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**Innovation management of quality in higher education of the Republic of  
Kazakhstan**

6D051700 - Innovation Management

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## **NORMATIVE REFERENCES**

The following normatives and standards have been used in this dissertation thesis:

100 Concrete Steps to implement Five Institutional Reforms of Elbasy Nazarbayev, May 2015

the Law “On Education” from November 13, 2015 № 398-V

The State programme on Development of education and science of the Republic of Kazakhstan for 2016-2019

The Address of the President to the Nation of the Republic of Kazakhstan, 2 September 2019

The State programme on Development of education and science of the Republic of Kazakhstan for 2020-2025 (amended in 27 December 2019)

Regulations of recognition of accreditation bodies, including foreign ones, and formation of registers of recognized accreditation bodies, accredited educational organizations and educational programmes Approved by the order of the Ministry of Education and Science of the Republic of Kazakhstan, No.629 of November1, 2016.

Resolution of the Government of the Republic of Kazakhstan dated October 11, 2019 No. 752 On some issues of higher educational institutions of the Ministry of Education and Science of the Republic of Kazakhstan.

## NOTATIONS AND ABBREVIATIONS

HE	Higher Education
HEI	Higher education institution
QA	Quality assurance
QM	Quality management
QC	Quality culture
ESG	European Standards and Recommendations
IAU	International Association of Universities
NPM	New Public Management
EHEA	European Higher Education Area
DEQAR	The Database of External Quality Assurance Reports
EQAR	The European Quality Assurance Register for Higher Education
ISO	The International Organization for Standardization
TQM	Total Quality Management
EUA	European Universities Association
INQAAHE	International Network for Quality Assurance Agencies in Higher Education
ECCE	European Network for Quality of Education
WoS	Web of Science
ENQA	European Association for Quality Assurance in Higher Education
EFQM	European Foundation for Quality Management
PDCA	Plan, do, check, act
IREG	International Ranking Expert Group. Observatory on Academic Ranking and Excellence is an international institutional non-profit association of ranking organizations, universities and other bodies interested in university rankings and academic excellence.
NEF Consulting	New Economic Foundation is a consultancy founded in 2008 in the UK to help private and public sector organizations including universities in a transition to a new economy.

## INTRODUCTION

**Description of research thesis.** The dissertation has been carried out to propose an innovative quality management practice in universities from perspectives of business quality management tools.

**Relevance of the research thesis.** The concept of ‘quality’ is not a new concept in the academic field. However, there is no single common definition of quality in higher education, since it is a multidimensional and dynamic concept. There are different debates about the conceptualization of ‘quality’ in higher education, which will be discussed in the first chapter of the dissertation. We can conclude that to define the concept of ‘quality’ it is important to understand the needs of potential stakeholders, as well as the context of university it works and its mission.

Classic scholars Meyer and Rowan claimed that if quality management is introduced because of external pressures and requirements, like governmental regulations, the outcome will be no efficient and there will be nothing to do with internal organizational changes. According to them, values, behaviour and structure of higher education institutions are shaped by an external environment. Thus, it is worth to note that institutionalism can be a useful tool for policymakers and quality managers to determine appropriate organizational structures and their response to the external environment [1].

One of the major topics investigated in this research thesis is the way higher education institutions respond to external forces in the context of increasing competition for students, funding, market shares and rising accountability of universities for quality in the framework of autonomy. Apart from strategic planning and decision-making procedures, the more necessary condition for the survival of an organization is innovation in university management through introduction of effective quality management.

In this regard, we refer to the well-known conceptualization of ‘innovation’ existing in the literature, which mainly covers technological, scientific innovation, defined as a new product or technology. However, there is a growing interest among scholars in ‘management innovation’. For instance, Birkinshaw and Hamel define management innovation as “Invention and implementation of a management practice, process, structure, or technique that is new to the state of the art and is intended to further organizational goals” [2].

In the global literature, there are diverse classifications of innovation. To illustrate, OECD (2005) identified four types of innovation: product innovation, process innovation, **organizational innovation**, and marketing innovation [3]. Another classification proposed incremental and radical innovation. The final one classifies innovation as low, medium, high and very high based on the technological uncertainty [4]. Admittedly, the common trend of all listed classifications of innovation is the emergence of something new whether it is a product, process or technology, and introduction of significant changes into the existing practice to foster more innovation capabilities of an organization. While a number of studies deal with technological innovation, as reported by Hollen, van den Bosch, the recent studies are dedicated to the importance of management innovation, which mainly deals with organizational,

administrative and managerial innovations. The authors identified four dimensions of management innovation: new managerial practices, processes, organizational structures, and techniques [5]. In the same manner, there is a school of thoughts calling management innovation as non-technological innovation emerged in contrast to technological product, process innovations. According to scholars in the field of management, management innovation is ‘new organizational structures, administrative systems and management practices’ [6]. Following, scholars of management studies pointed out that in light of external pressures, organizations responsiveness and potential do not only depend on introduction of new products or services, rather competition promotes more technological changes and fosters to reconsider organization’s internal structures and management approaches [7]. In the management literature, the concept of ‘management innovation’ is introduced as a part of organization management addressing to ‘changes in what managers do and how they do it’ [8]. According to the mentioned scholars, by changing the way the administration set goals, make decisions and motivate employees, management innovation enables to enhance effectiveness, efficiency of organization’s internal activities, improve productivity and competitiveness. The interesting point of this concept is that in light of competitiveness and improvement of performance, management innovation impedes the replication by other organizations due to its ‘internal and intangible nature’, which is complex and ambiguous, as well as unique for organization, which is adopting new practices and approaches of organization management. There is no unique single definition for management innovation. However, the earliest studies referred to management innovation as new structures and patterns of management in an organization [9]. In the same manner, the study provided by Vaccaro, Jansen, van den Bosch and Volberda conceptualized management innovation as new practices and approaches in management and administration, intended to improve organization performance [7]. Seminal contributions were made by other researchers, who defined management innovation as ‘generation and implementation of management practice, process, structure or technique that is new to state of the art and is intended to further organizational goals’ [2].

Furthermore, it is worth to note, that management innovation is about changes emerged from introduction of new practices, processes and the way, how they are coordinated by managers. As reported by Hollen, van den Bosch, Volberda and Mol, Birkinshaw, management innovation enables organizations to adopt diverse innovative and technological practices to coordinate activities effectively and to assure organization’s growth and profitability [5, 10]. In the same manner, Liozu and Hinterhuber pointed out that management innovation can provide sustainable competitive position of firms through implementation of various ‘policies and procedures’ to seize available resources in an effective way [11]. In the same manner, development of new methods for distribution of responsibilities and decision-making processes among employees enhances motivation of internal members and their commitment to respond to the needs of stakeholders.

Li and Atuahene-Gima claimed that any management strategy or practice that an organization implements for the first time represents an innovation, regardless of

whether it has been implemented before in other organizations based on Leiblein and Madsen's assumption on innovation [12, 13]. According to authors, innovation takes place when the new method or practice is introduced in an organization for the first time, following other activities to be 'adoptions', which will fit to the structure, internal environment of an organization.

Admittedly, management of innovation deals mainly with the introduction of management practices. Thus, after defining the significant role of management innovation in the improvement of productivity and performance of an organization, we reveal that organizational innovation is a key tool to enhance performance of an organization in a dynamic environment, which is 'non-technological process innovations included in the knowledge and skills of organization members' [14]. Today, knowledge and innovation driven society, demands of modern economy as well as emergence of market-oriented approaches in higher education sector enforce universities to reconsider their current existing quality management practices and to enhance their competitive potential at labour and education markets. Dynamic state of external environment, high level of competitiveness in the field of higher education and academic freedom of higher education institutions have triggered the need for implementation of multi-level quality management approaches.

Thus, acknowledging the role of management innovation to foster competitive advantage and sustainable performance of organizations, as well as emphasizing managerial practices and techniques of organizational innovation, the ultimate goal of the dissertation thesis has been introduction of new innovative approach in quality management of higher education to assure quality education and to promote competitive potential of universities.

Following the issue of quality management in higher education, it has been on the agenda of various national and international discussions worldwide. For national universities of Kazakhstan, the issue of quality management and quality assurance has been one of the key strategic tasks of university management after higher education system of Kazakhstan joined the Bologna process in 2010. The development of economy, transformation of higher education institutions into non-profit organizations, reforms in management of universities, the increasing competition at the labour market, as well as the changing demands of the external environment have led the issue of quality and quality management as the most important topic of current university administrators' agenda. Although higher education institutions in Kazakhstan implement external quality assurance procedures and promote quality management through quality policies, there is still a lack of quality management procedures described internally. Despite the existence of quality departments and offices in universities, the structure still is not decentralized. Equally important, for the last decades universities in Kazakhstan has been facing external pressures and high competition in light of marketization, managerialism, performance-based evaluation and accountability for quality. The increasing pressure from various external stakeholders (employers, society, government, students) and recent governmental reforms on granting more autonomy to higher education institutions have challenged university administration to reconsider the way they govern and respond to the external

requirements and changes. Therefore, research about quality management in higher education remains relevant and highly significant.

**Degree of elaboration of the research topic.** The issues of quality management in higher education institutions have been described among foreign studies, which have addressed the topic of quality management in terms of continuous improvement and enhancement of accountability. The conceptualization of quality in education and quality management in higher education, as well as models and approaches to effective quality management are encompassed by studies of Elton, Krause, Kemenade, De Groot, Vinkenburg, Harvey and Green, Materu, John Dew, Gola, Reavill, Schindler, Viljoen, and van Waveren, Stukalina, Steven Loomis and Jacob Rodriguez, Brennan and Shah, Toma's Fe'lix Gonza'lez-Cruz, Vlasceanu, Grünberg and Pârlea, Gornitzka, Kyvik, Larsen, Elken and Stensaker, Kanji and Tambi, Montano and Glenn, Spanbauer, Weller. However, there is almost a shortage of studies on discussion of quality management issues from perspectives of internal governance organization. The majority of the studies concentrate on the discussion of external quality assurance mechanism and there is almost a lack of studies dedicated to how internal quality assurance processes are implemented and organized within an organization, an area that has received little attention to date. The contributing paper on management of quality assurance processes to the existing literature has been provided by foreign scholars such as Agasisti, Barbato, Dal Molin and Turri, Broucker and De Wit, Frølich and Caspersen, Vidovich, Bleiklie and Kogan, Enders and Westerheijden, Jarvis, Cheng, Gumport, Rosa and Teixeira, Mourad.

The most interesting point about quality assurance is that majority of studies about quality are based on perspectives of either students or employers, and there is considerably a shortage of studies on identifying the viewpoints of academics on quality apart from Lomas, Newton, Westerheijden, Hulpiau, and Waeytens. Thus, we can assume that the reason for ineffective quality management is underestimation of all internal stakeholders' engagement in quality assurance and decision-making processes.

A growing body of literature has examined the organizational responses of universities to external pressures from the government, employers and society through analysis of institutional theory. Today HEIs in Kazakhstan face strong pressure from the external environment to adopt certain structures and management system for the reasons of accountability and competition for human and financial resources. In light of governmental reforms introduced in Kazakhstani higher education system, the study of the governance and management processes in higher education from perspectives of institutional theory is crucial. The shift from the old type of governance to the new one – market-oriented governance opens up new insights into university management in terms of institutional change. Emerging governmental changes and opportunities linked to new institutional governance will challenge higher education institutions to take more innovative and complex decisions. However, discussions of quality management processes in the field higher education from perspectives of institutionalism have been founded only among papers of foreign scholars such as Croucher and Woelert, Seyfried and Ansmann, Komotar, Zgaga, Marginson and



Considine, Marginson and Marshman, Baker, Vicki, Baldwin, Roger, Lockett, Wright, Wild, Ward, Hsuying, Lu, Ming-Tsan, O'Connor, Brendan, Xie, Huang, Wei, Seema, Haque, TitiAmayah, Liu, Levin, John, Aliyeva, Laurencia, Kohoutek, Jan, Aslan, Imran; Gunes, Pinar, Croucher, Gwilym, Woelert, Peter, Martin-Sardesai, Irvine, Tooley, Vyacheslav, Maskaev, Savko, Acer, Karatas; Guclu, Nezahat, Paquibut, Rene Ymbong, Striedinger, Ju, Lewing, Morgan, Shehane, Melissa., Armstrong, Mary, Jovanovic, Mampaey, Jeroen, Stevie; Warshaw, Jarrett, de Castro Casa Nova, Costa Lourenco, Leitao Azevedo, Vyacheslav, Savko, Maskaev, Turner, Lauren, Angulo, Trechsel, Zimmermann, Graf, Lee, Ruth Vance and Kelly, Rosemarie.

As for regional studies on issues of quality and quality management in higher education, it is worth to note Mutanov G.M., Minazheva G.S., Zheksembekova B.A. Alinova M.Sh., Praliyev S. Zh., Abdualiyev A.B., Kusainov A.K., Sarybekov M.N., Tsoy S.N., Khwan Z.V., Beibitov B., Aliyev, Monobayeva A, Hartley, M. Sagintayeva, Kulekeev Zh.A. The reason for few number of domestic studies on quality management relevant to our research thesis is that the considerable number of studies have addressed the topic of quality management in higher education from perspectives of compliance with ISO and international standards, university-industry correlation, as well as a number of studies have focused on the role of information technologies to improve quality of education. Thus, there is almost a lack of research studies on discussion of quality management in higher education institutions in the context of adoption of business quality management approaches, as well as in regards to improvement of quality management practices from perspectives of internal governance development and internal organization management. Therefore, we can claim that the shortage of regional research studies about the issues of quality management in the context of implementation of business alike approaches through focusing on the role of internal organization of universities demonstrate the importance and significance of our research dissertation. Secondly, our research topic is the first attempt to adapt the business quality management approaches in higher education at the regional level. Finally, the number of domestic dissertation theses demonstrates almost a lack of studies on quality management of higher education from perspectives of business quality management approaches.

Thus, we can claim that the innovativeness of our research thesis is an introduction of adapted innovative management approach in university management to ensure effective quality management, which encompasses both internal and external parties of higher education institutions.

During the national Address to the people of Kazakhstan in 2019, President Kasymzhomart Tokayev declared that "Constructive public dialogue is the basis of stability and prosperity in Kazakhstan" [15]. In his Address to the people, the President highlighted the importance of improvement of quality in higher education and emphasized the need to develop the mechanism of preparing quality graduates competitive at the labour market. In light of the state resolution on transformation of national universities to non-profit organizations according to the 78 Step of the Plan of the Nation "100 Concrete Steps to implement Five Institutional Reforms of Elbasy Nazarbayev" and State programme on Development of education and science of the

Republic of Kazakhstan for 2016-2019 years, as well as the State programme on Development of education and science of the Republic of Kazakhstan for 2020-2025 years (amended in 27 December 2019), the universities are expected to gain academic, financial and managerial freedom, which in turn increases the competition among universities at the education and labour markets. In this regard, it is significantly important for university management to reconsider their organizational behavior and to sustain the capability of maintaining competitive at the market through focusing on quality management practices. In this regard, the logic of adapting business quality management approaches in higher education stems from the fact that after the transformation of governance type to the business one, the behavior of universities will be alike business organizations. Claiming that, our research proposes the business excellence approach (EFQM) into university management, which is to be implemented not through pressure or regulations or control, rather through adaption approach, where every single peculiarity and characteristic of universities are considered and developed in the framework of normative isomorphism through putting much emphasis on the professionalism and potential of university's tangible and intangible assets.

The existing literature on the applicability of the EFQM excellence model in higher education mainly refers to foreign scholars like Hides, M.T., Davies, J. and Jackson, S., Calvo-Mora, A., Leal, A., and Roldán, J.L, Porter and Tanner, Tari, Tóvölgyi, Nenadál, J., Adel, A., Osseo-Asare, A.E. and Longbottom, D., Campatelli, G., Citti, P., and Meneghin, A., Dahlgaard-Park, Biehl, Kanji G.K. and Tambi, A.M., Montano, C.B. and Glenn, H.U., Spanbauer, S.J., Weller, L.D., Allen, I.E., Cullotta, P. and Gonzales, H., Kosaku, Y., Landesberg, P., Martin, J.R., Detert, J.R. and Jenni, R., Evans, J.R., Farrar, M., Goldberg, J.S. and Cole, B.R., Zink, K.J. and Schmidt, A.

#### **Purpose and object of the research study.**

**The purpose of the research thesis is to develop innovative approach for quality management of higher education in Kazakhstan.**

The objectives of the dissertation is:

1. To conceptualize theoretically and methodologically the notions of quality in higher education.
2. To validate and define main features and central indicators of university governance in Kazakhstani HEIs
3. To study the concept of internal governance and to propose the conceptual model of effective internal governance for quality management in light of university transition to non-commercial organizations
4. To justify the applicability of business alike quality management approaches in the context of higher education based on foreign practice.
5. To investigate the applicability of the business excellence model EFQM in higher education based on foreign practice
6. To propose the adapted version of the business excellence model as an innovative approach in quality management applicable in higher education and its implementation mechanism.

**The object of the research is national universities in Kazakhstan subject to transformation of governance type into non-commercial types of organizations. As the**

object of our research paper, we concentrated on higher education sector in the context of current radical changes and reforms being introduced at the governmental and institutional level (transformation of national universities governance type into non-commercial types of organizations).

