education system. Dr. Mohithsharma and others, 2019), which discusses the significance of public-private partnerships in higher education. Disregarding these snags, the instructive area requires extra examination into the public-private organization (PPP) model. The public-private partnership (ppp) model is an option for developing the necessary infrastructure for educational institutions due to the laws that govern only charitable organizations. According to the few studies that have been conducted up to this point, there may be several advantages to outsourcing education to the private sector. Better viability, a wider range of available options, and extended access to educational opportunities are all potential benefits. Families whose educational opportunities have been hampered by conventional approaches may particularly benefit from these advantages.

"Possibilities and methodologies public confidential organization in advanced education in India," as per C. Vijaya Lakshmi (2017), is an article that looks at patterns in advanced education and the job of the public confidential organization for the purpose of cultivating trust between general society and confidential areas. Establishing certification, participating in higher education as a means of increasing trust between the public and private sectors, and constructing management systems that are open and responsible all contribute to ensuring that higher education is of a high quality.

The issues that prevent public-private partnerships from succeeding in higher education are examined, as are the strategies that should be implemented to make them successful. O. A. Thomas and A. S. Thomas's (2017) publications on public-private partnership and



management of higher education in Nigeria serve as the primary sources for this study. It was suggested that both public and private organizations implement the outlined strategies to establish a robust and efficient public-private partnership for the delivery of the required level of higher education.

The report titled "Higher Education in Trishanku: dangling between the state and the market," which was published in 2015 by Jandhyala B.G. Tilak.

The article's main point was that many countries' higher education institutions are at a crossroads right now. Public education is gradually being taken over by private organizations. This is one part of a larger trend. Despite the widespread belief that the public sector is effective and, as a result, desirable, the case for public education continues to be persuasive. It is essential that the state assume a leading role in this sector.

OBJECTIVES

To read and analyse the work taking into consideration the following primary goals.

- To investigate the idea of public-private partnerships in educational institutions of higher learning.
- To study the public-private collaboration that already exists in India.

METHODOLOGY

The entire investigation is based on information that has already been gathered. Articles, research journals, electronic journals, books, newspapers, and magazines, as well as the planning commission report, websites, and the economic survey, in addition to the annual status of higher education (ASHE) and AISHE (All India Survey and Higher Education), were used to collect the data.

CONCEPT OF PUBLIC PRIVATE PARTNERSHIP

It is guessed that the mix of PPP areas will not just help the country's general population, yet in addition improve and manage human existence methodologies that are customized to the singular's way of life and personal satisfaction. The efficiency of the private sector is the country's most important component, and the combination sectors are thought to be of assistance. The idea of public-private partnerships needs to have an acceptable level of financial investment, specialized technical knowledge, an evaluation of cost-benefit analysis, and a focus on expanding the economy. The novel idea of public-private partnership has only recently begun to gain traction among India's federal and state governments. The sectors of infrastructure, health care, public transportation, education, and service make up this PPP module. All these industries want to offer affordable, high-quality education to many people. With the assistance of public-private partnerships, the government and the private sector would be able to jointly initiate the system, adopt, frame, and implement a variety of policies, programs, and strategies, as well as face the challenges posed by the fact that raising the quality of higher education is a primary concern in the process of building a nation.





A public private partnership (PPP) is a partnership of businesses from the public or private sectors that sponsors and manages a government service or private capital initiative. a report from the Landon School of Economics states, "are not regarded as an appropriate investment (Information Technology) project, or where social concern place a constraint on the user changes that might make a project interesting for the private sector." "A public-private partnership is a cooperative endeavour between the public sector and the private sector that draws on the experience of each partner and best addresses clearly defined public requirements through the proper allocation of resources," is the definition provided by the Canadian council. "With the objective of assuring, financing building, repair, management, or upkeep of a public infrastructure or making provision for public services," as stated by the Government of India, refers to a variety of collaborations between public authorities and the cooperative world. It suggests a partnership between, on the one hand, a public expert and, on the other, a privately held company that is determined to provide a public resource and open assistance through speculations made by a confidential area association for a specific time. This includes a contract or direct investment between a public sector authority and a private party in which the private party takes on a significant financial, technical, and operational risk while providing a public service or project. The government might provide a one-time grant as a capital subsidy to make it more appealing to private investors. Over the course of time, public-private partnership will play a significant role. In different conditions, the public authority might give monetary help to the task as income sponsorships, like duty decreases, or by ensuring yearly pay for a specific measure of time. In crucial sectors like higher education and health care, the establishment of public-private partnerships has recently received a lot of attention. This is done with the intention of increasing the productivity and creativity of public service delivery.

