IMPLICATIONS OF TOTAL QUALITY MANAGEMENT IN UKRAINIAN HIGHER EDUCATION INSTITUTIONS: INTERNATIONAL EXPERIENCE

**Purpose.** Analyzing the features of the implications of total quality management in the educational policy of Ukraine. The implication of total quality management is an important component of the educational policy of the world’s leading countries. Its implementation into Ukraine’s educational policy is a prerequisite for increasing the effectiveness of reforming the management of higher educational institutions in Ukraine.

**Methodology.** The authors used the comparative approach as the main research method. This allowed exploring the meanings of the key terms of educational policy: “quality of education”, which is used in normative documents of the Ministry of Education and Science of Ukraine, and “total quality management”, which is used in the directives that determine the educational policy of the world’s leading countries. The use of empirical and theoretical research methods, such as analysis, synthesis, classification, modeling, and others, helped the authors establish the difference and general principles between the two terms.

**Findings.** In modern research, education is regarded as a behavioral model in which management models play an important role. The authors studied the history of interpreting the meanings of the term “total quality management” (TQM), as well as the features of its implication in the educational policy of Ukraine aimed at reforming the management of higher education institutions.

**Originality.** Taking into account the international experience, it was proved that the implications of total quality management in Ukraine’s educational policy would significantly increase the effectiveness of reforming the quality of education in Ukraine. It is with the implication of total quality management that the international experience in reforming the management of higher education institutions in European Union countries, the USA, Japan, etc. is associated.

**Practical value.** The implication of total quality management enriches the educational policy of Ukraine with international experience in reforming the management of higher education institutions of the world’s leading countries. The reform of 659 higher education institutions, which is currently carried out by the Ministry of Education and Science of Ukraine, is based on international managerial experience that proved its effectiveness in building the economy of Japan, the USA and other countries, and especially in achieving strong outcomes in international university rankings. The implication of international experience will allow the Ministry of Education and Science of Ukraine to avoid irreparable errors in reforming the management of higher education institutions with rich history and established traditions, which together form the identity of Ukrainian science and education.

**Keywords:** total quality management, quality of education, Ukrainian higher education institutions, educational policy, management reform

**Introduction.** The central problem of reforming higher education in Ukraine is to improve its quality. On the website of the Ministry of Education and Science of Ukraine, “quality of education” is defined as “a set of characteristics of the educational process, which determines the consecutive and practically efficient form of competence and professional knowledge” [1]. To have a broader understanding of the meanings of the phrase “quality of education”, the Ministry of Education and Science of Ukraine recommends reading the book *Strong Performers and Successful Reformers in Education World Class How to Build a 21st-Century School System* by Andreas Schleicher. The book was published by the Organisation for Economic Co-operation and Development in 2018 [2]. Recommending the ideas of Schleicher for an expanded understanding of the meaning of the term “quality of education” indicates a reform strategy for managing higher education institutions of Ukraine chosen by the Ministry of Education and Science of Ukraine. In fact, the book reveals the educational policy of Ukraine in the field of higher education and the basics of managing higher education institutions of Ukraine.

The educational policy of Ukraine, aimed at improving the quality of management in science and education, provides for the reform of 659 higher education institutions, which enrolled 1 605 million students in 2016 [3]. It is claimed that the management reform of so many higher educational institutions, as well as the reform of the structure and management of higher education institutions themselves, should be based not only on the initiative and desire of ministerial officials, but also on international experience. We should note that the complexity of reforming the management of higher educational institutions of Ukraine is explained by the following factors [3]:

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1. 525 out of 659 higher education institutions in Ukraine were state-owned (1.466 million students studied there) and 134 were private (enrolling 0.139 million students).

2. According to the data of 2016, higher education institutions of Ukraine consisted of 185 universities, 53 academies, 63 institutes, 1 conservatory, 218 colleges, 56 technical schools, and 83 vocational schools.

In the article, the authors explore the meanings of the term “quality of education”, in accordance with which the Ministry of Education and Science of Ukraine carries out the management reform of higher education institutions in order to increase their competitiveness in the market of educational services. The authors will compare these meanings with those of the phrase “total quality management”, which are used as the basic ones in the educational policy of the world’s leading countries. According to the authors, the implications of total quality management will enrich Ukrainian educational policy with world experience in reforming the management of higher education institutions and ensure their promotion in the world university rankings. The implications of international experience will allow avoiding irreparable mistakes in reforming the management of scientific and education institutions with rich history and established traditions that together form the identity of Ukrainian science and education.