**The subject of the research is** development of a new innovative quality management model in higher education in the context of applicability of business quality tools.

**Theoretical and methodological base of the research.** The theoretical base of the research has been the studies and materials of foreign and domestic literature. The methodological aspect of the research work has applied qualitative and quantitative methods. To illustrate, the findings of the research work have been obtained using quantitative research methods such as survey, literature review, systematization and content analysis. The qualitative research has been carried through field observation, focus-groups and interview. In addition, supplementary methods as adoption method and the mathematical analysis SPSS factor analysis, regression analysis, variance analysis have been applied to proceed the obtained data. The peculiarity of the research work is that it applied synoptic method and employed polymathic approach to receive more interdisciplinary analysis of the issue ‘quality management’.

**The information sources of the research.** As the source for the information base has been the Official Site of the President of the Republic of Kazakhstan, the Ministry of Education and Science of the Republic of Kazakhstan, the National Register of Recognized Accreditation Bodies, the National Register of Accredited educational organizations, the National Register of accredited educational programmes, Information statistics of the Bologna process and Academic Mobility Center Ministry of Education and Science of the Republic of Kazakhstan, QS World University Rankings 2020, Database of External Quality Assurance Reports (DEQAR). In addition, research sources such as well-known database Web of Science Core Collection, Springer, a global information analytics provider Elsevier, abstract and citation database Scopus, the digital library of Saxon State and University Library Dresden SLUB, the digital library of the Dresden University of Applied University, Taylor & Francis, National Resources of Dissertations,

**The scientific novelty.** The crucial point of the research thesis is the study of applicability of business models in public organizations as an innovative quality management tool through focusing on the improvement of internal governance of organizations. The following scientific findings have been achieved during the research:

1. The author’s own conceptualization of the term ‘quality in higher education’ from perspectives of stakeholders’ perceptions.
2. The research has validated and identified fundamental indicators of university governance in Kazakhstani HEIs
3. The author has developed a new innovative approach to quality management in higher education from perspectives of internal governance applicable solely in the context of higher education.

4. Justification of the applicability of business alike quality management tools in the context of higher education based on foreign practice.
5. The applicability of the business model in the context of higher education has been studied based on foreign practice
6. The author has justified theoretically the applicability of the EFQM excellence model in higher education by highlighting the importance of adoption approach in implementing a quality management tool.

**The main provisions subject to defence.**

1. The author's own conceptualization of the term 'quality in higher education' from perspectives of stakeholders' perceptions
2. Justification of applicability of business quality management techniques in higher education through the study of university governance types
3. Development of the adapted version of the EFQM excellence model as an innovative quality management tool in higher education
4. Recommendation on improvement of quality management practices in Kazakhstani HEIs based on adopted version of the EFQM model

**Theoretical and practical significance.** The theoretical value of the research and its contribution to the regional literature is tremendous, since the issue of quality management in higher education has been studied in the context of application of business quality management tools. Secondly, the findings of the theoretical analysis have shown almost a lack of domestic research studies focused on investigation of internal organization of the university in light of university governance type transformation. As has been identified, the majority of studies, discussions and arguments about quality management in higher education deal only with issues of teaching and research, leaving almost no room to the organizational behavior of the university and its response to external pressures in light of increasing competition and accountability for quality among higher education institutions in Kazakhstan. Equally important, the results of the research thesis can serve as a valuable guideline for university administrators and quality managers in light of their acknowledgement about greater importance of effective quality management to ensure quality education and competitive graduates to the labour market.

On the whole, the current research thesis investigates the internal governance of university as a specific type of quality management in an organization, proposes an effective model for internal governance, which will serve as an innovative non-technological process for university administrators to effectively and efficiently fulfil requirements of external environment and implement newly-introduced practices aimed at quality education without undermining the core mission of universities.

Finally, the practical significance of research thesis is that it can serve as a guideline for regional academics, scholars, university administrators and quality managers to formulate their quality management processes in accordance with adopted business excellence model EFQM, redesigned solely for higher education context.

**Approbation of the main findings of the research thesis.** The main results of the dissertation thesis have been presented in proceedings of foreign and regional international scientific-practical conferences. To illustrate, international scientific-

practical conference “Inclusive, economic development: Directions, priorities, drivers – 2017 (Kazakhstan), VI International Farabi Readings, international scientific-practical conference “Kazakhstan in a multipolar world: Economicscenarios” – 2019 (Kazakhstan), 33rd International Business Information Management Association Conference IBIMA 2019 indexed by WebofScience, Scopus (Spain), E3S Web of Conferences, BTSES-2020.

**Publication of research findings.** The findings of dissertation thesis have been reflected in four regional journals recommended by the CCSES Ministry of Education and Science RK, as well as one - in peer-reviewed journals indexed by WebofScience and Scopus. Four – in proceedings of regional and foreign international conferences.

**The structure of the dissertation.** The research work consists of content, notation and abbreviations, introduction, three chapters, conclusion, references and appendixes.

# **1. THEORETICAL STUDY OF THE CONCEPTS QUALITY MANAGEMENT AND EXCELLENCE MODEL**

## **1.1 The essence and content of the concepts “quality” and “quality management”**

The issues of quality have received more attention during the last decades in society. There is no unique definition for the concept of ‘quality’ in the global literature. According to Elton and Krause it is a multidimensional concept, perceived differently depending on expectations of stakeholders [16, 17]. The conceptualization of the term depends on perceptions and expectations of all involved stakeholders of universities, as well on other factors. Kemenade et al. referred to answering the question “what is Quality of education?” is like defining “what is the quality of life?” There are various arguments about the quality concept. Some argue that conceptualization of quality depends on the object, for instance quality of lecture, curriculum, students or organization of a university [18]. In contrast, De Groot described quality as independent variables, learning outcomes and effects, claiming that quality education is not how we teach, it is, what students learn [19]. However, contrary opinion about quality, which focus on product and manufacture, belongs to Garvin [20]. Vinkenburg argued that quality is something more broad related to events and activities [21].

There are many attempts of researchers to define ‘quality’. Harvey and Green suggest five index for quality: ‘quality as exceptional, quality as perfection, quality as fitness for purpose, quality as value for money and quality as transformative’ [22]. Materu stated that the concept of ‘quality’ is a great challenge to define in the context of higher education, when universities have more autonomy to determine their own visions and missions [23]. While Van Kemenade describes a quality concept in regards to the following factors: object, standard, subject and values [18]. Another scholar framed ‘quality’ in five different ways: Quality as endurance (the older the university, the higher quality, which demonstrates the ability of the university to ensure quality), Quality as luxury and prestige (up-to-date facilities, infrastructure and favourable conditions), quality as conformance to requirements (compliance with improvement programmes), quality as continuous improvement and quality as value added [24]. Gola pointed out that universities differ from each other not only from one country to another, but also depending on the ‘scientific sectors within’ the same country [25]. Following Gola, there can be various quality policy and goals of universities depending on their profile. To illustrate, the focus and the mission of ‘research universities’ can be more different than universities with ‘teaching’ profile. The former concentrate their academic activity more on scientific potential, international recognition and preparation of the most talented research students (in the framework of master and PhD studies). Whereas, the latter could be more labour and society oriented to prepare highly professional specialists to meet needs and demands of the labour market, as well as to create and to transfer new knowledge and technologies to regional business sector. Since the definition of the concept directly depends on stakeholders, we have assumed to identify the main stakeholders of universities. Reavill proposed twelve types of

external and internal stakeholders altogether based on Checkland’ model: 1.students, 2.employer. 3. the family of the student, 4. Universities and their employees, 5. suppliers of goods and services to universities (commercial organisations), 6. the secondary education sector, 7. other universities, 8. commerce and industry, 9. the nation, 10. the government, 11. National and local taxpayers, 12. Professional bodies.

According to Reavill stakeholders are defined based on the basic criteria – gaining benefit from organization or both and paying for the organization or activity [26].

Another scholar has identified funding organizations as ‘providers’ of HEIs, students as ‘users of products’, employers as ‘users of outputs’ and finally academic staff as ‘employees’ of the organization [27]. Thus, the concept of ‘quality’ can be defined for the most part depending on perspectives of stakeholders’ viewpoints [22]. Newton (2002) assumes that quality is ‘contested issue’, which covers competing interests, voices and discourses of all engaged members of higher education institutions [28].

In the regional literature the conceptualization of ‘quality education’ refers to systematic category, comprising quality preparation of students, quality of educational programmes and learning environment, quality of infrastructure, quality of moral-psychological atmosphere, quality of relationship with external environment, quality of university management and quality of academic staff [29]. As reported by Abdymanapova S.A. in the monograph of Mutanov, G.M. conceptualization of quality of higher education depends not on knowledge of enrolled students, rather on what knowledge, skills and competencies acquire students to survive at the labour market. Acknowledging, the importance of outputs, the scholar claims that internal assessment of quality education is not sufficient; instead, external assessment of quality of degree programmes through international accreditation is vital. In the regional literature, the concept of ‘quality education’ has been defined variously, thus we have systematized the term definition in a way to identify main principles of conceptualization and to define key aspects of quality education based on the monograph of Mutanov, G.M. [30]. Please refer to table 1.

Table 1 - Conceptualization of ‘quality’ in education from perspectives of the regional scholars

Author	Concept
Zheksembekova, B.A. Alinova, M.Sh. [31]	Quality education is defined by creation of conditions and mechanisms to control monitor and evaluate students’ knowledge and skills.
Praliyev S. Zh., Abdualiyeu, A.B. [32]	Assessment of quality of educational programmes leads to critical self-assessment and improvement of quality education. It is important to proceed and analyse results of assessment for internal studies and positive changes.
Kusainov, A.K., Sarybekov, M.N. [33]	Quality of education is defined by the extent students reach professional competencies and their involvement in future professional activity in the process implementation of degree programmes.

Continuation of table 1

Tsoy, S.N., Khwan, Z.V. [34]	Quality of education is a social category that reflects the state and effectiveness of the educational process and is characterized by the degree of its compliance with the needs and expectations of internal
	and external consumers in the development and formation of civil, domestic and professional competencies of the individual.
Mutanov. G.M., et al.	Quality of education is not only a compliance of educational system with only the requirements of standards and legal documents, but also quality of education is compliance with requirements of consumers of all categories. It is an integral characteristic and result of educational system.
Note: developed by author based on [30].	

The latest regional study discussing the foreign practices of quality assurance mechanisms and quality management system dates to Minazheva G.S. In her analysis, G. Minazheva defines three aspects of quality education according to the report of the UNESCO Document: the first is quality of staff and study programmes, provided by a combination of teaching and research, their compliance with public demand; the second is quality of study environment and finally, quality of the infrastructure [35]. (Please refer to figure 1).

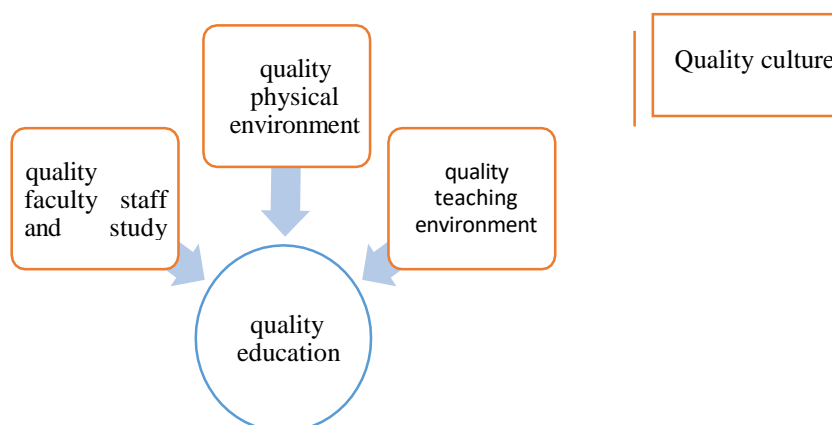


Figure 1 – Components of Quality education

Note – developed by author based on own analysis and [35]

However, Peters and Waterman have claimed that quality management could be successful and effective if processes and systems are supported by quality culture defined in an organization. The research study introducing quality culture as a new element of quality in higher education has been reviewed by recent studies. The recent regional study mainly deals with features and important aspects of quality culture for effective quality management in an organization, through studying cultural-psychological and structural-managerial elements of organizational culture. The authors recommend the university leadership do not neglect the concept of “quality culture”, since the main foundation of the organization is not a system, processes or standards, but a set of values, beliefs within a group and joint commitment to quality [36].



It is clear that as a part of quality education, development of quality culture in an organization is an essential approach of effective quality management. Viljoen and van Waveren defined quality culture as an organizational culture, which provides the responsibility of all engaged individuals for quality [37]. Domovic Vidovic has provided two aspects of quality assurance in higher education institutions (figure 2).

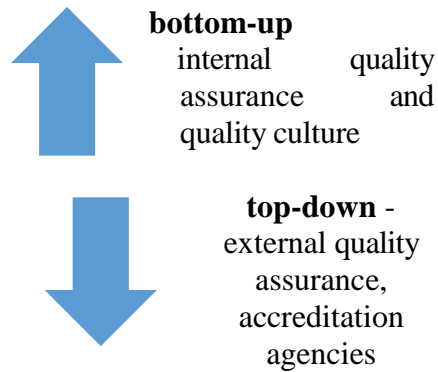


Figure 2 – Aspects of quality assurance in higher education  
 Note – developed by author based on [38]

Steven Loomis and Jacob Rodriguez defined ‘quality’ as ‘an irreducible way to the local scene, to culture and to the individual participant (manager, professor and student), their preferences, aims, needs, the information base they represent...etc.’. When we looked at the other descriptions in the field of business sector, even there is no unique definition for the concept [38]. The majority of descriptions are concentrated on the satisfaction of customers’ needs and expectations. Below, in table 2, the research has summarized key provided definitions of ‘quality’ by the global literature.

Table 2 - Descriptions of ‘quality’ in business sector

Source	Descriptions of the term ‘Quality’
Feigenbaum, 1956 [40]	Quality is full customer satisfaction
Crosby, 1979 [41]	Quality is compliance to requirements
Garvin (1980) [42]	Five approaches to define quality: transcendental approach – quality is not defined clearly, it is defined through experience the product-oriented, the customer-oriented; the manufacturing-oriented approach – compliance with requirements; and the value-for-money approach – quality is a degree of excellence
Imai, 1986 [43]	Quality is continuous improvement involving everyone
Deming 1986 [44]	Quality should be aimed at the needs of the customer, quality is a moving target since customers’ perceptions change and evolve”.
Seymour (1992) [45]	„Quality extends beyond the interaction between the professor and the student in the classroom or the meeting of accreditation standards; strategic quality management is a set of multi-dimensional principles that embrace this broadened definition”
Harvey and Green, 1993 [22]	Quality is perceived as perfection, as exception, as fitness for purpose, as value for money and as transformative.

Continuation of table 2

Scott, 1994 [46]	Quality as excellence, quality as audit, quality as outcomes, quality as mission, and quality as culture
Bergman & Klefsjö 1994 [47]	“The quality of a product (article or service) is its ability to satisfy or exceed the needs and expectations of the customers”.
Lillrank [48]	Production-oriented, product-oriented, value-oriented, environment-oriented, customer-oriented, competition oriented
ISO 9000:2015	degree to which a set of inherent characteristics (3.10.1) of an object (3.6.1) fulfils requirements (3.6.4)
Note: developed by Author based on own analysis	

The systematic study of the theoretical and empirical studies of the foreign literature was the basis for the following scheme of ‘quality’ that is recommended for university administration to follow at the beginning of each academic year to reach effective quality management. The measurement instruments for improvement and for realization depends on the individual strategic planning of universities. As table 3 illustrates, it is important for the university administration to define the needs and requirements of the stakeholders, to identify major gaps in the current processes, to set a plan for continuous improvement, to implement development plans, to monitor and evaluate achieved results, and finally to take measures to eliminate the shortcomings and begin quality management cycle again.

Table 3 – Conceptualization of ‘quality education’ from the needs of different groups of stakeholders

Group	Stakeholders	Expectation	Perception	Gap
Providers	Government, funding and business organizations	Project output, research	Positive	+
			Negative	-
Users of product	Students	Education, service	Positive	+
			Negative	-
Users of output	Employers (industry), society	Professional, competent graduates, specialists	Positive	+
			Negative	-
Employees	Academic staff	Effective Internal governance, Professional development	Positive	+
			Negative	-
Evaluators of HE	Accreditation agencies	Compliance with the ESG standards	Positive	+
			Negative	-
Note: developed by Author based on own analysis				

The identification of the existing gap between expectations and perceptions of each group of stakeholders will define the term ‘quality’ and will steer higher education management in pursuit to quality education.