PRIVATIZATION OF HIGHER EDUCATIONS

Not only does higher education meet the growing demand, but it also helps individuals and businesses understand the enormous and rapid profit potential of the supplemental investment industry. the private organizations like universities, training schools, and others like them. The Department of Education and the University Grants Commission, which are both in charge of education, do not collect or disseminate statistics on the number of institutions and enrollments in this rapidly expanding sector of private higher education.

In the latter part of the 1990s, India's government was able to improve the quality of higher education by establishing public-private partnerships because of liberalization, privatization, and globalization. Perhaps the ongoing growth of the private sector in higher education institutions, particularly universities. India has witnessed an increase in the privatization of higher education over the past ten years, which has taken many forms. One method of privatization in government-run higher education institutions is the introduction of self-financing courses. The transformation of privately run schools that receive government funding into independent schools that raise their own funds is yet another strategy. facilitating





the growth of private institutions that can finance their own operations without the need for internal reorganization.

HIGHER EDUCATION SYSTEM IN INDIA

Both social change and financial expansion are primarily fueled by training. It not only inspires individuals to move forward, but it also shifts the ideals that are necessary for the advancement of the nation. Additionally, it is one of the signs of human life. India's higher education system includes both public and private universities. While public universities receive funding primarily from the central government of India and state governments, private universities receive funding primarily from a variety of private organizations and society. By 2030, India will have the highest proportion of young people worldwide. considering that approximately 140 million people wish to continue their education and are currently enrolled in college. India's educational system is expected to produce one graduate for each global graduate. Since the country gained its independence in 1947, the system of higher education in the nation has experienced remarkable expansion. The University Grants Commission (UGC) has contributed to India's expansion and development of higher education by developing programs and putting numerous schemes into action with academic, administrative, and financial support. The proliferation of private educational establishments is a significant shift in the dynamic environment. Numerous brand-new institutions have been established in addition to the fields of medicine, science, and technology. Although we currently have a gross enrolment ratio of around 17.9%, we have set an ambitious goal of 25.2% by the end of the 12th plan.

HIGHER EDUCATION REFORMS AND INNOVATION

The numerous achievements that higher education has achieved all over the world provide ample evidence of its ability to effect change and advancement in society. Society has gained knowledge because of the scale and speed of change; It now serves as the foundation for education, research, and the development of novel concepts; Additionally, it contributes to the cultural, socioeconomic, and environmental sustainability of community and nation development. The World Bank (2002) claims that developing nations have recognized the necessity of investing in feasible circumstances that permit national growth and adequate funding for higher education to advance their progress agenda.

As a result, higher education faces significant challenges and must undergo the most radical transformation and renewal it has ever needed to. This is necessary if our society, which is experiencing a severe crisis of values, is to be able to transcend merely economic considerations and deeper detentions of morality and spirituality in business settings.

PUBLIC PRIVATE PARTNERSHIP HIGHER EDUCATION SYSTEM IN INDIA

Since the country gained its independence in 1947, the system of higher education in the nation has experienced remarkable expansion. India's higher education system, which is