**Results.** First, let us clarify modern views on education and the role of managerial theories in education.

In modern research, education is regarded as a behavioral model. For example, in the study “The regulatory functions of education in behavioral models”, the authors investigated three key education functions: formative, developmental and stabilizing. The regulatory functions of education allow considering the development of an individual, family and society as a behavioral model [4]. Modeling of education, ranging from individual education to the educational policy of the country, opens up the possibility of implicating modern management theories and approaches into the educational process. Any managerial model that has proven to be effective in production finds application in the management of “quality of education.”

Bazyuk O. considers education as a model taken as a whole. In his understanding, the philosophy of education in the post-modern era is erroneously considered as a descriptive discipline reflecting on the characteristics of educational practices. The philosophy of education returned to ancient meanings, which were exclusively rational in nature. Within the boundaries of the philosophy of education as a scientific discipline, the social models based on neurobiological and psychological theories are created and researched. The philosophy of education has become a practice. Achievements in neuroscience and cognitive psychology determine the effectiveness of educational policy modeling, and are used both in management theories and in management of higher education institutions [5, 6].

Thus, education is regarded in modern theories as a behavioral model, which uses managerial models that have proven their effectiveness. Therefore, the reform of the quality of education essentially means a change in the managerial model in education. It affects changing the functions of education and the entire behavioral model of the neurobiological and social system. The implications of a new managerial model in education can lead both to the crisis of personality identity [7, 8] and vice versa, to the formation of new traditions in education (e.g., the studies by T. Richardson [9], S. Rudenko [10], O. Fatkhutdinova [11], and others).

For this reason, the quality of education and the meanings implied by this phrase acquire special significance. They determine the functions of education, i.e. management model in education, which forms the basis of human and society behavior. When considering the definition of “quality of education”, which the Ministry of Education and Science of Ukraine offers, the following can be found out: the phrase “...determines the consecutive and practically efficient form of competence and professional knowledge” [1] clearly reveals the only meaning. This phrase indicates the choice of direction of management reform, or a certain sequence of actions aimed at building competencies and transferring certain professional knowledge. In fact, the Ministry of Education and Science of Ukraine recommends the direction of reforming the management of 659 higher education institutions of Ukraine, or the implications of a new managerial model in the educational process. It means that the definition “quality of education” itself does not reveal the defining meanings of the managerial model suggested by the Ministry. It only indicates the direction of change and no more.

The need to reform Ukrainian higher education institutions in the direction of “developing competence and professional education” is obvious even at a first glance. However, in the Western culture, which is focused on the formation of critical thinking, “developing competence and professional knowledge” in diverse educational and research, liberal arts and technical higher education institutions, actualizes at least several issues:

1. What competences are aimed at by reforming the quality of education in higher education institutions of Ukraine?

2. How far are these competencies unified for 659 higher education institutions of Ukraine?

3. What are the meanings implied by the officials of the Ministry of Education and Science of Ukraine when considering the phrase “the development of professional consciousness”?

4. To what extent are the characteristics of “professional consciousness” unified for 659 diverse higher education institutions of Ukraine?

Finally, the most important question can be formulated: “How far is the management model uniform for Ukraine’s higher education institutions?” In fact, they pursue different goals and perform different tasks. The effectiveness of educational and research functions is ensured by different management models. However, in the definition given on the website of the Ministry there is no such division. The definition of “quality of education” implies that ministerial officials see no difference in the management of higher education institutions and research institutions of higher education.

To answer the questions discussed during the implications of “quality of education” in Ukrainian higher education institutions, the Ministry of Education and Science of Ukraine recommends Andreas Schleicher’s book [2]. Schleicher’s book is really relevant and important. However, this book is indirectly related to the “quality of education” and does not reveal the true meanings of this phrase. Its recommendation raises even more questions, e.g.:

1. Schleicher’s book outlines the goals, objectives and achievements of the Programme for International Student Assessment (PISA). In fact, it promotes the program of the Organization for Economic Co-operation and Development (OECD), which offers one of the several worldwide approaches to international student assessment [2]. The Programme for International Student Assessment measures the ability of 15-year-old children to use their reading, mathematics and science knowledge to meet real-life challenges [12]. The question arises: “What is the relevance of the book on the assessment of students’ educational achievements to the implications of the quality of education in 659 higher educational institutions of Ukraine, of which about 100 are not engaged in educating students?”