To summarize the study of the available discussions about the conceptualization of the term “quality”, we propose the following definition: “*Quality education is a*

*broad concept, which depends on perceptions of key stakeholders. Quality can be defined by the gap between expectations and perceptions of stakeholders”.*

The role of external stakeholders is rising in the context of the contribution to the public interest [49]. The term ‘stakeholder’ was firstly introduced in management literature in 1963. It was defined as “*those groups without whose support the organizations would cease to exist*”, which meant without support of stakeholders, the organization will not survive (illustrated in table 4) [50]. M.Rosa and P.Teixeira claim that the minimum presence of stakeholders in the most important decision-making body of university is crucial, where external members are appointed by the internal stakeholders, preserving the priorities and strategies of internal members. This could lead to the internal balance and definition of priorities. The effective engagement of stakeholders in internal quality governance processes are consensually considered as essential elements to the development of quality institutional culture [49].

Table 4 - Identification of stakeholders in the field of higher education

<i>Internal stakeholders</i>	<i>External stakeholders</i>
University administration	Employers
Academic staff	Partners
Students as participants of learning process	Society
Funding organizations	Graduates
	Accreditation Agencies
Note: developed by Author based on own analysis	

**Quality management.** There has been considerable interest in defining the concept of ‘quality’, studying relevance of quality assurance mechanisms, as well as discussions on the actual outcomes and impact of quality assurance mechanisms on quality education [22, 51, 52, 53). However, there is almost a shortage of studies addressing the issue of models or approaches of quality management at the institutional level. Indeed, a few articles have dedicated the issue of quality management at the institutional level from perspectives of external quality assurance related to demands for accountability and quality in higher education sector, as well as models adapted from industry, which focuses mainly on improvement of accountability rather than on enhancement of actual teaching and learning [54]. In this regard, Harvey claimed the necessity of stopping debates about whether quality management is appropriate for higher education or not, instead he proposed to make more emphasis on the content of quality management, rather focusing on label [55].

Brennan and Shah claim that development of relevant approaches to effective quality management depends on the ‘quality values’ and ‘conceptions about what constitutes high quality in higher education’. In this context, the scholars have provided different types of quality values, which focus on identification of appropriate approaches to quality management. Please refer to table 5.

Table 5 – Categorization of quality management approaches

	Subject focus	Quality definition	Tangible asset	Intangible asset (or process)	Hierarchical structure
Academic	Knowledge and degree programmes	Based on subject affiliation and vary across HEIs	Academic values, academic staff, professionals	Teaching and research	Decentralized
Managerial	Institutional focus – policies and procedures	Managerial authority	University administration and quality managers	Good management practices as the key factor for production	Centralized
Pedagogic	People focus- skills and competencies	Staff developers- educational influence	Academic staff	Staff training and development	more standardized delivery process rather than the content of education
Employment focus	Output-focus – graduate standards / learning outcomes	Employment / professional authority	Graduates, employers	Employer engagement to provide quality graduate	decentralized
Note: developed by Author based on [56]					

These provided types of quality conceptualization is common base. Some aspects of quality management can be mission, but this categorization covers achievement of university missions.

Broadly speaking, the concept of quality management is generally accepted as a philosophy of management, which enables organizations to meet customers' needs through continuous improvement of processes, products and services, as well as it is a process, which covers all aspects of university activities [57].

There is another group of scholars who claim that quality management is comprised of inputs, processes and outputs [58]. According to them, inputs – are financial, human and technical resources; outputs – pass / fail rates, graduate employment, and impact on the labour market and society [59, 60]. Since QM encompasses all aspects of activities and processes of university, the scholars discuss to what extent quality management responds to the needs and requirements of stakeholders, as well as whether quality management indeed provides improvements and quality, or just it is merely a bureaucratic management procedure, which leads to internal organizational burden and failure [61].

Vlasceanu L., Grünberg L., Pârlea D. claimed that quality assurance is a range of instruments to develop QM. The first mechanism of QM in HE was mostly promoted

by TQM, ISO 9000 and EFQM [62]. However, today these practices coexist with quality assurance mechanisms and other approaches specific to HEIs [63]. The European Universities Association (2011) listed typical QM mechanisms of the present-day: self-assessment and evaluations procedures, mechanism of degree programme design and development, student surveys on teaching assessment, student and staff satisfaction surveys, student workload assessment, monitoring of students' achievements and employment, analysis of teaching staff quality. There is a school of thoughts about the real impact of external quality assessment processes on higher education [64]. Measurement of quality assessment impacts on higher education processes is complicated due to the complex nature of HEIs [64-67].

Vlasceanu, Grünberg, and Pârlea defined quality management as 'an aggregate of measures taken regularly at system or institutional level in order to assure the quality of higher education with an emphasis on improving quality as a whole' [62]. Analytic Quality Glossary available via the International Network for Quality Assurance Agencies in Higher Education (INQAAHE) website identified quality management as 'the process, supported by policies and systems, used by an institution to maintain and enhance the quality of education experienced by its students and of the research undertaken by its staff' [91]. According to ISO 9000:2015, quality management is achievement of quality policies (3.5.9) and quality objectives (3.7.2), and processes (3.4.1) through quality planning (3.3.5), quality assurance (3.3.6), quality control (3.3.7), and quality improvement (3.3.8).

Several studies discussed the impact of quality management on fostering innovation capabilities of an organization. Most recent papers reported by Toma's Fe'lix Gonza'lez-Cruz considered quality management as 'a source of knowledge creation' because of its continuous improvement and customer-oriented principles, which fosters product and process innovation. A wide scope of researches pointed out that quality management enables organizations to develop wide and close internal network. However, there is another group of scholars studied by Toma's Fe'lix Gonza'lez-Cruz, who claim that quality management enhances development of diverse communication channels within organization's environment. Furthermore, it has been noted that decentralization of the network and environment within an organization at departments is crucial for enhancement of organization's capabilities to recognize and to exploit new opportunities to improve products and processes [57].

Following the discussion about conceptualization of quality management issues, we attempted to further investigate the concepts from perspectives of the regional studies.

The review study on the domestic literature available from 1992 to 2020 about the quality management in higher education has demonstrated the lack of research studies on the issue of quality education and quality management from perspectives of business approaches. The majority of research theses deal with the role of ISO standards to improve effectiveness of HEIs. To illustrate, the monograph issued in 2001 describes the organizational-methodological complex of quality management system in Kazakhstani HEIs in compliance with the ISO standards [30]. Following, this section presents a review of regional literature on issues of quality management.

Firstly, we made a general overview of the number of dissertation available at the “national resources of theses” provided for the period between 1992 and 2020 (figure 3). For the effective study, the search has been narrowed to the field of higher education in the business and economics categories. The review search for the available studies has revealed in total out of more than 5000 research theses in the field of economics, education, organization and management. After the thorough filter, we have attained 27 research papers discussing the issue of quality education and quality management in the field of economics out of 2591 papers. The same approach in the field of education has provided us with only 14 studies out of 2412 dissertations dealing with the issue of quality education. As for the organization and management field, only three PhD theses covering the issues of improving higher education have been identified out of 80 available papers. Please refer to table 6.

Table 6 - The number of studies on quality and higher education improvement

Total	2591	2412	80
Economic sciences	26		
Education		14	
Organization and Management			3
Note: developed by Author based on own analysis			

In the second part of our systematic research, the paper highlights the number of dissertations in respect to candidate and PhD papers (figure 3).

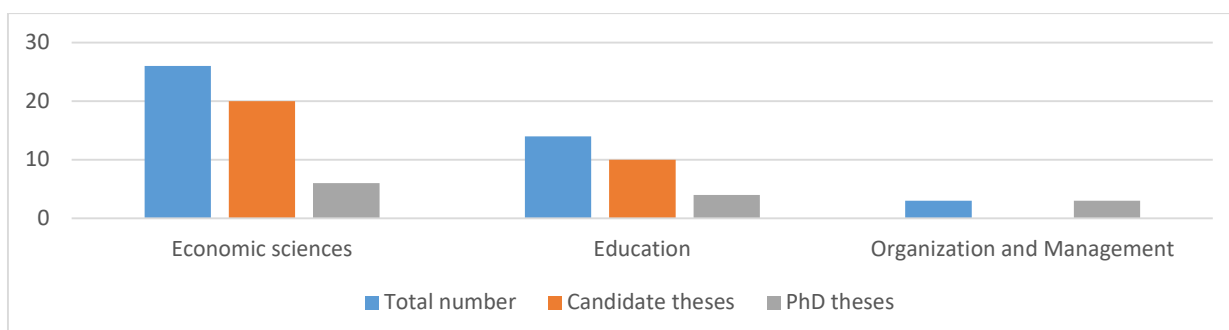


Figure 3 – The categorization of domestic dissertations on the issue of quality management

Source – nauka.kz. National Resources of Theses

The third stage of our research provides systematized collected materials by main discussed issues of analysed theses, as well as data regarding objects of discussion. The majority of domestic research studies concentrate on the interaction of the university and the industry, as well as the role of higher education in economic development and prosperity of the country. In the same manner, there is a group of scholars who focuses mainly on the educational market and improvement of higher education system through various financing channels to comply with demands of the labour market. As an evidence, please refer to Appendix A.

**Economical sciences.** The common trends in domestic (candidate) theses about higher education system is the study of external factors, external environment as a prerequisite for quality education. In addition, the issues of university-industry correlation as well as the role of higher education system in the society and the labour market are on the main agenda of all latest discussions. The role of innovative projects and introduction of process-oriented approaches in higher education management system have also been studied by regional scholars as important factors to improve higher education system in Kazakhstan.

The issues of marketing development of educational services, research and innovation potential of educational market in Kazakhstan as well as the conceptualization of notions “educational services”, “quality of educational services” and “advertising of educational services” in the field of higher education, development of marketing principles in the field of higher education, transfer to market-oriented approach, and the algorithm to reorganize functional and structural organization of the university in align to principles of marketing have been addressed by several scholars [68-73]. The studies in the field of economics demonstrate the popularity of the “Economics Education” [74]. The pursuit of quality education in Kazakhstani studies has been encouraged in part by widespread discussions about the interaction of the labour market and universities [75, 76]. Existing Kazakhstani research on higher education modernization has mostly concentrated on financial channels and opportunities for universities, as well as financial autonomy of HEIs as a way to improve quality of education [77-80].

There is another group of scholars in the field of economics, who covered the role of state governance and control on the development of higher education, process-oriented management of universities, development of innovative project management and innovative technologies in the context of higher education system modernization [81-84].

The research studies carried out recently in the framework of PhD programmes demonstrate deep concentration of studies on the triple interaction of university, science and industry, as well as on innovative activities of HEIs to effectively and efficiently develop economy and welfare of the country. In the same manner, there are studies about the impact of interconnection between labour and educational services markets on economy development of the country. The innovation-oriented universities and the mechanisms of transfer from classical universities to research ones are also on the agenda of research discussions [85, 86].

According to scholars, who examined the competitive potential of HEIs to prosper economy, introduction of competitiveness indicators in light of current economic modernization and development of the model for interaction of higher education, science and business is crucial [87].

Within this group of literature, some papers tried to analyse mechanisms to improve quality management activities of higher education in the context of external quality assessment in compliance with international standards, development of national quality assurance system and quality assessment indicators [88, 89]. In the same manner, another scholar focuses on the whole system of quality management in

compliance to the ISO standards in higher education institutions [29]. Another group of scholars discusses the role of information technologies to quality management of educational processes and the development of higher education policy [90, 91].

There is almost a lack of research studies on organization and development of internal governance in higher education institutions, which is one of the most important pillars of the whole quality management process. However, the single paper, which deals with self-governance issues of HEIs belongs to Beibitov, who investigated organizational and legal aspects of self-governance of universities [92].

Finally, we have to argue with the research paper focused on the improvement of quality of education and graduates to comply with demands of the labour market through improving the control system of higher education [93]. Despite author's findings about the challenges of the state control over HEIs and recommendations to enhance state control through balanced scorecard assessment to evaluate the effectiveness of strategic planning of educational services, the absence of managerial autonomy will cease improvement of quality management in a whole.

**Organization and management.** In recent years, some research theses have paid much attention to the role of leadership, human capital development for the improvement of higher education management, as well as to the development of mechanisms, which deals with issues of graduate employment at state and regional levels [94, 95].

The review of candidate theses in the field of education demonstrates the focus on preparation of specialists in demand at the labour market, diversification of teaching methods in light of changing environment, digitalization of education process to ensure efficiency and effectiveness of university education, as well as development of international partnerships of HEIs worldwide [96, 97].

From the thesis review, we can see that internal organization of quality management in higher education has not been studied so far at the regional level. In light of reorganization reforms in Kazakhstani higher education institutions, the study of the internal governance of universities is crucial at the initial stage of transformation.

We made a literature review at the regional level using the well-known research sources WebofScience to figure out to what extent the issue of quality management in higher education and managerial approaches to improve organization management in HEIs has been studied and discussed from perspectives of business and management views. In our review research, we put an emphasis on the studies of regional scholars. The data is presented in quantity, only naming or highlighting the papers, which are relevant to the research topic.

The findings of the search in the most popular and reliable WebofScience Core Collection database are illustrated in Appendix B. We have sorted out only the ones, which deal with quality education and quality assurance issues.

As can be seen in table 7, the most studies cover the issues of quality education in the context of teaching methods, academic staff competence development, as well as the role of information technologies to ensure quality education process and to assess competency and readiness of graduates to the labour market. Although, there is a group



of authors who investigated the role of information technologies and software to improve quality of education.

Unfortunately, there is shortage of studies dedicated to the discussion of internal governance and organization management to improve quality management of higher education as a whole. In the same manner, the obtained results do not weigh much value and significance, since most of the papers are published in proceeding papers, without double-blinded reviews. It demonstrates poor quality of studies and research on the current crucial and problematic issue of the country.

The search has been refined to Kazakhstan. Quantitative outcomes of the review in Web of Science database is presented in table 7.

Table 7 – Findings of content analysis in Web of Science Core Collection

Keywords	Total relevant publications out of “other fields”	Web of science categories
Quality assurance	9 (out of total 23)	Education Educational Research -9, Management and Business – 2, Multidisciplinary Sciences – 1, Area Studies -1
Quality management	10 (166)	Management and Business – 3, Education Educational Research – 1, Social Sciences Interdisciplinary – 1, Computer Science Interdisciplinary Application – 1, Health Policy Services -1, Multidisciplinary Sciences – 2, Engineering -1, Psychology -1
EFQM	1/1	Eurasia Journal of mathematics science and technology education
Excellence model	0 / 3	-
Quality education	12 / 199	Management and Business – 1, Economics -1, Education Educational Research – 10.
Internal governance	1/ 6	Education Educational research – 1
Internal management	1/ 35	Business – 1
Institutionalism	0 / 1	-
Isomorphism	0 / 18	-
Business model	0/ 85	-
New public management	1 / 23	Business and Management – 1
Organizational change	2/ 30	Education Educational Research-2
Quality culture	0/ 74	-
Note: developed by Author based on own analysis		

While refining the obtained results by “higher education”, each provided paper has been studied thoroughly and only relevant papers to the issue of quality management have been illustrated in the above table.

The papers discussing the issue of quality management, university governance, and autonomy of HEIs have been presented in the Appendix B separately to illustrate the extent of available studies at the regional level.

The review on domestic scholars’ publications in the well-respected and high quality database “WebOfScience Core Collection” provided only the single research paper discussing the implementation of NPM-inspired Bologna process in Kazakhstani higher education [98]. The authors discuss the gaps and drawbacks of higher education system in Kazakhstan after joining the Bologna Process. However, we claim that the most shortcomings discussed by authors are being eliminated with the introduction of more managerial, academic and financial autonomy to universities, promotion of external stakeholders’ involvement into the educational process and support of academic mobility of staff and students. In the same manner, the obtained results of the review provided a single document, dealing with the respond of Kazakhstani HEIs to higher education reforms issues of in terms of shared governance and institutional autonomy of universities [99].

The reason for the study of internal governance in university is that the research has shown that organizations recognized as excellent focus more on people management, which is a backbone of effective quality management [99].

The summary of theoretical study on conceptualization of quality management in the context of higher education is provided below in table 8.

Table 8 - Conceptualization of ‘quality assurance’ and ‘quality management’

Quality assurance	Accountability for quality product /service, in case of HE degree programmes, educational services
Quality management	All quality related activities and processes of organization. The management of the whole organization to ensure quality education
Note: developed by Author based on theoretical analysis	

*The shortage of domestic studies about improvement of quality management practices in higher education from perspectives of implementation of business quality tools in higher education sector through the study and internal organization of university provides the most important impact on the relevance of our study on the role of internal governance of universities to effective quality management of higher education.*

## **1.1 Theoretical analysis of university evolution, mission and its type of organization**

Higher education institutions are one of the oldest organizations in the world. Although, their primary goal is teaching and creation of new knowledge with future transmission to the society, some characteristics of the mission have changed. The root of the research starts from studying the type of organization where universities belong to, secondly outlining major mission of universities and analysing the global literature to figure out the applicability of business quality management techniques in higher education.

In this regard, the research paper has applied the well-respected, widely popular, and highly ranked database as a source for the theoretical analysis on defining missions of universities. By inserting keywords “mission and university”, the following main words in titles, abstract and keywords were searched and timespan was refined for the last 10 years: 2010-2020. The reason for selecting the last decade is justified by the date of European Higher Education Area announcement and by the development of the Standards and Guidelines for Quality Assurance in the European Higher Education Area. Bentley P.J., Kyvik, S. pointed out that according to sociological institutional theory universities are viewed as model driven organizations. The role of universities have been changing due to cultural, historical, political, economic and environmental factors for a long time that have had impact on their structural development and mission [100]. There is a school of thought discussing redefinition of universities based on their economic and social impact. Sanchez-Barrioluengo believes that the role of universities in the society has shaped their primary missions and the third mission - interaction with socioeconomic environment, has appeared apart from teaching and research [101]. Traditional activities of universities have widened. Based on available literature about the role and mission of universities, the research thesis has summarized key points of universities evolution in Europe. Please refer to table 9.