currently the third largest in the world, is anticipated to surpass that of the United States within the next 15 years. India still possesses a significant amount of untapped potential, despite the country's complicated and inconsistent higher education system. Despite having the fifth highest level of public private participation of any developing nation, India has one of the lowest levels of public private participation as a percentage of GDP. According to the World Bank's discussion of public-private participation, on the other hand, Argentina, Malaysia, and the Philippines all have levels of 51, 41, and 37 percent, respectively. Publicprivate organizations are coordinated efforts between the public area and the confidential area. By combining the size of the government system with the inventiveness of the private sector, they focus on increasing system efficiency, introducing new innovations, and holding schools accountable (FICCI Report 2014, PP.12). This is finished to work on the general nature of the school system. According to the findings of the National Knowledge Commission, the privatization of education in fields like engineering, medicine, and management has grown to the point where students who attend private schools hold between two-thirds and three-fourths of the seats in these establishments. India's public and confidential organizations are uniformly disseminated, as indicated by a 2012 UGC report. This is since, whereas most students who enrol at private school's study market-driven subjects like engineering, management, and so on, most students who enrol at public universities study traditional subjects like the arts and sciences. According to a British Council study on India's economy that was published in 2014, the disciplines are typically more employable, and most forms recruit engineering management graduates. According to a UNESCO report, India has the second-most university students in the world, despite having the most universities in the world. The Gross Enrollment Ratio (GER) has increased over the past five years, going from 20.8 in 2011-2012 to 24.5 in 2015-2016. This results in a 5.3% increase. It is anticipated that 34.6 million individuals, 18.6 million of whom are men and 16 million of whom are women, are enrolled in some type of higher education now. During the 2015–2016 school year, 46.2% of all enrolled students were female. Participation in the Arts and Humanities With forty percent of students enrolling in higher education, social science is the most popular subject, followed by science with sixteen percent and engineering and technology with fourteen percent. Higher education systems' success increasingly depends on partnerships between the public and private sectors. These partnerships bring together the best aspects of the public and private sectors to enhance the effectiveness, innovation, efficiency, and impact of public-private partnerships and higher education systems. The development of human capital, an increase in income, the eradication of poverty, and progress toward a socioeconomic and political development that is more sustainable are all outcomes of public and private higher education's contribution to the country's ongoing, progressive growth.



Table: 1. Number of Universities and Institutions

Universities Types	No of Universities					
	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
State public university	281	286	292	309	316	329
State private Universities	87	105	122	153	181	197
Deemed university -private	91	90	91	91	90	90
Institutes of National Important	59	59	62	68	75	75
Central Universities	41	42	42	42	43	43
Deemed University of	40	38	36	36	32	32
Government						

The data in table 1 clearly demonstrate that the number of universities and other types of institutions has steadily increased from 2010-2011 to 2015-2016. From 2010 to 2012, there were 281 State funded colleges in India; There were 286,292, 309,316, and 329 in 2011, 2012, 2013, 2014, 2015, and 2016, respectively. However, the number of state-managed private universities increased from 87 to 197 during the academic years 2010–2011 and 2015–2016. The number of Deemed Universities of Private Appreciatively Marginal Institutions decreased from 91 to 90 during the same time. The number of "government universities" decreased from 40 to 32 during this time. The number of Central Universities rose from 41 to 43, while the number of Institutions of National Importance increased from 59 to 75. According to the information presented in Table 4, there has been an increase in the number of students enrolled in central universities, institutions of national significance, state public universities, and state private universities. The two private and state-funded colleges that are considered "considered" have seen a downward trend in enrolment over the period from 2010-2011 to 2015-2016.

FINDINGS OF THE STUDY

The following is a list of some of the significant discoveries that can be drawn from the debate that came before.

- A public-private partnership brings together a set of actions to achieve a common goal based on mutually agreed-upon principles and roles.
- The administration of educational institutions of higher learning may gain from the establishment of partnerships between the public and private sectors. An increase in the number of colleges, institutes, and universities promotes a better nation.
- In terms of the breadth of its educational network, India's higher education sector currently ranks quite high.
- To encourage expansion within India's existing educational establishments, the Indian government has implemented a variety of incentives for higher education.

CONCLUSION

Due to its capacity to generate a significant number of positive externalities and social benefits, higher education is frequently regarded as both a public and a private benefit.



Because of this, it is one of the most important concepts for the global perspective. Training is at times alluded to be the "imperceptible hand" of the country. Any advancement in the economy is dependent on education. The public and private higher education systems not only foster economic expansion, but they also increase productivity and precipitously raise individual incomes. The development that has taken place demonstrates its influence at the macro level of the nation. Plans were made to continue long-term public-private partnerships across the nation that were found to be successful in managing higher education institutions. These partnerships are crucial and necessary.