2. The methodology and experience of their use offered in Schleicher’s book are basically designed for teenagers. The contingent of higher education institutions is composed of young people from 17 to 30 years old, i.e. early adulthood. How far is the expanding of the methodology used for adolescents to a more advanced period of human development appropriate and relevant to the worldwide practice?

3. The Organization for Economic Co-operation and Development (OECD), which funds the Programme for International Student Assessment (PISA) and Andreas Schleicher’s book edition, focuses primarily on addressing social, economic and environmental issues. It is an intergovernmental economic organization, the activities of which are aimed at stimulating economic...
progress and world trade [13]. Why does the Ministry of Education and Science of Ukraine recommend the program of this organization rather than, for example, the program of Educational, Scientific, and Cultural Organization (UNESCO)? It is precisely the United Nations Educational, Scientific and Cultural Organization that is working to “create the conditions for the dialogue among civilizations, cultures and peoples” [14].

Thus, Schleicher’s book advocates the program of the Organization for Economic Co-operation and Development (OECD) and cannot be considered as the basis for reforming management in Ukraine’s educational policy.

Educational policy of the leading countries of the world, especially in the direction of changing the “quality of education”, i.e. management in educational models, is determined by the programs, regulations and legal documents adopted by the Educational, Scientific, and Cultural Organization (UNESCO). These are the directives of this organization that are the basis for a variety of international educational forums, such as Global National Education Leadership Summit, Higher Education Forum, K12 Education, International Education, Quality and Specialty Education, Online Education, Preschool Education Forum, and others. These forums are platforms for discussing the features of implications of management models in education and science, as well as their use as a nominal or real force in the educational policy of countries [15].

The term “quality of education” used by the Ministry of Education and Science of Ukraine, and in accordance with which it implements the reforms of the management of higher education institutions, does not convey the true scale of modern modeling of the educational process. In addition, the term does not reveal the true capabilities of management models that are used in modeling the educational process. These meanings are not as well revealed in the book by Schleicher, recommended by the Ministry of Education and Science of Ukraine. As it was noted above, this book pursues a different purpose and tasks.

In the educational policy of the world’s leading countries, the quality of education as well as, accordingly, the reform of higher education management is defined by another term – “total quality management (TQM)”. The implications of this term in educational policy provides for reforming the management of higher education institutions based on international experience. To understand the importance and features of the implications of total quality management in the educational policy of Ukraine, we briefly consider the history and meanings of this term. Walter A. Shewhart, an engineer at Western Electric and Bell Telephone Laboratories, developed the meanings of the term “Total Quality Management (TQM)” in the mid-1920s. Shewhart created a statistical control that, if used in modern terminology, made it possible to “digitize” the quality control of planning and production at any organization.

In the 1950s, an engineer Joseph Juran significantly improved Shewhart’s methods. His book Quality Control Handbook, published in 1951, had a key influence on Japan’s post-war economy. These were the ideas of Juran, who gave lectures on statistical control in Japan during that period of time, which formed the basis for new views on ordinary employees of Japanese companies. From a disenfranchised labor force, they became the key actors in production quality control.

The rapid growth of the Japanese economy in the 1950s and 1960s was a success for the ideas of Shewhart and Juran. Bringing their ideas together formed a management method called Total Quality Management (TQM). Almost all leading Japanese corporations used it as their primary management model. In the 1970s and 1980s, the “total quality management” method proved effective in the United States, allowing the American economy to become the world’s leading economy. The American phrase “total quality management” means focusing on improving processes in the long run. This management model is not geared toward the short-term achieving profit at any cost.

The implications of quality management system involves mutual cooperation and common interest of all the employees of an organization. This management method contrasts with approaches that use radical changes or top-down instructions to provide organizational change and achieve the set goals. Total quality management method is the basis for “lean manufacturing” or the Toyota Way. As practice has shown, the implications of total quality management in the manufacturing sector leads to the reduction in the number of defects, elimination of waste and an increase in productivity. This method promotes the goals and their achievement, increases the responsibility of the employees of the organization, and stimulates the promotion of innovations.

The implications of total quality management in educational management began at the end of the twentieth century. The implications involved the creation and implementation of systematic programs in educational policy that viewed an educational institution as a comprehensive organization. The introduction of the new management method ensured continuous improvement of each member of the organization and the entire organization taken as a whole.