Table 9 – The evolution of the university in Europe

Period	Geography	Mission	Stakeholders	Type of management	Function
Middle ages, XII century	Mediterranean area of Europe (apart from Oxford and Paris completely different)	Primary Mission - teaching	Student and teacher connected by trust and subordination relationships	Authority control	Transmission of truth and knowledge
XIX new era	Germany (appearance of the Berlin University by von Humboldt, which granted an independence)	Mission – teaching, research	Students become not just consumers of knowledge; they become self-learners via research activities under faculty supervision.	Autonomous	Transmission of knowledge, creation of knowledge
XX century	USA	Mission – education, research, knowledge transfer or connection with external environment to fulfil society and economy needs	Idea of multiversity (in 1963 by Kerr, dean of the Berkeley University)	Autonomous, with socioeconomic impact orientation, involvement in socioeconomic progress	Commercialization of scientific results
XXI	USA	The third mission - new role of universities technology transfer	Exploitation of academic knowledge in outside environment for economic and social progress.	Institution involvement in social and economic progress, engagement and collaboration with other actors that deal with research.	Creation of added value
<b>XXI</b>	<b><i>Proposed idea</i></b>	<i>The fourth mission – internal governance of organization for quality management</i>	<i>Students are not only customers; they are a part of the whole organization. Academics responsible for quality product delivery. Apart from employers, society, students and faculty staff are partners of university</i>	<i>Autonomous universities, which focus on engagement of internal parties in all decision-making activities of an organization</i>	<i>Providers of quality management</i>
Note - Developed by Author based on [103] apart from the last description ‘XXI’, which has been proposed by the Author					

The first universities appeared in the Middle Age in Europe, as a part of movement for restoration of culture heritage under the influence of the Church, strong trigger of progress was considered to be a transfer of Medieval Christian philosophy to the society. The primary mission of these social institutions were to transfer knowledge to the society, where there was an interconnected relationship between students and teachers. However, in the first half of XIII century, the role of authority overwhelmed the power in universities. During the Renaissance period, the authority introduced some immune systems for professors and clerics to attract from abroad and not to allow leakage of “brain escape” outside, to other universities. The universities began to educate administrative individuals and to work for the authority, thus losing the control over “scientific knowledge”.

A new era of universities dates to XIX century, when von Humboldt founded the Berlin University. Apart from transmission of knowledge, the mission of universities was creation of new knowledge, since importance of research was highlighted. Universities were part of a national education system governed by the ministry, independent, not dictated what to do by the government.

The third stage of university development refers to XX century in the USA. (However, with respect to Europe, the university in the US created its own system of democracy and wider access to education emphasizing study of agronomic and industrial fields). The revolution to the education system was triggered by several factors: demographic growth, improvements of life conditions through science and technology, increasing number of universities. Thus, for the first time an economic autonomy of universities emerged, which meant sources coming from public contributions, another coming from university-industry collaborations via research. Finally, the third mission of universities was defined: collaboration with external environment to meet expectations and needs of the society through scientific investigation [103].

Currently, the literature defines the new role of universities based on the knowledge-based economy and society model. The first mention of this concept dates to early 1990s and three different types of streams emerged in 1994 by Foray and Lundvall [104]:

*The first stream dates to 1960s when innovation-focused industries emerged [105].*

*In the 1990s, the second stream was focused on identification of industry sectors, which required more intensive knowledge for massive production [106, 107].*

*The third stream concentrated on aspects of management, role of continuous learning and innovation in organizations [108].*

Finally, the era of new universities based on human capital emerged where the role of knowledge was enhanced and knowledge-based economy developed. The knowledge-based economy led to the emergence of “technology transfer”, a process of applying information in practice [109].

Ernest Boyer is considered to be a pioneer for introducing new definition of the university, who studied the directional change of universities directed to serve the

community needs [110]. Rocco Frondizi et al., provided literature analysis of definitions to the new role of universities (table 10).

Table 10 – Role of universities

Concept	Definition
Third stream	This stream is outlined by university activity engaged in knowledge application and exploitation outside (Molas-Gallart et al., and HEFCE). In the same manner, an enhancement of HE activities impact apart from teaching and research on economic development of the society. However, another group of scholars define the third stream of universities as enrichment of learning and employment opportunities for students.
Third role	The role deals with university engagement for regional socioeconomic development.
Third stream income	Commercialization of university knowledge.
Third mission	Application of university intellectual assets outside academic environment for social, economic, environmental and cultural developments. The emergence of entrepreneurial universities and their missions are teaching, research and entrepreneur activities for development of economy and society.
Third constituent	University collaboration with other sectors of society.
Societal impact of research	Evaluation of social, cultural, environmental and economic returns of research outputs.
Social and Business Engagement	Response of research knowledge to changes of society.
Note: developed by Author based on [103]	

Obviously, the research thesis concludes that the third mission of universities focuses on application of university intellectual capabilities and commercialization of research assets for social and economic development of the society.

*In an era of intellectual capital development, in a period where human resources are a major asset of organizations for productive performance and development, the research question to be studied in the thesis is investigation of university response to socioeconomic changes in a competitive world and their activity similar to private organizations in providing quality services and bringing positive impact on development of the society.* Admittedly, the intangible assets of universities seem to build competitive behaviour of HEIs, which are defined by Cricelli, Greco and Grimaldi et al. as an ‘intellectual capital’, whereas Stewart, T.A. singled the terms as “intellectual material, knowledge, experience, intellectual property, information that can be put to use to create value” [111, 112].

The growing significance of studying the third mission has led to the emergence of indicators, which enable higher education institutions and researchers to analyse their performance, improve management activities, to evaluate outputs of research and knowledge transmission. There are some attempts studied in the literature to develop some indicators of the third mission evaluation by analysing data of independent third

parties, surveying employers, collecting information on the quality of research activities on research databases, asking university itself and studying the results of national / international rankings [103].

Nowadays, the role of universities in the society is tremendous. The missions of universities encompass achieving high quality education, high quality research, and high quality output to the society and economy. *Interestingly, there is almost a lack of studies on how the process of achieving an excellence and priority could be managed effectively and how certain organizational values and intangible assets would be engaged effectively in these processes.*

*Application of business-like management models in HEIs is efficient for the so-called 'fourth mission' of universities - improvement of internal management to produce quality teaching, research and to increase innovation in research and development, since business management approaches focus on internal employees who are the main responsible bodies for production.*

There is an assumption, defining universities as non-profit organizations alike business units. Accordingly, their primary goal is generation of knowledge and transmission to the society. It should be noted that application of business-like quality management tools in higher education requires proper study. In the following part of the current research, an insight is made into the types of organizations and which type of organization universities belong to is defined.

In the course of new trends and challenges in a competitive environment, different types of organizations have emerged. There are some arguments considering that top-down structured organizations has declined due to organizational changes. While investigating organizational hierarchy, Thomas Diefenbach and John A.A. Sillince (2011) revealed that the hierarchical structure of organizations is much more widespread worldwide than it is believed despite organizational changes. By applying the concepts of formal and informal hierarchy to five different types of organization, the authors concluded that there are no organizations free of hierarchy, since organizations consciously or unconsciously implement mechanisms and principles of hierarchy in an informal way [113]. *The hierarchy can be interpreted or shaped differently depending on the internal environment and relationships of all members in reaching the goals and objectives of an organization.* Due to fundamental functional differentiation of organizational structures, today top-down hierarchy has reshaped its mission to the new roles where senior professionals offer support, supervise, advise junior members of organizations (table 11) [114, 115].

Table 11 – Description of organization types in the framework of hierarchy

Types of organization by hierarchy	Description	Structure	Social relations	Examples
bureaucratic or orthodox organization	a type of organization governed by one authority	Top-down, orders delivered to bottom, and delivery of information to the up.	Unequal relations	
Professional organization	Public or private sector organizations where a group of people or professionals with the same common interest run joint activities. It is a purposely created and designed organizations by a specific group of individuals to achieve professional common goals	Hierarchical structure of professional knowledge. The most goal-oriented and successful type of hierarchical organization.	Security of social dominance over each other in a professional environment. Principle of seniority, principle of professional autonomy	Advocate offices, healthcare organizations, higher education institutions, and consulting or accounting firms
Representative democratic organization	Employees' direct engagement in decision-making processes, indirect participation in strategic decision-making processes	Horizontal structure, which embraces employee participation, autonomy of working groups, partnership	egalitarian and democracy principles	John Lewis, The Co-operative (Coop), credit unions and many agricultural and building societies
Hybrid or postmodern organization	Formal hierarchical management combined by temporary or permanent teams or autonomous self-managing projects	Decentralized activities over permanent or temporary projects	Depends on projects	
Network organization	A new type of organization with structured hierarchical management, where role of employees is defined by 'functional necessities'.	functionalistic and managerial principles	Fully decentralized, autonomous and self-directed units based on functions.	If organization management is responsible for more important issues as strategic decision-making, allocation of resources and etc. and controls over them, there are other subunits responsible for other operational and technical activities which are completely independent.
Note: developed by Author based on [113].				



The research thesis attempted to identify a type of hierarchical structure universities belong to, to figure out possibility of applying business-like models to develop the next mission of higher education institutions, backbone of which is internal management processes. Thomas Diefenbach, John A.A. Sillince revealed that today principles of top-down management assign slight different interpretation, while discussing the persistent existence of hierarchical structure in all types of organizations: managers are not commanders or rulers any more, instead they act as guides, motivators, informers and advisors. In doing so, they contribute to strengthening and deepening of trust and respect among all members, minimize inequalities and encourage initiatives and new ideas through functional differentiation. Since the principle of top-down does exist in bureaucratic, professional, democratic, hybrid and network organizations but with different modern approaches, it can be claimed that today universities possess some features of all types of organization at different functional levels to get done certain tasks in a certain way [113].

*However, as a group of academics and professionals gathered together to fulfill the needs of society and economy, universities could be considered to belong to the professional type of organization.* After the introduction of ‘New Public Management’ in 1980s, professional organizations became more managerialized and ‘business-like’ [116-123]. In the opposite manner, some studies revealed that even in some professional organizations like healthcare or higher education institutions, inequalities in functional distribution, decision-making processes and disproportionate opportunities were taken place [124]. As noted by Welch, today external pressure challenges complexity of universities mission, increases more demand on teaching, research and administrative responsibilities [125]. Furthermore, in light of pursuit to improved productivity, efficiency and accountability, the control and management over academic staff is increasing and leading to so-called ‘managed professionals’ as defined by Rhoades and Slaughter. [126, 127].

As for representative democratic organization, this type only touches the level on decision-making processes, co-operation and profit-sharing, whereas other levels of management follows hierarchical structure such as an appointment of managers (not election), assignment of tasks from top-down. However, democratic principles are over hierarchical ones, since the relationship between superiors and subordinates are based on the shared value and goal.

The postmoderners believed that to some extent after the emergence of ‘family-like’ or ‘team—oriented’ hybrid organizations, ways of employee engagement, commitment and motivation would change [128]. However, engagement of employers in temporary or even permanent projects is based on functional and hierarchical principles, where project members are assigned formal authority, responsibilities, and privileges according to their functions. As a result, hybrid-type of organizations lead to increased internal competition and pressure among members for the excellence and career provision, and produce informal hierarchy.

Finally, the study identifies network organizations as a hierarchy-free type of organization, which represents collective responsibility of all group members for task accomplishment, shared value and trust in communication [129], as well as the unit

where functional division is based not on regulations or rules, rather on negotiation and cooperation [130]. However, authors for their surprise found out that hierarchy-free type structure of organization takes place only at the initial stage of the project work; gradually shifting to informal hierarchical structure. Ahuja and Carley claimed that ‘network organizations are more vulnerable to the emergence of informal hierarchy than other organizations’ [131].

With the introduction of new managerial approaches in higher education governance, from early 1990s a new model of university governance, which dominated national universities - ‘competitive governance’ emerged. The basic ideology of the new model is autonomous behaviour of universities in meeting stakeholders’ needs, knowledge-marketplace, healthy system integration and diverse system. However, in line with the newly introduced reforms, there are considerable discussions about their impact on internal governance, behaviour and attitude of academic staff. Overall, the study of the current presented reforms’ impact on higher education institutions and how they match with and are absorbed by existing cultures, behaviour and practices of an organization [132].

According to de Boer and Goedegebuure and Clark, principles of New Public Management is the strengthening of institutional autonomy through decentralization of decision-making processes [133, 134]. However, Pollitt, Birchall, Putman and Maor revealed a paradox in this context claiming that HEIs should be autonomous and in parallel accountable to the government through quality assurance mechanisms like accreditation and national rankings [135, 136]. Admittedly, introduction of elements of private sector somehow will affect traditional pattern of the current management. In light of new public management Slaughter and Leslie and Reed claim that major internal actors of universities, academics will be the first ones accountable to the university management and the traditional mode of academic life will change considerably [137, 138]. In the same manner, Lynn Meek outlines the concerns over academic staff, who will be treated as employees and be less autonomous professionals [139]. Altbach addresses to the former opinion about negative consequences of new management to academic professionals in terms of increased bureaucratization, diminished professional autonomy and working conditions [140]. There is the same school of thoughts arguing about challenges of new public management in terms of academics reaction and resistance to changes [141, 142]. Following, Eckel and Kezar claim that despite some international research studies on consequences of national reforms there is a gap in relationships between internal actors of HEI and external actors [143]. The previous studies focused basically on structural approaches of organizations, as well as on ‘centralization versus decentralization, authority, hierarchy, bureaucracy, size, efficiency and rewards’ The research study discussing the consequences of governmental reforms within HEIs, the extent of hierarchical managerial changes was conducted in case of Austrian and German universities [144]. From our observation, we can name, as one of the most interesting practices of German universities is definition of university management as ‘the management of processes of knowledge production of which human capital is the most valuable asset. As well as university leadership aiming at organization and distribution of available resources in

a way, that optimizes intra university conditions for achieving excellence and keeping up competitiveness. Where academic standards are highly respected. Enabling the generation of knowledge, which is relevant to society, and maximizing the visibility and standing of a university vis-a-vis other (inter)national institutions have become general concerns' [145].

However, there are also opponents of the new managerial approach to be implemented in higher education. Studying the practices of Sweden, Norway and the United Kingdom, Kogan et al. claim that new managerialism did not bring any impact on behavior of academics [141].

The foreign practice demonstrates the security of academic profession enlightened with 'special privileges and responsibilities' and presence of academic freedom [140]. In light of new changes in higher education system, universities' responsibility for their activities, mainly for quality education and finance is emphasized, consequently the internal pressure for accountability and competition rises. In this regard, it is important for university administration to implement new managerial approaches not only at the institutional level, but at organizational level as well. Consequently, the role of management and university administration plays a crucial role in quality management. Prior to applying business management approaches in higher education institutions, we have identified applicability of private sector methods through studying the type of organization to which universities belong. The introduction of quality management practices just because of external pressures, governmental requirements or compliance with European standards are not efficient enough if there is nothing to do with internal organizational changes. To illustrate, the higher education institutions in Kazakhstan implement quality management system based on ISO standards. However, with the rise of globalization, the ISO standards promote a certain degree of commonality or isomorphism between universities, which do not promote a competitive advantage of universities. Thus, the research claims that the innovativeness of higher education institutions to respond to external pressures and changing environment in light of new reforms is development of quality management model based on internal governance of an organization. In recent decades, HEIs in Kazakhstan have been practicing significant changes in quality management policies and practices. In light of private sector techniques introduction at the institutional level through focusing more on external environment and performance outcome, it is important for the university administration to stress organizational structure of management and professional autonomy to ensure quality education. According to the economic theory, it is worth to note that competition is not the key goal of an organization; it is rather the means to achieve effectiveness and efficiency of organization performance and to enhance core missions of universities. Equally important, the transformation of Kazakhstani national universities to non-profit organizations will bring increased accountability and responsibility for quality. Coming together, financial, academic and managerial independence of universities will indeed reduce public expenditure through competition, market mechanisms and customer-orientation to ensure quality education. However, the extent of its successful adaptation and implementation in compliance

with national peculiarities and philosophy of the HE system depends on aspects of internal governance and management.

Today universities behave like business organizations. It can be demonstrated by market-orientation, less government interference, more autonomy, competition for funding [145]. Green argues that while being HEIs more marketized, the values of academics remain underestimated [146].

Henkel claims that today HEIs behavior has changed in pursuit to performance indicators, competition for funding and customer-oriented strategy [147]. However, Ritzer argued that application of business-like managerial approaches in higher education is acceptable, since all public sector organizations can not be differentiated from any other service organizations. He claimed that the concept of 'managerialism is universal and it can be applicable to all sectors of service organizations and respectively universities should meet customers' expectations in terms of reliability and predictability [148-150]. Following, Harvey and Scott also were advocates of applying the term 'customer' in regards to students, the former identified 'consumerism, the latter claimed that higher education is 'mass production industry'. While observing the studies, terms of business sector are popular in private HEIs. To illustrate, the private universities in the US (the University of Phoenix, 2006) and the single private one in the UK (The University of Buckingham) which focus on innovation, continuous improvement and service quality [151, 152].