REFERENCES

- Jandhyala. B. G. Tilak, (2005) higher education in Trishanku: hanging between state and market, economic and political weekly, Vol XL No.37, PP. 4029-4037.
- Dr. Medha Gupte (2020) public private partnership in Indian Higher Education, Published By; Sai Om Journals of Arts & Education; A Peer Reviewed International Journal, Vol.1, Iss.12, PP.20-24ISSN-2348-3520.
- C. Vijayalakshmi (2019) prospects and strategies public private partnership in higher education in India, International Journal of Applied Research and Studies, Vol. II, Iss.3, PP.1-8. ISSN:2278-9480.
- O.A. Thomas and A.S. Thomas (2017) Public Private Partnership and Management of Higher Education in Nigeria, Journal of Educational Review, Vol.6, No.1, PP.109-117.
- Dr. Mohit Sharma et al (2015) role of public private partnership in higher education, electronic copy available at http://ssrn.com/abstract=2551391.
- World Bank (2009) The role and Impact of Public-Private Partnership in Education, Washington: World Bank.
- Planning Commission Government of India (2013) Twelfth five-year plan (2012-2017) Social sectors, SAGE Publications India Pvt Ltd, New Delhi, ISBN:978-81- 321-1368-3(PB)
- Christopher M. Byrd (2013) Public Private Partnership for Higher Education Infrastructure: A Multiple Case Study of Public private Partnership Moduls.
- Philippe Aghin & Ufuk Akcigit (2015) Innovation and Growth: The Schumpeterian perspective.
- Sharad Jaippuria (2014) Higher Education in India: An Introspection, Times of India News Paper.
- MHRD (2016), All India Survey on Higher Education 2015-2016, New Delhi.
- Apoorva Shankar (2016), Role of Private Sector Higher Education.
- N.V. Vorghese (2012) Private Higher Education: The Global surge and Indian Concerns, Infrastructure Report 2012. pp.146-156.s
- European Commission. Opening Education to Boost Innovation and Digital Skills in Schools and Universities. 2013. Available online: http://europa.eu/rapid/press-release_IP-13-859 en.htm (accessed on 30 March 2016).
- Dos Santos, A.I.; Punie, Y.; Castaño-Muñoz, J. Opportunities and challenges for the future of MOOCs and open education in Europe. In From Books to MOOCs? Emerging Models of Learning and Teaching in Higher Education; de Corte, E., Engwall, L., Teichler, U., Eds.; Portland Press: London, UK, 2016; Volume 88, pp. 81–91.
- Ossian Nilsson, E. Let the Learners Take the Lead for Their Learning and Educational Lifelong Learning Journey. In Handbook of Research on Learning-Centred Pedagogy in



- Teacher Education and Professional Development; Keengwe, J., Ed.; IGI Global: Hershey, PA, USA, 2016.
- Daniel, J. Making Sense of MOOCs: Musings in a Maze of Myth, Paradox and Possibility. J. Interact. Media Educ. 2012, 3, 18. [CrossRef]
- Ossian Nilsson, E. Challenges and Opportunities for Active and Hybrid Learning Related to UNESCO post 2015. In Handbook of Research on Active Learning and the Flipped Classroom Model in the Digital Age; Keengwe, J., Onchwari, G., Eds.; IGI Global: Hershey, PA, USA, 2016; pp. 333–351.
- Atkins, D.E.; Brown, J.S.; Hammond, A.L. A Review of the Open Educational Resources (OER) Movement: Achievements, Challenges, and New Opportunities; Creative Commons: San Francisco, CA, USA, 2007.
- Haggard, S.; Brown, S.; Mills, R.; Tait, A.; Warburton, S.; Lawton, W.; Angulo, T. The Maturing of the MOOC: Literature Review of Massive Open Online Courses and Other Forms of Online Learning; BIS research paper, Research paper no. 130. Department for Business, Innovation and Skills, UK Government: London, UK, 2013.
- Shan, D. MOOCs in 2015: Breaking Down the Numbers. Ed Surge. Available online: https://www.edsurge. com/news/2015-12-28-moocs-in-2015-breaking-down-the-numbers (accessed on 30 March 2016).
- Gaebel, M. MOOCs: Massive Open Online Courses. An Update of EUS's First Paper (January 2013); The EuropeanUniversity Association (EUA): Brussels, Belgium, 2014.
- McAuley, A.; Stewart, B.; Siemens, G.; Cormier, D. The MOOC Model for Digital Practice, SSHRC Knowledge Synthesis Grant on the Digital Economy. E-learningSpace, 2010. Available online: http://www.elearnspace.org/Articles/MOOC_Final.pdf (accessed on 30 March 2016).
- Jansen, D.; Schuwer, R. Institutional MOOC Strategies in Europe: Status Report Based on a Mapping SurveyConducted in October–December 2015; EADTU: Heerlen, The Netherlands, 2015.
- Forbes. Use of MOOCs and Online Education is Exploding: Here's Why. 2015. Availableonline: http://www.forbes.com/sites/joshbersin/2016/01/05/use-of-moocs-and-online-education-is-exploding-heres-why/#10e5c5b87f09 (accessed on 30 March 2016).