The implications of total quality management in education consist of two somewhat different, but generally related processes. The first is the adoption of the philosophy of continuous improvement of the educational process that reveals a new vision of managing an organization. The second is the mastery of a set of practical actions that consists of tools and methods aimed at promoting continuous improvement. For example, Edward Sallis in the book “Total Quality Management in Education” revealed the implications of total quality management in organizing the scientific process. Sallis showed that the implications primarily affect the management of educational institutions, since it is a new philosophy and methodology of management. Managing requires not only knowledge of the features of total quality management. Management must acquire practical skills that include new approaches to address organizational, leadership, and teamwork issues [16].

The implication of total quality management in higher education management involves a shift from short-term experience to long-term quality improvement. In fact, it is a return to the meaning of ancient paideia, when a teacher was regarded not as a bearer of knowledge, but as a mentor and guide to life. The teacher defined the student’s way of life, forming his/her involvement not only in current life processes. The teacher ascended with the student to the image of a higher idea or to universal consciousness [17].

Tracey Richardson and Ernie Richardson argue that the implication of total quality management is, first and foremost, a new culture of managerial thinking. They considered it a
success story of the Toyota Production System (TPS). This culture was called “The Toyota Engagement Equation” [9]. What matters is the fact that Tracey Richardson, one of the authors of the book, has 28 years of experience working with Toyota methodologies. She is a co-owner of Teaching Lean Inc., which helps to implement the methods of total quality management in manufacturing and in education. According to the authors of the book, the implication of total quality management in higher educational management turns these organizations into “Learning People Systems” [9].

S. Sahney claims that to achieve the competitiveness of educational institutions, as well as to survive and succeed in the long run, the implications of total quality management is a prerequisite. Focusing on engineering and administration institutes, Sahney tried to develop an integrated and customer-centered model of quality management in education through the use of several methodologies to evaluate the service quality. Sahney placed major emphasis on improving the service and developing educational services by incorporating the voice of the customer (VOC) [18].

In general, the implication of total quality management in higher education management involves the following steps:
1. The process of managing a higher education institution. It includes strategic planning; recruitment and training of staff; providing resources and agreeing on what they teach, how they teach and how they assess learning outcomes. E. Psomas and J. Antony studied the implications of total quality management in 15 private higher education institutions in Greece. The evidence of the results of these implications proves once again the effectiveness of this method of management in the growing competition in the market of educational services [19].

2. The process of improving the quality of teaching. Students are viewed as buyers of educational services and at the same time as participants in the educational process. Administrators involve students in their own education, teaching them to evaluate the learning process and accept responsibility for their learning. According to the study by L. Hickman and M. Akdere, about a third of US voters believe that colleges and universities have a negative impact on the nation, demonstrating that quality assurance is not pursued in higher education. The authors show how the combination of Stakeholder theory (ST) and Total Quality Management (TQM) change the practices in the context of the US educational policy [20].

3. The process of improving the quality of the work of employees. The staff working in higher education are required to change attitudes and methods of work aimed primarily at improving the quality of the educational process. Firstly, the determination of appropriate working conditions. Favorable working conditions have a key impact on the employees’ ability to do their jobs properly and effectively. Secondly, encouraging employees and recognizing their successes and achievements are of importance. Ordinary employees should have the opportunity of career advancement. They need to be confident that their efforts will be appreciated and that the goals they have achieved will lead to even greater success in the organization.

The implications of total quality management in higher educational management are usually performed by a series of small complementary projects. The philosophy of total quality management is inherently large-scale, inspiring and comprehensive, but its practical implementation is phased, very practical and consistent. The durable and lasting changes are based on a long series of small and achievable projects.

**Conclusions.** Consequently, the implications of total quality management in the educational policy of Ukraine are enriched by its international experience of reforming the management of higher educational institutions of the world’s leading countries. The reforms of 659 institutions of higher education, currently implemented by the Ministry of Education and Science of Ukraine, is based on international management experience, which has proven effective in reforming the management of the world’s leading universities. The implications of international experience in Ukrainian educational policy will help to avoid irreparable mistakes in reforming the management of higher education institutions with rich history and established traditions, which collectively shape the identity of Ukrainian science and education.

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Імпіляція загального управління якістю в українських вищих навчальних закладах: міжнародний досвід

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Мета. Вивчення особливостей імпіляції системного управління якістю в освітньо-наукову політику України. Імпіляція системного управління якістю є важливою складовою освітньої політики провідних держав світу. Її впровадження в українську освітню політику є необхідною умовою підвищення ефективності реформування управління українськими вищими навчальними закладами.