However, the opponents of business terminology in higher education claim that higher education is not service industry aimed to satisfy customers [153]. Basic differences between higher education and other service industries have been identified by Harvey and Green [22]. Sharrock adds that students do not only consume like in other service sectors (for instance, McDonald), since the role of students has acquired rather an engagement character in educational process, rather than service consumer [154]. Harvey assumes not to treat students as customers, since universities do not just serve them, rather universities shape and transform students [154]. As one of opponents of 'consumerism', Furedi states that in the context of market industry, customers are always right, and this kind of approach is not applicable to higher education sector, since quality education is shaped through engagement of all internal and external stakeholders [156].

The economic literature defines HEIs as a multiproduct organization, which transfer human, financial and physical resources as input into measurable and quantity values to the labour market and the society through teaching and research outputs, where various activities are dependent on each other [157-159].

In light of new managerial approaches in higher education adapted from industry, quality has become the crucial issue of institutional quality management as a part of organization response to external pressures and competitiveness at the national and international markets. Admittedly, high-quality education depends on effective management of quality and appropriate organizational change in universities.

The growing importance of higher education institutions in shaping the backbone of society, policy, economy and culture, has led to a tremendous expansion of higher education and science globally. Following, Schofer and Meyer pointed out

that the expansion of universities worldwide demonstrates a large amount of isomorphism, the practice of the same responding and adaptation of the same strategies. Scholars assume that in case of mimetic isomorphism simply copying the best practices of outside field without considering the internal peculiarities of the organization can lead to some implementation challenges, which leads in its turn to less effective quality management [160]. In 1990s, the issue of quality was one of the central concerns in European countries with the changing nature of relationship between the state and higher education. The increased external pressures for accountability, managerialism and internal monitoring activities have led to reconsider the institutional approach to quality in education and quality management. The interesting viewpoint that Newton has highlighted as management of changes in quality assurance matters at the institutional level is consideration of not only key external stakeholders' role and their impact on quality, but also not undermining the values and expectations of main internal stakeholders within an institution on management of change in quality assurance issues [161].

Many universities have recognized the necessity of organizational change and new institutional forms in compliance with technological changes and growing instability at labour markets in the context of skills requirements. In this regard, it is worth to note the significance of innovation management to quality assurance of education. As well as the rise of a new trend, global governance, like standards of the Bologna process have emerged to fulfil the gaps left by the weakened role of national governments. Besides, national bodies and policymakers attempt to set their missions, strategies via isomorphism.

Classic scholars Meyer and Rowan claimed that if quality management is introduced because of external pressures and requirements, like governmental regulations, the outcome will be no efficient and there will be nothing to do with internal organizational changes. According to them, values, behaviour and structure of higher education institutions are shaped by an external environment [1]. Thus, understanding elements of institutionalism and isomorphism as well will direct HEIs to operate effectively and professionally and to determine appropriate organizational structures and their response to the external environment. Several theoretical and research frameworks lend themselves to analysing the impact of institutional theory on organizations' performance and competitiveness.

Taking into account the significant importance of studying institutional theory in higher education in pursuit to quality assurance of education, a number of research works have been dedicated to exploring the full potential of institutionalism in tertiary education. One of them is an analysis proposed by Cai, Yuzhuo, and Johannes Mehari about the application of organizational (sociological) institutionalism in higher education [162].

Theoretically, institutional theory is a powerful and well-known explanatory tool for examining organizational change and behavior. Admittedly, quality management is the effective management of all processes within an organization, it is prevention of problems rather than failure detection. In this regard, an innovative approach to quality

management plays an increasingly crucial role in running a sustainably quality performance committed to the expectations and needs of potential stakeholders.

Higher education system in Kazakhstan have practiced in some broader extent the coercive and mimetic isomorphism, after signing the Bologna declaration with the introduction of external quality assurance procedures. The majority of HEIs faced an increased complicated, competitive, ambiguous and changeable environment and had to follow the convergence tendencies in pursuit to preservation of competitive position at the labour market and demonstration of quality performance however by undermining the internal governance procedures. Today after the joining the Bologna process, the issue of quality and quality management is still on the agenda of governmental and institutional discussions. The reason is HEIs demonstrated a failure in their account of governance and organizational change. Therefore, the study of organizational change in universities from perspectives of institutional isomorphism is crucial for development of effective long-term quality management, since it encompasses and considers internal environment of institutions.

From the outcome of the present research investigation, it is possible to conclude that there are four core missions of universities. To our knowledge, this is the first study to deal with '*internal governance*' organization in higher education as the fourth mission of higher education institutions.

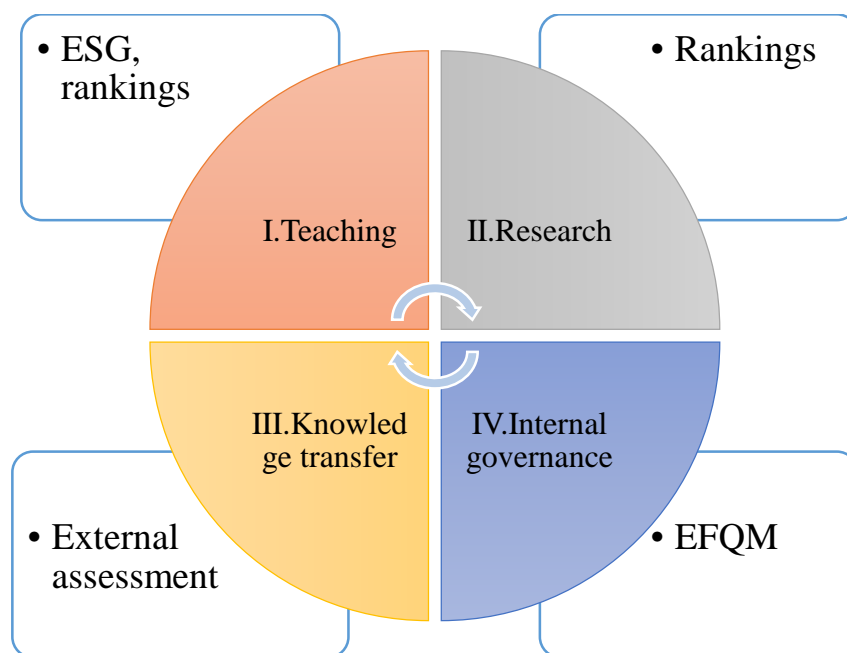


Figure 4 - Core missions of universities

Note: developed by Author based on own research analysis

Admittedly, the diversity of universities in their mission, character and profile as well as a way of interaction with the external environment and organization of internal governance is important. There are several views about dependency of organizations on external pressures, but they point out that the way, how they respond to external forces can be determined by organizations itself. Selznick, Clark and Sporn

claimed that it is utmost important for organizations to develop their own strategy and their 'environmental niche' to successfully compete for 'customers, students or market shares' and to improve their financial potential [134, 163, 164] . In this perspective, Stensaker and Norgård pointed out innovation as the way for survival [165].

*Development of internal governance mechanism just because of legal obligations (in the framework of autonomy) and common standards (in the framework of external quality assurance, mainly accreditation) which is a popular practice in most HEIs, indeed will not lead to an effective quality management. Since each HEIs is a specific type of an organization with certain internal shared values and norms, development of internal management should not stem from coercive or mimetic types of isomorphism, rather it should emerge from normative isomorphism, which will consider the role of internal members of organization, professionals to enhance effectiveness of the whole structure to deliver quality educational services.*

*To summarize this section, the fourth pillar of university mission has been introduced in light of new reforms introduced in higher education system. Results of the research observation on the recent trends and changes introduced at the institutional level show that the study of the institutional theory and organization of internal governance in HEIs is crucial for the whole quality management process. It should be noted that professional university leadership is one of the approaches of internal governance to be able to manage the changing process successfully, as well as enhanced competition and various types of internal incentives are supposed to steer the university in the desired direction.*

## **1.2 Theoretical foundation of the EFQM model as an innovative quality management tool in higher education**

The history of New Public management dates to the late 1970s, when Public sector organizations of the Western countries faced financial crisis, bureaucracy, inflexible administrative procedures and the losing of public trust [166]. The core meaning of the term 'NPM' is the introduction of business practices and techniques into public organizations to improve efficiency, effectiveness and performance of organizations and their application in higher education through agencies, external assessment practices and budgetary constraints, university's accountability and increasing level of competition among universities [167, 168].

Following, the new managerial mechanisms and reforms have been introduced to improve efficiency and to enhance performance of public sector organizations and to improve services provided by government, to become customer-oriented with strong focus on competition and measurement of performance. There are plenty of research studies dedicated to the discussion of this new trend in the global literature. The book 'New Public Management and the Reform of Education: European lessons for policy and practice' critically overviews the new approach through study of debates, projects and examines implementation of NPM in 10 countries, focuses on NPM as a fundamental trigger of reforms in education and offers NPM as a policy strategy to introduce NPM in the national level. According to Hood, adaptation of this managerial approach in a particular public sector will certainly lead to performance improvement [169].

The reform of higher education and governance in Kazakhstan after joining the Bologna process, assessment and evaluation (accreditation) has become a significant method of quality assurance and university management. As well as, our observation demonstrates the adaptation of public management reform in higher education (New Public Management) to decrease the public expenditure and bureaucracy through granting autonomy to HEIs. Pollitt and Bouckaert describe New Public Management as a 'transnational doctrine aimed to enhance flexibility and transparency, decentralize decision-making, increase managerial power and reinforce customer influence' [170].

The increasing demand for quality education, the growing accountability of HEIs to the society and the decreasing government funding have lead HEIs to reconsider their policy and to implement effective quality management procedures. The decrease of the state interference and bureaucratic procedures, an increase of university autonomy have lead university management to be more accountable for quality and for intra-university decision-making processes.

The core understanding of the new concept is changing the traditional model of university management into business-like, where decision-making processes are taken through a top-down structure [171, 172]. There are some arguments among researchers about bureaucratic influence of new management approach, in which only managers will lead and hold power. However, empirical researches of Thomas Diefenbach and John A.A. Sillince have outlined the existence of hierarchical structure in every type of organization. In this regard, the issue of, how managers come up to a new model of management and how they act in a new environment, is considerably important [113].



Worldwide researchers have proposed two basic ideas of NPM in public sectors. First, Hood claims that a main idea of this approach should be interpreted as a basic idea of adapting business practices, concepts and techniques to provide efficiency and effectiveness of management [173]. The second stands for the ways and forms of how the general idea of this concept is implemented and passed successfully in a particular sector taking different shapes [170].

Most countries worldwide have experienced implementation of NPM in a range of policy sectors and education sector as a part of public administration with large amount of budgets and personnel as well [174]. With the introduction of new managerial approach, Olssen, et al. has proposed a differentiating summary of the traditional and managerial models of management in higher education based on the following characteristics (table 12).

Table 12 – Models of management in higher education

	Traditional	Managerial model
Relationship between university administration and academic staff	collegial relationships and democratic voting between leaders and an academic community to reach a common agreement.	A competitive working atmosphere between managers and employers to enhance outputs and reach financial profits. The content of academic work depends on the demands of market.
Note – developed by Author based on [175].		

There is a group of scholars who have defined main features of NPM in higher education. Market based reforms are one of the principles of NPM, which minimize financial burden for the government decreasing the interference of the government in activities of HE sector and increasing competitiveness of HEIs in the market (marketisation of HEIs). As well as budgetary reform is a principle of NPM, which is based on allocation of funding by the government in a competitive way and creation of favourable conditions for attraction of private funding as well. The third one is autonomy, accountability and performance, which stands for autonomy of HEIs and their level of accountability to the government. The final pillar of NPM is management, mainly internal governance structure of universities. Table 13 - New Public Management areas in Higher Education.

Table 13 – New Public Management areas in Higher Education

	Market-based	Budget	Autonomy	New Management style and techniques
Marginson (2009)	Creation of competitive environment, provision of commercial activity	Student – fee growth	Output modelling	Reform of corporatization

Continuation of table 13

Henard and Mitterle (2006)	Competition between private and public institutions	Financial benefits	Incentives	Leadership principles
Bleiklie and Michelsen (2013)	-	Budgetary constrains	Formalization of autonomy, Increased autonomy	Hierarchization (Leadership and management)
Ferlie et al. (2008)	Competition for students and funding, stimulus of private sector engagement	Introduction of real fees of education and research for students	Creation of evaluation and assessment systems	Encouragement of strong executive and managerial roles, reduction of local governance influence
Note – developed by Author based on [176]				

The research carried out by Broucker, B., Kurt De Wit, Leisyte. L. briefly discusses the core elements of NPM implemented in seven countries, which are represented as latecomers and early comers of NPM [176]. In addition, authors have classified the studied countries according to the classification of Bleiklie and Michelsen by administrative traditions:

- The Anglo-American tradition stands for England, New Zealand and the United States
- The Germanic tradition - the Netherlands, Flanders
- The Napoleonic tradition - Portugal
- Scandinavian tradition – Finland.
- Additionally Eastern-Europe countries have been represented which are characterized as a combination of Germanic, Napoleonic and government-ruled former Socialist/Soviet traditions - Hungary, Latvia and Lithuania [168].

Table 14 – Basic descriptions of New Public Management

Country	Market	Budget	Autonomy	Management (Internal government structure)
Anglo-American traditions				
England	Internal competition; emergence of degree-granting private institutions	Budget cuts, increase in tuition fees, competition for research funds	More government interference; quality assessment and institutional audit policy	Corporate management, vertical structure of decision-making, weakening of collegial power
New Zealand	Competition for government funding allocation	Government as a main funder, 'investment plan' approach, fee-maxima policy	Performance based funding system via external quality assurance	Independent council (community, business, staff, local governmental and student body)

Continuation of Table 14

	and programme determination		mechanisms, Public information to external stakeholders, autonomy to invest in priority areas	representatives), HEI acting as representative of the wider community
US	Strong market Competition, increase of tuition fee	Performance funding; decrease in state funding, additional funding sources	Low state interference	Diversity among states; decrease in number of trustees
Germanic traditions				
Flanders	Government controlled, strict regulations for private providers to enter the market	Output funding, state as a main funder	Increased autonomy	Strong collegial Governance with members of external and internal stakeholders. No obligation for long-term strategy, institutional audit as a part of quality assurance
Netherlands	Market-type Behavior, Strategic actors responsible for quality education	Government funding based on performance indicators of HEIs	A supervisory board of external stakeholders responsible for external and internal assessment of teaching and research. The relationship between HEIs and state is agreement-based	Centralization of decision-making, increased executive leadership, declining role for collegial bodies
Napoleonic tradition				
Portugal	Internal Competition for students and funding; Involvement of private sector	Competition for research funds, public-private cooperation and different allocation mechanism depending on quality indicators and performance	Autonomy for HEIs but state interference in quality assurance processes and external stakeholder engagement in decision-making processes	Government-appointed board of trustees, rectos elected by university General Council, (30% are external individuals), management boards responsible for administrative, financial and human resource management

Continuation of Table 14

Scandinavian				
Finland	Increased financial freedom and autonomy after 2008-2009 reform	The main funding by the government, and possibilities of HEIs to attract other findings	Increased autonomy; management by results	A board (40% external stakeholders), rector and university collegiate body.
former Socialist/Soviet traditions				
Latvia	Creation of private HEIs with private sector.	State, local funding and agreement between HEI and ministry responsible for it.	Increased autonomy, independent to establish diversified funding base.	Constitution (academic staff, students and employers representatives) is a main body, council consisting of external and internal parties responsible for answering to society needs.
Lithuania	Involvement of governmental actors to lead HEIs. Outcome-oriented governmental approach.	Output focused funding, allocation based on research outputs, increase in tuition fee	Autonomy to govern, but governance arrangement of quality assurance procedures	The important role of external stakeholders and students in institutional management. University board responsible for decision-making and appointment of rector.
Hungary	Government-controlled (2005 HE Act), Competition for the best students, since they define number of state-funded grants in HEI.	Introduction of students loans; inadequate funding	Limited autonomy, government control over organization and management	A main decision-making body is the Senate, in 2005 the Higher Education Act enabled to decide over internal governmental structure
Note – developed by Author based on [176]				

The study identified the following types of pattern:

1 trend. The extent of NPM implementation in Anglo-American traditions seems high. The reason for this is decades of high autonomy, high competition and low government control.

2 trend. The moderate level of NPM characteristics in the Germanic, Napoleonic and Scandinavian traditions. While there is more market-oriented, more competition

and increase in autonomy (Netherlands), there are some features of high state interference, low marketization (Flanders).

3 trend. The Eastern European countries represent the mixed trend of NPM principles. Despite a lack of transparency, inadequate funding and increasing level of university dependency / vulnerability (Hungary), there is a sign of adopting NPM principles through increased competition, autonomy and accountability, as well as introduction of changes into management via attraction of internal and external stakeholders in decision-making processes (Latvia and Lithuania).

It can be summarized, that due to the philosophy and history of HE system, the type of governance differs. For instance, if for England and the US, market philosophy is important, then for Flanders and Finland the state plays a considerable role. As for the Eastern European traditions, HE system strives for changes and modernizations to fit the needs of economy and society, the philosophy left by the Soviet history.

With the rise of interest to the concept of quality management in higher education, there are wider theoretical and empirical studies in the global literature. The common trends in the available reviews are analysis and identification of common factors of QM implemented in different countries. The reviews suggest the following common factors of QM in the context of their application in business sector: leadership, information and analysis, people management, planning, process management, supplier management, stakeholder focus and design [177, 178, 179]. Namely, the existing literature reviews on QM approaches and methods in HE mainly deal with identification of key QM dimensions [180], analysis of the main QM initiatives [181], review of current QM practices in HEIs [182] and evaluation of how principles of QM have been addressed [183]. Nevertheless, the recent systematic review paper, which analyses the key approaches to quality and topics of QM in higher education institutions, explores the divergences between approaches to quality management in industry and higher education [184].

There is a wide scope of studies about the positive impact of quality management principles and practices on quality improvement and performance of universities [185-189]. The common aspects of studies focus on the feasibility and effectiveness of quality management for the quality improvement of HEIs in areas of planning, human resources, resource management, educational and administrative process management. As well as, there is a body of studies, which discusses practices of quality approaches in higher education discussed by Allen, Cullotta and Gonzales, Kosaku, Landesberg and Martin [190-194]. The works of Detert and Jenni, Evans, Farrar, Goldberg and Cole, Osseo-Asare and Longbottom, can be considered as examples of excellence models applied to the educational field [195-199].

In light of changes in the orientation of universities, with rising external pressures and competition, necessity for HEIs to reorient their management approaches emerged. Huq describes the problem of organizations to implement business quality management approaches is due to a poor focus on process, lack of shared information and not enough preparation of employees [200]. Admittedly, the EFQM excellence model is widely popular approach to achieve excellence, to improve quality performance and to cope with the growing external challenges in the market. The

EFQM model is easily understandable for managers in terms of quality management definition as has been stated by Coleman and Douglas, and description as well as in terms of continuous improvement of an organization according to Sandbrook [201, 202]. Samuelsson and Nilsson described the EFQM excellence model as the best-known practices of self-assessment, which has positive impact on the organization performance [203]. Among the regional scholars who attempted to study the EFQM model in higher education as an innovative mechanism of quality management procedures, is a solely single paper discussing the development of a design technology for higher education quality assurance based on the EFQM model [204]. Authors compare the features of the EFQM versus to the ISO 9001:2001 model, which is the most popular quality management model applied in Kazakhstani higher education institutions, in the context of higher education reforms granting to HEIs academic, financial, and administrative autonomy according to State Programme for Development of Education in the Republic of Kazakhstan in 2011-2020.

As for the global literature, the first qualitative empirical studies carried out by Davies, identified the role of leadership in quality improvement of higher education, analysing the EFQM model as a possible tool for improvement of leadership in higher education [205]. As for the first quantitative empirical research, the study provided by Calvo-Mora et al. has analysed reliability and validity of the EFQM model in higher education and concluded it as a 'reference framework' for the implementation, evaluation and improvement of quality in higher education [206].

There are several reasons why the EFQM excellence model has been chosen as a quality management tool for higher education.

- To begin with, the EFQM model is a holistic assessment tool, which can be applied to any type of an organization regardless of the size and sector, and helps to understand needs of stakeholders. Mainly it is 'the cause and effect relationship' between enablers and results.
- Secondly, the model has been applied in higher education and successfully tested [207].
- Third, the effectiveness of using the EFQM model has been justified by the comparative study conducted to compare an excellence model and ISO 9001 standards. The study has concluded the EFQM model to be effective, since it touches issues of internal efficiency and decision-making process improvement. In addition, its positive impact on leadership, motivation and internal communication of organization members has been emphasized as well. In addition, it is worth to note the effect of internal members' engagement, improved attitude to work, improved teamwork and shared leadership, and improved communication as a result of the EFQM application [208].
- Furthermore, the peculiarity of the EFQM excellence model is that it encompasses interests and needs of all internal and external stakeholders. According to the model, excellence is achieved through involvement of all stakeholders. Thus, it can be concluded that it leads not only to continuous improvement, rather it creates more favourable working environment within an organization.

- Since the excellence model is a non-prescriptive model, it does not require strict compliance with standards or rules. The goal of this model is to let organizations assess their own strength and weaknesses and develop a set of actions for effective management of organization.
- Last, it is assumed that the distinction of the excellence model from the current quality management system based on ISO standards is the EFQM model provides more competing approaches, rather than complementary one.

The philosophy of the EFQM model is it is important to have a good management system. By analysing the differences in the implementation of the EFQM model in private and public organizations, Tari concluded that HEIs should implement business techniques in compliance with the context of universities [209]. There is a group of scholars, who recommended application of the EFQM excellence model in higher education as a quality management tool and found it as an appropriate business approach applicable in higher education context [205, 210]. In the same manner, there are many studies related to feasibility of quality management in academic institutions and its effectiveness for improvement of planning, staff, administration and educational /administrative processes [186]. Rozélia Laurett and Luis Mendes provided a broad overview of the main issues on the EFQM model application in higher education context through systematic literature review [211]. As a part of the literature review of the research thesis on the EFQM excellence model in higher education as an improvement tool, we refer to the systematic literature review provided by Rozélia Laurett and Luis Mendes (2019).

The studies on the application of the EFQM excellence model in higher education point out the importance and usefulness of this quality management tool to identify the key strengths and improvement opportunities of an organization through focusing on key continuous improvement issues [212]. Besides, the EFQM model allows higher education managers to manage and to align priority fields of HEIs, as well as to improve and develop improvement plans. Equally important, there is a school of thoughts assuming that, success and effective performance of an organization lies not in the external environment, rather in effective management of an organization itself [213].

In addition, the findings of the qualitative empirical studies show that the EFQM model enables to create more customer-oriented culture in HEIs and to improve quality of educational services, which in its turn can bring outstanding outcomes such as students' satisfaction [214]. Moreover, studies highlight that strong commitment of top management and self-assessment processes facilitate learning about quality management and promote a quality culture within an institution [215]. Besides, Tari highlighted that the EFQM model is the most effective and efficient self-assessment tool to identify weaknesses and strengths of higher education institution, which requires appropriate knowledge about quality-related issues and knowledge sharing within an organization to implement of EFQM-based quality management tool [209]. Tari et al. found out that EFQM-based quality management tool promotes more engagement of internal members in processes of analysis and changes, as well as helps to refocus staff's attention on quality [216]. Tóvölgyi defined the EFQM model as an

innovative approach to improve competitiveness of HEIs and to gain ‘customers’ approval and satisfaction through sustained and objective decision-based processes and indicators [217]. As reported by Tóvölgyi, the findings of her study about successful application of the EFQM model in higher education, justify the increased level of students’ satisfaction with quality of education and services, as well as organization of the educational process. The conceptual research of Zink and Schmidt pointed out that the criteria of the EFQM model are applicable in the context of higher education [218]. There is another conceptual study, which reports that it is necessary to adapt the EFQM model in the context of country environment as well. To illustrate, national language, culture, traditions and organizations of HEIs system play a significant role to apply effectively the model in universities [219, 220]. The authors believe that being the model pragmatic, practical, as well as focused on potential of future achievements of HEIs through leading indicators, without undermining the past achievements, it can be an effective quality management tool in higher education [219].

*The peculiarity of application of the excellence model in higher education is that the institution itself develops its own methods of implementation.* As an evidence to illustrate, we studied implementary instruments highlighted by the National Council for Voluntary Organisations (NCVO), which reported potential advantages of the model provided by NEF Consulting. Moreover, we presented our own additional assessment:

- The Excellence model systematically deals with issues of quality in an organization and assess the impact through ‘Results’ criteria
- It is a useful tool for planning and setting strategy thanks to assessment of organization’s activities and achievements.
- The principles of the excellence model are applicable to any type of organization, regardless if it is public or private.
- There is no external assessment of the model implementation. The model is primarily for internal management of organization to assess the strength and weaknesses. Thus, no external pressure, no inflated data, only internal self-assessment of clear picture of organization performance [221].
- It inspires development of quality culture through engagement of internal stakeholders
- *The effectiveness of the model is thanks to Results criteria, it closes the cycle of quality management in an organization through giving attention to results and identifying the weaknesses to eliminate in the future. (Author’s assessment)*

Ultimately, the purpose of the EFQM excellence model is not solely continuous improvement; rather than it is the ability to manage ‘transformation’ and ‘disruption’, and to govern ‘change’ effectively in organizations. Russel Longmur, CEO from the EFQM claims that it is not an assessment tool; it is rather a management tool. According to him, the EFQM excellence model enables organizations to figure out the key shortcomings and possible solutions to improve its performance. The peculiarity of the excellence model is that it does not follow *‘one fit size’*; it pursues changes and transformations for long-term sustainable future performance. Admittedly, the EFQM



model is a globally recognized management tool, which helps organizations to manage change and to improve performance.

Summarizing scholars' discussions on the applicability of the EFQM excellence model in higher education, we assume that the best way of implementation of quality improvement tool based on the EFQM model is not through *adaptation process rather through adoption* [222, 223]. As reported in the literature review, the most positive outcome of the EFQM model in higher education is identification of strengths and areas for improvement, as well as implementation of action plans and improvement projects. Implementation of the EFQM-based quality management systems in higher education sector enables HEIs to acquire systematic overview of processes, to recognize how different processes interact with each other in order to reach desired outcomes. Moreover, the new quality management tool allows all members of the institution to understand better their roles within an organization and to make better decisions [211]. Another key point about the EFQM model is its emphasis on development of quality culture, enhancement of people's awareness about importance of quality, promotion of common sense of purpose for everyone and knowledge-sharing throughout the organization, which leads to efficient university management and better performance of academic staff [217, 224, 225]. Researchers also refer to the point, that early engagement of staff in key decision-making processes, improvement activities bring more benefits to the development of favourable working environment, and teamwork-based communication within an organization [217, 226, 227].

Furthermore, we analysed each criterion of the EFQM based on theoretical foundation of the EFQM model to align with higher education. According to the excellence model, the right leadership, the right people, the right strategy, partners and right processes enable the university to meet expectations of internal/external stakeholders and society needs and finally achieve an excellence [213].

To discuss the structure of the model, there are key nine criteria in the EFQM model, which comprises 'enablers' and 'results'. The 'Enabler' criteria deals with how organization behaves itself and how it manages its internal staff, resources, how it plans strategy and how reviews and monitors organization processes through focusing on leadership, people, policy and strategy, partnership and resources, processes. As for 'Results', this criterion refers to what organization achieves based on 'Enablers'. Results cover satisfaction level of internal and external stakeholders, impact on the society and key performance outcomes of an organization. In the EFQM model, enablers and agents define the approach and the way organization do to achieve excellence. It is important to organize and manage activities related to leadership, human and technical resource management, as well as process management together, since quality management of organization is not the separate and isolated part of organization management (figure 5).

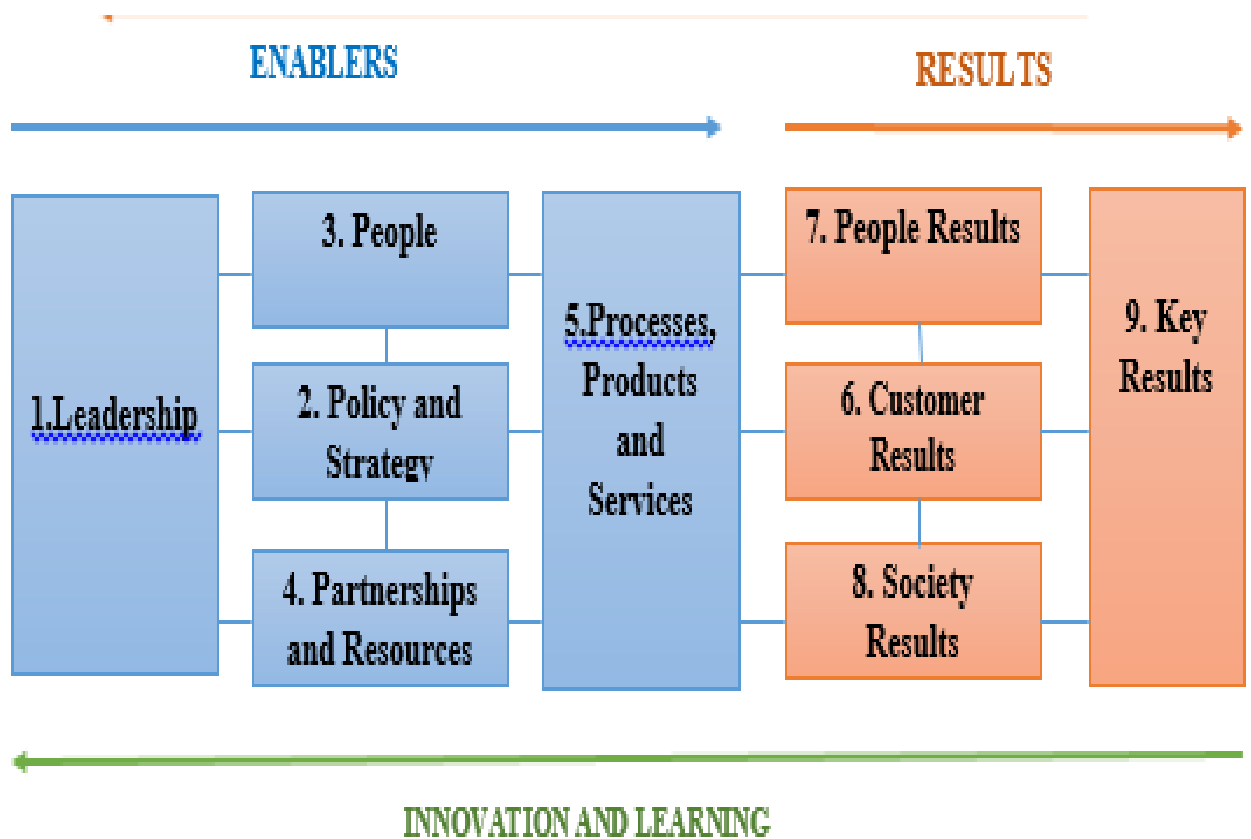


Figure 5 - The conceptual model of the EFQM  
 Note - EFQM Excellence model 2013

**Leadership.** This criterion mainly deals with the top-level management and how they support and contribute to the realization of university mission, vision and values through development of quality culture. Already available studies provide the following aspects of leadership, which are crucial for effectiveness and competitiveness of an organization:

- Fulfillment of the mission and values by leaders
- Personal involvement of leaders to provide development, implementation and continuous improvement of the organizations' management system
- Involvement of leaders with the external stakeholders and society
- Reinforcement of quality culture among internal members of the university.
- Motivation, support and recognition of people
- Stimulation of change.

According to Grant competitive advantage of an organization depends not on the availability of resources, but on the ability of leaders to manage and coordinate them [286]. In our case, based on assumptions of Lado and Wilson, who discussed the managerial abilities of leaders, as enabler for an organization development, it is necessary for university leaders to promote and communicate a strategic vision of the university and empower all internal members to its implementation. As well as the managerial capacity to support, mutual relationship between an organization and its environment also plays the crucial role in development of organization performance [228].

**Policy and strategy** in alignment with current and future stakeholders' expectations. In this criterion, scholars discussed the positive impact of policy and strategy, which encompass the strength and weaknesses of an organization, keep balance between external and internal stakeholders' needs, and enable adaptability to change [229]. Development of policy and strategy based on information from performance measurement, research, learning as well as regular review and update of strategy in compliance with external and internal needs of an organization is crucial. Finally, policy and strategy of the university should be considered as an action plan to achieve long-term objectives in a consistent and integrated way. Equally important, strategy is based on the present and future needs and expectations of external and internal stakeholders as well as the basis of the strategy is research, learning and innovation [213].

**People.** This criterion mainly deals with the role of internal stakeholders, their knowledge, skills and professional competencies in organization improvement. The management of human resources is an organization capacity, which can ensure competitive advantage [230, 231, 232]. There is a broad set of studies, which concluded that since human factor is the main asset of an organization, it needs training, development and support to sustain a competitive advantage of an organization. Effective internal governance of human resources, as well as their professional competencies and knowledge can create quality service and value to external stakeholders [233, 234, 235]. The engagement of internal stakeholders in quality improvement and decision-making processes is a key aspect of organizational management as well. Key characteristics of 'people' enabler:

- Planning, management, improvement of human resources
- Identification, development and preservation of the knowledge and skills of organization members
- Involvement and empowerment by the members of the organization
- Communication between the organization and its members
- Rewards, recognition and attention to the members of the organization

**Partnership and Resources.** This criterion covers technical (as infrastructure, facilities), financial resources and management of partnerships with external partners (development of relationships, improvement of interaction processes). Management of external partnerships and development of cooperation with domestic and foreign HEIs enable universities to promote internationalization, to share the best practices, to enhance professional development of staff. Management of economic and financial resources effectively enables university administration to allocate resources accordingly, efficiently to attract more staff that are professional, and to update technical resources. As for knowledge and information management, it is important to focus on these criteria, since right information is crucial to communicate with external stakeholders and partners. As for knowledge management, it implies management of creation, development and dissemination processes and exploitation of knowledge to generate more capabilities of the organization [236]. Important features are:

- Management of external partnerships
- Management of economic and financial resources

- Management of technical resources (infrastructure, facilities and materials)
- Management of technology
- Management of knowledge and information

**Processes.** It implies organizational routines, collective capabilities of an organization, which cover individual skills and resources. This criterion identifies design, management and improvement of organizational processes to promote policy and strategy of an organization ensuring the continuous improvement.