Методика. В якості головного методу дослідження автори використали компаративістський підхід. Це дозволило ім дослідити зміст ключових термінів освітньої політики: якість освіти, яка використовується в нормативних документах Міністерства освіти і науки України, а також «системне управління якістю», яке використовується в директивах, які визначають освітню політику провідних держав світу. Використання емпіричних і теоретичних методів дослідження, таких як аналіз, синтез, класифікація, моделювання та ін., допомогло авторам встановити різницю із загальними принципами із двома термінами. Результати. У сучасних дослідженнях освіти розглядається як поведінкова модель, в якій важливе місце займають управленські моделі. Автори розглянули історію формування смислу терміну «системне управління якістю» (TQM), а також особливості його імпіляції в освітню політику України, що спрямована на реформування управління вищими навчальними закладами.

Наукова новизна. Спираючись на міжнародний досвід, автори довели, що імпіляція системного управлення якістю в українську освітню політику значно підвищить ефективність реформування управління вищими навчальними закладами. Імпіляція системного управлення якістю відноситься до історії формування сенсу терміну в Україні. Спеціалісти системного управління якістю пов’язують міжнародний досвід реформування управління вищими навчальними закладами в державах Європейського Союзу, США, Японії та ін.

Практична значимість. Імпіляція системного управління якістю збільшує освітню політику України міжнародним досвідом реформування управління вищими навчальними закладами провідних держав світу. В основу реформування 659 вищих навчальних закладів, що здійснює Міністерство освіти і науки України, закладається міжнародний управленський досвід, який довів свою ефективність у побудові економікі Японії, США та ін. держав, і особливо в досягнутіх вищими навчальними закладами високих зв’язків у системних рейтингах провідних університетів світу. Імпіляція міжнародного досвіду дозволить Міністерству освіти і науки України уникнути непоправних помилок у реформуванні управління вищими навчальними закладами, які мають багату історію і традиції, що складає, та які в сукупності формують ізбіжність української науки та освіти.

Ключові слова: системне управління якістю, якість освіти, вищі навчальні заклади України, освітня політика, реформування управління

Імпіляція системного управління якістю в українських вищих учебних заведеннях: міжнародний опит

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Цель. Изучение особенностей импликации системного управления качеством в образовательную политику Украины. Импликация системного управления качеством является важной составляющей образовательной политики ведущих государств мира. Её внедрение в украинскую образовательную политику является необходимым условием повышения эффективности реформирования управления украинскими высшими учебными заведениями.

Методика. В качестве основного метода исследования авторы использовали компаративистский подход. Это позволило им исследовать смысла ключевых терминов образовательной политики: «качество образования», которое используется в нормативных документах Министерства образования и науки Украины, а также «системное управление качеством», которое используется в директивах, определяющих образовательную политику ведущих государств мира. Использование эмпирических и теоретических методов исследования, таких как анализ, синтез, классификация, моделирование и др., помогло авторам установить разницу и общие принципы между двумя терминами.

Результаты. В современных исследованиях образования рассматривается как поведенческая модель, в которой важное место занимают управленческие модели. Авторы рассмотрели историю формирования смыслов термина «системное управление качеством» (TQM), а также особенности его импликации в образовательную политику Украины, направленную на реформирование управления высшими учебными заведениями.

Научная новизна. Опираясь на международный опыт, авторы доказали, что импликация системного управления качеством в образовательную политику является необходимым условием повышения эффективности реформирования качества образования в Украине. Именно с импликацией системного управления качеством связан международный опыт реформирования управления высшими учебными заведениями в государствах Европейского Союза, США, Японии и др.

Прaktическая значимость. Импликация системного управления качеством обогащает образовательную политику Украины международным опытом реформирования управления высшими учебными заведениями ведущих государств мира. В основе реформирования 659 высших учебных заведений, которое в настоящее время осуществляет Министерство образования и науки Украины, закладывается международный управленческий опыт, который доказал свою эффективность в построении экономики Японии, США и др. государств, и особенно в достижении высшими учебными заведениями высоких мест в мировых рейтингах ведущих университетов мира. Импликация международного опыта позволит избежать Министерству образования и науки Украины непоправимых ошибок в реформировании управления высшими учебными заведениями, имеющими богатую историю и сложившиеся традиции, которые в совокупности формируют идентичность украинской науки и образования.

Ключевые слова: системное управление качеством, качество образования, высшие учебные заведения Украины, образовательная политика, реформирование управления

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