- Systematic management and design of processes is an important management tool to support development of an organization.
- Introduction of improvements into the processes is based on continuous improvement via innovation. The ability of an organization to respond to external changes quickly and accordingly, as well as to develop new forms of competitive advantage through development and rearrangement of core capabilities of an organization.
- Design and development of products and services
- Production, distribution and delivery of products and services
- Management and improvement of relationships with customers

**Customer Results.** It encompasses the perception level and indicators used by external stakeholders to assess quality of perceived products or services.

**People Results.** This criterion deals with internal members of an organization. It measures the level of satisfaction, motivation and involvement of the employees [213]. The authors highlighted human factor as a key asset of organizations, thus professional development, training, protection and appointment of the best professionals is important as well. Generally speaking, this criterion concerns internal organization aspects as corporate culture, internal communication, teamwork, internal environment and increased staff motivation [237, 238].

**Society Results.** This criterion assesses the positive and negative impact of an organization on society. It is believed that development of management system based on management of external stakeholders will benefit to long-term survival and success of an organization [239]. The positive relationship and cooperation with potential stakeholders is to strengthen confidence, trust and promote cooperative efforts, since each organization has a social responsibility.

**Key performance Results.** This criterion deals with gathering of objective data related to both non-economic (i.e. size, business growth) and economic and financial aspects to identify business success of an organization. The results are obtained by enterprises via business strategy (criterion 2). In a second analysis, the operative indicators used by enterprises to understand organizational processes (criterion 5) are identified. This criterion analyses the achievements of the enterprise in all its main areas and criteria of the excellence model [213].

To summarize, a new instrument of quality management has been studied and analysed based on foreign literature. The systematic literature review has demonstrated that the majority of literature on the EFQM model deals with health and higher education [99].

The research thesis highlights the importance of introduction of excellence model EFQM to improve performance and competitiveness of universities in Kazakhstan. The originality of the research is that it emphasizes the applicability of the adopted excellence model as an effective quality management tool adopted from industry solely to higher education. Since the model is a holistic approach and does not follow the concept of 'one-size-fit', we claim that the adopted version of the excellence model can be an useful tool for university leaders and quality managers to design their quality management processes based on key criteria of the EFQM model [240].

## 2. ANALYSIS OF KAZAKHSTANI UNIVERSITY GOVERNANCE BASED ON FOREIGN PRACTICE

### 2.1 Analysis of university governance and quality management practices in Kazakhstani HEIs

The second chapter of the dissertation describes Kazakhstan's current system of higher education, focusing mainly on its governance and challenges of quality management. In recent decades, the issues of quality management has received attention not only in industry sector, but also in academic world. After gaining the independence from the Soviet Union, the government of Kazakhstan has allocated all resources to quality assurance of higher education, acknowledging its role in the prosperity of the nation and improvement of economy. As an evidence, several reforms have been introduced - the structure of higher education system transferred from being completely government-controlled and publicly funded to a complex system with partially government controlled structure, performance-based funding and granting autonomous to HEIs to be competitive in a national and international market [241].

Table 15 - Governance structure development of universities in Kazakhstan

Type of governance	Responsible body	Description	Period
Complete government interference	The committee of Education and Science	Attestation, control to determine compliance with the law and regulations	Once every five years
Move to ↓			
Professional / collegial authority	The National Center for Accreditation, Introduction of National Register for accreditation bodies.	Quality assurance, recommendation, compliance with ESG 2015	Decision made by HEI itself
Move to			
Market-oriented	Transformation of national universities to non-profit organizations	Academic, financial and managerial autonomy	Decided by university
Note – developed by Author based on own research			

There were few attempts of local scholars discussing the issue of institutional autonomy and academic freedom of universities in Kazakhstan. A group of authors addressed some shortcomings of the implementation of the Bologna process in the framework of New Public Management despite significant achievements in the field of higher education. Their primary focus was less level of universities autonomy, centralized way of administration and incompliance with the needs of the labour market. Although the Bologna Declaration does not speak about the governance of

universities, the mechanism to develop effective internal governance in align to external and internal stakeholders' expectations is a key solution to the whole system of quality management in higher education. Like many other European countries, Kazakhstani government is moving away from 'state-controlled model' to 'state-supervising model', granting the increased autonomy to national HEIs with decreased public funding. Responsibility and accountability for quality and core decision are transferred to university administration. In this regard, accountability can be defined as "the obligation to report to others, to explain, to justify, to answer questions about how resources have been used, and to what effect" [242]. Kivistö assumes that it is important to differentiate legal / financial and academic accountability. According to him, the former dimension deals mainly with what HEIs actually have done in compliance with legislation and whether the funds allocated by the government have been used accordingly, and the latter addresses the core missions of HEIs, mainly teaching, learning and research [159]. The issue of university governance improvement was also discussed by international experts in the report carried out by OECD "Reviews of National Policies for Education. Higher Education in Kazakhstan 2017" [243]. According to the report, 'a strong quality assurance system' focused on quality of 'inputs' (student, academic staff qualifications) and 'processes', financial autonomy of universities, governance transparency should be one of key areas for improvement.

The main issues and challenges of higher education system since its independence can find reflections in the study of S.Kerimkulova [241]. So far, significant innovative changes have been made in the system of higher education in Kazakhstan since 2010. To illustrate, it is worth to note a transit from state attestation to independent accreditation of higher education institutions, harmony of quality assessment procedures with international and European standards, cooperation with international agencies and joining European quality assurance networks. The emergence of national quality assurance agencies and its membership in international quality assurance networks such as ENQA and EQAR has demonstrated the recognition of quality assurance procedures and processes at the European level and contributed to the recognition of the entire Kazakhstani higher education. This made it possible to increase the recognition of the country's universities and the level of confidence of the international community in Kazakhstan's education. In the following figure, key events around quality assurance practices in Kazakhstani higher education have been illustrated:

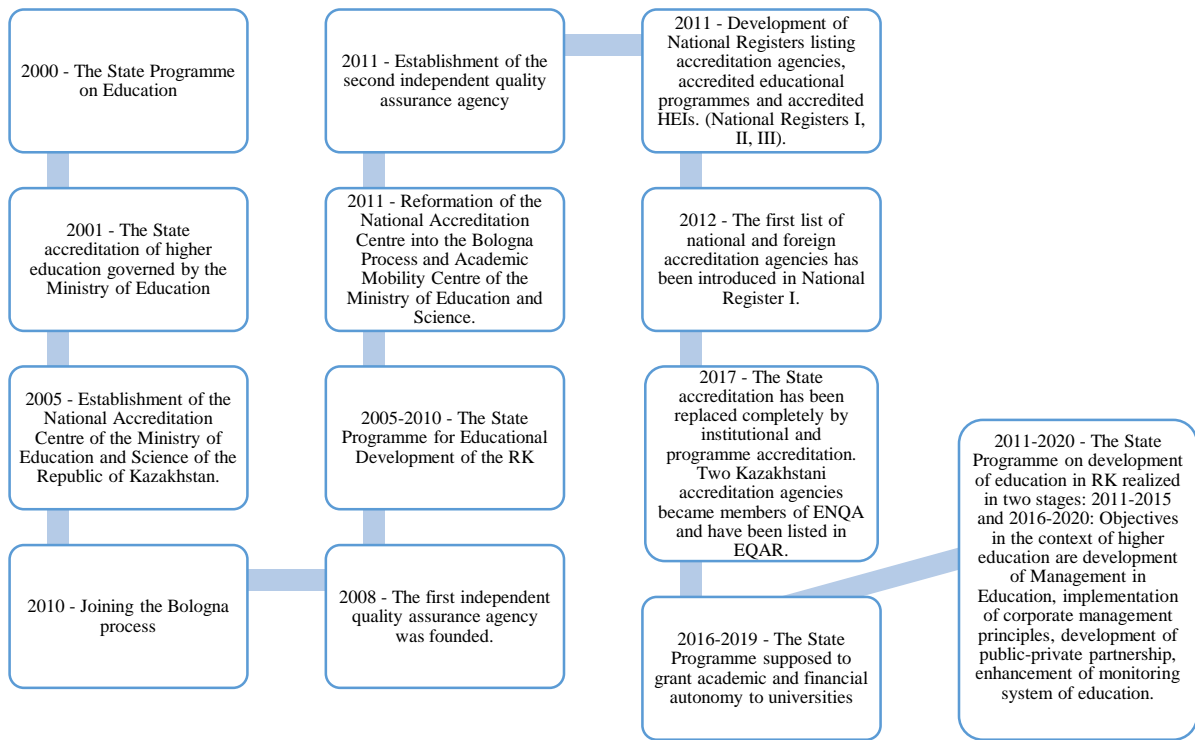


Figure 6 – Key events in quality assurance practices of higher education system in Kazakhstan

Note - Author’s own research and reproduction

Higher education is a key backbone of national economy development in terms of integration with science and industry. Admittedly, education has been recognized as one of the most important priorities of Strategic development of Kazakhstan. Currently there are total 129 higher education institutions in Kazakhstan.

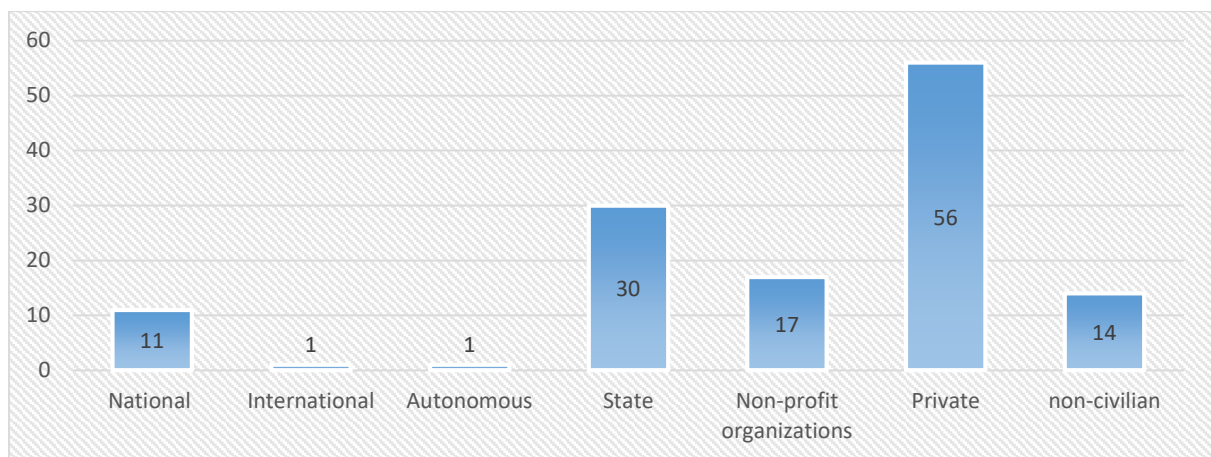


Figure 7 - Types of higher education institutions in Kazakhstan – 2019/2020

National HEIs	International	Autonomous HEIs	State HEIs	Joint-stock organizations	Private HEIs	Non-civilian HEIs	Total
<b>11</b>	<b>1</b>	<b>1</b>	<b>30</b>	<b>17</b>	<b>55</b>	<b>14</b>	<b>129</b>

Note – compiled by Author based on [244].



It is worth to note, that Ministry of Education and Science strives to transform state and national universities to non-commercial organizations in order to enhance academic, financial and managerial autonomy of universities and to promote competitive potential of HEIs. However, the issue is that the recent reforms and amendments made in Law “On Education” RK sometimes do not reach their targets due to following reasons:

- Hierarchical system of governance in institutions, which have produced a type of leaders, which strive to comply with requirements and standards of the MOE RK, where no place for joint decision-making with members of an organization, rector being the most important figure in governance leading to poor academic culture.
- Poor engagement of stakeholders in key strategic processes.
- Too much accountability and reporting about university performance which rises administrative burden to academics leaving no place for teaching and research.
- Existence of supervisory boards just formally, without much influence on strategy development and university governance or in other cases reluctance of supervisory boards to take responsibility [245].

Actually, the system of university governance in Kazakhstan takes its root from the Soviet system of management based on centralization, where main control body is the Ministry of Education and Science of the Republic of Kazakhstan. However, the MES RK do not own information about regional problems. Thus, the style of centralized management is limited only to submission of reports by universities to the Ministry of Education and Science of the Republic of Kazakhstan, which are used only to identify violations, impose punishment and make personnel decisions.

The thorough analysis of the SPED revealed that one of the key objectives of the programme has been identified as improvement of management in universities, introduction of Board of Trustees to have channel with public participation. In the same manner, achievement of high level of quality in higher education that meets needs of the labor market, objectives of the industrial and innovative development of the country has been highlighted.

The report conducted by international experts (OECD) stated that apart from implementation of accountability mechanisms, ‘good governance practices at the institutional level’ is an important factor for development of new university governance arrangements in Kazakhstani HEIs with more institutional autonomy. The development of self-governance practices requires new approaches and mechanisms in management. In this regard, the research study conducted by international experts (OECD) on “National Policies for Higher Education in Kazakhstan 2017” highlighted the importance of strengthening of university governance to enable more decentralized approach in management, as well as to increase financial, academic and organizational autonomy of higher education institutions in Kazakhstan. The review concluded that ‘even if there is no single key to effective implementation, certain broad principles should be promoted to ensure progress and results’.

The statements of representatives of the ministry from different sectors highlight the importance of gradual transformation of universities governance to autonomy systematically. First, training of university leaders, adaption of university management to a new style with more autonomy and creation of culture within the university to promote quality.

In this regard, the research thesis argues that in order to achieve excellence in management and competitiveness at the market, the well-known, holistic excellence model the EFQM can be introduced as a quality management tool, which brings continuous improvement and excellent performance of universities.

Implementation of managerial approaches assume that universities respond to enhanced external competition like other private sector organizations. However, from the perspective of economic theory, competition is not the main goal itself of an organization; it is the means of achieving effectiveness and efficiency in organization performance of universities [246]. Thus, we summarize the practices of the European universities and define main aspects of organization efficiency enhancement as following: availability of larger amount of resources for investments in the organization; professional leaders of autonomous universities, who are supposed to invest in a development of university performance. Admittedly, managerial and financial autonomy should serve as a means of not striving to maximize income and profits, rather to strive for enhancement of core values and missions of universities.

Furthermore, it is worth to note that the main global trends in the field of quality management in higher education is development of common criteria and standards to ensure quality of education in European countries within the framework of the Bologna process; creation, development and harmonization of national systems of accreditation in European countries; development and implementation of the quality management system of universities based on models such as international standards ENQA, standards of the ISO 9000 series, the European Foundation for Quality Management (EFQM) excellence model and other national models of quality management in education. Domestic scholars claim that, the key point of these approaches focuses on the transformation of external quality control of the educational process and its results on the basis of national certification and accreditation systems towards the internal self-assessment of an educational institution based on certain models. According to domestic scholar, Minazheva, this in turn, ensures the transfer of responsibility for quality and quality assessment to the educational institution itself [35]. Following the discussion about diversity of quality management approaches, we have summarized key quality management approaches in higher education.

*The ESG 2015.* Today, knowledge and innovation driven society and the demands of modern economy requires from higher education institutions quality improvements of education with international standards. An important condition for sustainable development of Kazakhstan in the context of globalization is to ensure the quality of higher education. The following factors, mainly dynamic state of the external environment, the high level of competitiveness in the field of higher education and academic freedom of HEIs have triggered the need for the implementation of multi-level quality assurance systems. The competitiveness of the country is provided by the

competitive higher education system that meets the needs of society, economy and labour market. The Ministers of Education of the Bologna participants have repeatedly stated the need to improve the quality assurance of higher education. The importance of ensuring the quality of higher education is stated in several European documents: 1999 Bologna Declaration, in the Prague Communiqué of 2001, in the Berlin Communiqué of 2003, in the Berlin Communiqué 2005, the Paris communiqué, 2018.

A precondition for changing the national system for assessing the quality of higher education in Kazakhstan was the signing of the Bologna Declaration and accession to the European Higher Education Area. It is well-known that according to the amendments made to the Law “On Education” from November 13, 2015 № 398-V, since January state attestation of higher education institutions (exceptions for military, special educational institutions) have been replaced by international accreditation. Accordingly, the State Programme for the Development of Education and Science for 2016-2019 covers the replacement of the state attestation with accreditation [247].

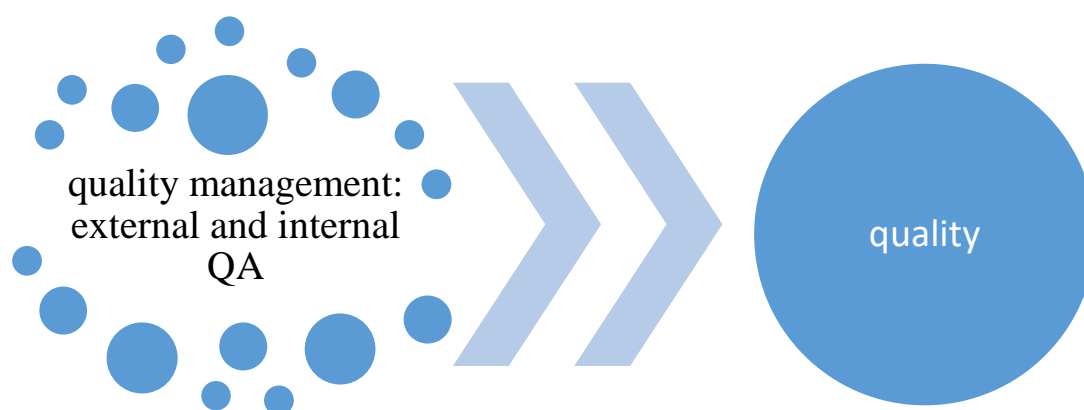
*ISO 9001 standards.* ISO 9001 standard is an internationally well-known and commonly used quality management model. The standards set common requirements to develop quality management system. The practical application of ISO 9001 standards imply setting the standard for the quality system, rather than on achievements of the university. As reported by Sallis, 1993, the purpose of the ISO standards is ‘to assure that there are systems in place to deliver those standards once they have been decided’ [247]. There are several arguments about the drawbacks of the ISO standards in higher education. According to T.Csizmadia, the main barriers of quality management based on ISO standards are lack of leadership commitment, quality management ‘on paper’, no actual changes, focus on the certificate, the burden of central documentation procedures and poor quality of management [248]. Since the standard leads to more bureaucratic and document-oriented system, it could stimulate efforts to become ‘good enough, not better’, and less effort on continuous improvement. Despite for existing drawbacks of ISO standards, it is the quality management system, which provides constant control over academic and non-academic processes takes corrective and preventive activities and carries internal audit.

*IPO model.* Input-Process-Output model or IPO is a holistic model applicable in higher education. In some European countries (Lithuania, Netherlands) the model is applied to design national education monitoring systems or systems of performance indicators [249]. As reported by Csizmadia, ‘input’ refers to external factors (expectations and requirements of government and accreditation agencies), demands of external stakeholders (including academic staff), and resources (human, tangible and intangible resources). ‘Process’ is explained as management, organization, academic and support processes. ‘Output’ is defined by employers’ evaluation of graduates, employment rate of graduates, as well ranking and reputation of university [248]. However, the IPO model is not an independent framework applicable in quality management system development.

*The EFQM excellence model.* As for the excellence model - the EFQM, it is a quality management model based on self-assessment of weak and strong points of

university performance. The practical application of the model is that it links different areas of organizational processes. According to Wilger, the model addresses issues of quality assurance, strategic planning and finance [251]. There is a school of thoughts, considering the ISO standard series to be a good basis for a later implementation of the EFQM Excellence model [252]. The EFQM excellence model is a widely used model in Europe. It is believed to be a holistic and integrative approach, which integrates strategic, managerial and operational processes of an organization [210]. The peculiarity of the model is that it encompasses all-important areas of organizations, defines organization's strengths and potential opportunities for improvement. In the literature, the model is defined as a 'complex tool of self-assessment and approach to excellence' [253]. The practicality of the EFQM model is that it is easy for managers to comprehend according to Coleman and Douglas and Sandbrook, who claim that it constitutes clear structure of management and continuous improvement [201, 202] As reported by Samuelsson and Nilsson, the EFQM model is the best quality management tool for self-assessment of an organization [203].

As the first step of internal management organization, the majority of HEIs created departments within an organization responsible for quality management procedures. *Nevertheless, the research question of our thesis concerns to what extent these procedures and approaches for quality management proceeded well and provided visible outcomes.* In this context, we declare that the issue of quality management should be on the current agenda of the most HEIs in Kazakhstan. The common practice that universities exercise today is accountability for quality education through various approaches, like accreditation, self-assessments, rankings, benchmarking. Undoubtedly, in light of new changes in higher education system, with the introduction of managerial, financial and academic autonomy, the level of accountability about performance and quality will rise in pursuit to attract more students, business-partners, funding sources, as well as to preserve the competitiveness. Again, external pressure coming from outside and inside deepens, which will definitely have unfavourable impact on performance of internal members of universities. In addition, the current existing practice of quality management procedures requires additional improvements and amendments. In this regard, implementation and adaption of new managerial approaches should not undermine the core value of universities. Based on our theoretical analysis and field-study, we can claim that the most well-known practice of quality assurance existing in higher education institutions of Kazakhstan is as illustrated in figure 8:



*lack of efficient organization of internal governance for effective quality management*

accountability for quality and performance

Figure 8 – The current quality assurance practices in higher education  
 Note - developed by Author based on own research

Today indeed, there are some units at universities responsible for quality assurance processes. However, in practice the effectiveness of their activities and impact on overall university’s quality improvement and performance is still the issue of discussion.

Table 16 - Quality departments in national universities of Kazakhstan. Main existing departments dealing with quality management issues

I sample	II sample	III sample
Department for Quality Analysis and Development Strategy	Department for Strategy development	Centre for accreditation and quality of degree programmes
<ul style="list-style-type: none"> <li>- Office for analysis and assessment of the quality of education;</li> <li>- Accreditation and rating office;</li> <li>- Office for Strategy development and monitoring.</li> </ul>	<ul style="list-style-type: none"> <li>- Office for Strategy Planning and Monitoring</li> <li>- Accreditation and Ranking Office</li> <li>- Office for quality assessment of education</li> </ul>	<ul style="list-style-type: none"> <li>- Accreditation and Licensing Office</li> <li>- Office for quality control of educational programmes</li> </ul>
Note – developed by Author based on own research		

The field study analysis of the selected universities revealed that the existing quality management departments mainly deal with issues of accreditation, ranking, strategy development, as well as quality assessment and control procedures. It is commonly known that one of key methods of quality management is self-evaluation of an organization, which promotes assessment of university activities from different

angles enabling to identify strong points of university performance and areas for improvement. Thus, we claim that there is still the issue about main functions and responsibilities of quality management departments in universities.

Table 17 - The matrix on quality management departments in regards to their functions

	Accreditation and ranking	Quality assessment and control of degree programmes	Strategy development, monitoring	Quality audit (ISO certification)	Quality assurance	Self-evaluation analysis of the university	Identification of strengths and areas for improvement of university performance on regular basis	Promotion of quality culture	Experimentation of good practices
I.	+	+	+	+	+	-	-	-	-
II	+	+	+	+	+	-	-	-	-
II I	+	-	-	+	+	-	-	-	-
Note – developed by Author based on own research									

Despite existing best practices and programmes in the system of higher education for improvement of quality in education, there are still drawbacks.

The key challenges of quality management development in HEIs in Kazakhstan:

- Lack of academic personal engagement in university governance
- Absence of quality culture within an organization
- Lack of marketing research studies on identification of real demands of labour market
- Poor communication with industry. Low level of interaction of education, science and industry to promote industrial-innovative potential of the country
- Absence of feedback system about quality of graduates
- Low level of management in HEIs. Low level of leaders commitment to quality management
- High level of administrative burden at universities
- Absence of interconnection between departments
- Discomfort and concerns about expansion of autonomy among university leaders due to long-term existing institutional accountability
- Poor internal governance development
- Low level of employer satisfaction with quality of graduates
- Quality of graduates and degree programmes do not meet expectations of labour market and needs of economy.



Figure 9 – Key challenges of quality management in Kazakhstani HEIs  
 Note – developed by Author based on own research

*Given these points, our research thesis mainly deals with issues of internal organization of universities to provide quality education and services. Thus, we do not concentrate much on reforms or programmes of the Ministry of Education and Science related to teaching, learning, and research. The peculiarity of our dissertation is that we focus on one of aspects of so-called ‘university mission’, which leads to effective quality management: ‘internal governance’*

*Notwithstanding, the challenge of all introduced new reforms and practices has been due to not sufficient analysis of the internal status quo of organizations. Still, there are issues of compliance with needs of labour market, professional competencies of graduates, professionalism of academic staff, less satisfaction with offered opportunities for professional growth and training, higher level of bureaucracy in pursuit to accountability to the government and other major problems on the agenda of meetings, forums, and discussions at the institutional and governmental levels.*

## 2.2 The conceptual framework for university governance based on foreign practice

The term ‘governance’ in higher education is interpreted and applied differently. Despite the interpretation of ‘governance’ depending on the different contexts, the common understanding is that it is the structure and process for decision-makings at the institutional and system level [254].

Several researchers have expressed divergence between concepts of governance, leadership, management and administration. According to them, ‘*Governance* is the structure of relationships that bring about organizational coherence, authorize policies, plans and decisions, and account for their probity, responsiveness and cost-effectiveness’. ‘*Leadership* is seeing opportunities and setting strategic directions, and investing in and drawing on people’s capabilities to develop organizational purposes and values’. ‘*Management* is achieving intended outcomes through the allocation of responsibilities and resources, and monitoring their efficiency and effectiveness’. ‘*Administration* is the implementation of authorized procedures and application of systems to achieve agreed results’ [255].

Since our research thesis mainly deals with the issues of internal governance, we have provided one more conceptualizations to the notion ‘governance’. The group of scholars consider that governance is determination of utmost important aspects of organization and identification of institutional goals, strategy, purposes, mission and values. Marginson and Considine pointed out that governance is about ‘inputs (physical, human and financial), processes (ways of operating and organising), outputs and outcomes (various aspects of institutional performance and contributions to wider social and economic goals) [256]. As for ‘*internal governance*’, Keller defined it as *the involvement of internal members to internal organization processes through policy development and implementation, management of organization at the various institutional levels and roles, as well as engagement of both internal and external stakeholders in decision-making processes*. The term ‘internal governance’ is mostly identified as multi-layered concept that covers ‘internal management structures, decision-making arrangements, leadership roles’ and the relationships within an organization [257].

The analytical conceptualization of HE governance provided in the literature, defined three types of higher education governance in light of marketization trends: state-centered model, academic self-rule and marketized model [258, 259, 260]. The empirical studies by Dobbins addressed the issue of the governmental change towards market-oriented model in Western and Central-Eastern European countries [261]. Three main dimensions based on diverse characteristics of the governance have been identified as following: the way HE are arranged, financial governance and personnel autonomy. Michael Dobbins and Christoph Knill classified the described types of university governance according to financial, personnel autonomy and HE arrangements based on multi-level comparative analysis of higher education governance development in the three large Western European countries - Germany, France and Italy, which were the impetus of the Bologna process. The scholars’ reason



for the selection of these particular countries lies on their diverse institutionalized features of HE governance, where Germany having a strong ‘academic oligarchy’ and self-regulation, France with strong central state intervention and Italian governance being the mixture of both the German and the French systems [28]. Thus, three of them are considered to be representatives of three different types of university governance. Please refer to table 18.

Table 18 - Classification of ideal type of university governance

	<i>State-centered</i>	<i>Academic self-rule</i>	<i>Marketized</i>
<i>HE arrangements – deals with balance of power between state, university management and academics, level of managerial autonomy, decision-making power.</i>	It is peculiar to the higher education system, where the state directly controls and governs academic processes like admission requirements, nomination of academic staff, as well as development of degree programmes and examination forms. No way to university autonomy and self-management, rather more state and ministry bureaucracy. The process-oriented quality control over quality management of universities. This is a type of governance in which, institutions are to comply with state regulations and rules. The ministry evaluates and controls	The second type of governance, where there is more power of academic governance, rather than university management, is identified by some skeptical scholars as ‘academic oligarchy’. The characteristics of this model is the state-university partnership, based on principles of corporatism and collectivism. The <i>self-governance</i> of academics is realized through academic senates at the institutional level, and in some point limited by the state via planning and financial regulations. Self-evaluation by university, academic peers	The characteristics of ‘marketized’ university governance are competition for human and financial resources at the regional and global markets, autonomy of university management, university’s internal processes (design of structures and programmes), less state intervention, close interaction with the business sector. Evaluation by external bodies via accreditation. The role of state is promotion of competition and quality improvements
<i>Financial governance – allocation of funds</i>	State is responsible for funding. Less freedom for HEIs to use funds independently.	Financially dependent on the state. Allocation of funds depending on purposes based on collective agreements. Third-party funds attracted by ‘high-ranking academics’, which increases academics’ control over funds	Competition for state, non-state and other funding sources. Allocation of funds based on university performance. Flexibility of university management

Continuation of table 18

<p><i>Personnel autonomy – differentiation of academic and administrative management. It implies authority over personnel and involvement of academics in strategic decision-making processes.</i></p>	<p>State control over personnel selection, academics appointment. Limited academic staff participation in administrative management</p>	<p>The strong role of academics in personnel recruitment. High academic staff participation in administrative management</p>	<p>The decisions of personnel recruitment, selection of academic staff and high-level staff is made by the university management. Moderate academic staff participation in administrative management</p>
<p>Note – developed by Author based on [260].</p>			

Considering importance of defining the type of governance, where universities belong to, we carried out research among top managers of national universities in Kazakhstan using the parameters developed by Michael Dobbins and Christoph Knill, to validate and to define main peculiarities of university governance in Kazakhstani HEIs. The data were collected from a structured questionnaire completed by vice-rectors of the selected national universities. The questions were arranged by the following groups: “Higher education arrangements”, “Financial governance’ and “Personnel autonomy”.

As can be seen from table 19, we can observe the mixtural patterns of higher education governance. Beginning from general higher education arrangements, there is almost no absolute state governance and interference in university governance. There is the feeling of university autonomy and self-management in regards to decision-making and setting of strategic goals of the university, as well as issues of admission rules approval, development of curriculum, degree programmes and examinations. The state does not directly coordinate internal procedures and affairs of the university. After signing the Bologna Declaration, the role of state in university governance has been gradually surrendering. With the introduction of quality assurance mechanisms as accreditation, independent accreditation agencies have become responsible for external assessment and evaluation of university performance, which in turn can provide more transparency, openness and less administrative control by the state. As well as internal assessment procedures organized by university administration enable university to reveal and determine its main strong and weak points. We can claim that the results of the research demonstrate that the level of state intervention in higher education governance is pretty becoming low. Unlike their counterpart, the role of academic staff in university management is low, namely weak academic self-regulation. As for ‘marketized’ type of governance, autonomy of university management to develop its own admission rules and study programmes demonstrate the strive to respond to demands of regional and global labour markets, as well as permanent competition for potential human capital. Thus, we can claim that, universities are gradually shifting to market-oriented type of governance.

As for financial governance, it can be observed, that still state intervention takes place in terms of funding. The level of financial freedom of universities is pretty low, which demonstrates dependence on state funding. However, with the introduction of reforms in higher education system to transfer national universities to independent joint stock organizations, the mode of university funding is gradually changing. The granted academic, managerial and financial freedom to national universities opened up new insights and opportunities for university administration to attract more funding and financial resources from external sources, third-party research funds and potential stakeholders. As can be seen from table 19, allocation of fund is primarily based on prior defined, established, planned goals and specific purposes defined by the university. We can claim that patterns of market-oriented financial performance are notable, since the flexible behavior of universities to procure more external funding is enhancing.

In regards to personnel autonomy, it can be seen that the degree of involvement of academic staff in strategic decision-making processes is low. Decisions over recruitment and rewarding of academic staff remain in the realm of the university administration. Thus, these descriptions reflect patterns and trends of market-oriented governance.

Table 19 - Higher education governance type in Kazakhstan – central indicators

Higher education arrangements			
	State-centered model	Academic self-governance	Market-oriented model
<i>Responsible body for setting strategic goals and decision-making</i>	State (ministry)	-	University administration
<i>Responsible body for approval of admission rules</i>	State (ministry)	-	University administration
<i>Dominant management approach</i>	-	collegial	Strategic management
<i>Responsible body for control and evaluation of quality</i>	-	-	Independent accreditation agencies, internal assessment by university administration
<i>The subject of control and evaluation</i>	Academic processes	Quality of research outputs, quality of publications	Quality of study programmes
<i>When does evaluation / accreditation take place</i>	-	-	Ex post*, university administration decision

Continuation of table 19

<i>State control instruments</i>	-	Financial-legal framework conditions	quality control of education, funding of research projects
<b>Financial Governance</b>			
<i>The main funding base</i>	State grants	University budget	tuition fees, research grants
<i>Types of state funding</i>	State grants, independent phased funding (state allocates budget, as in the previous year)	-	-
<i>State funding approach</i>	Low funding, low financial freedom of universities	-	-
<i>The mode of fund allocation?</i>	Target-oriented – allocation based on prior defined, established, planned goals.	Funds are allocated for goals and tasks agreed upon by the ministry and the university.	Performance/outcome oriented allocation – funds are allocated for specific purposes defined by the university) External financing.
<i>Responsible body for strategic investments</i>	-	-	University administration
<b>Personnel autonomy</b>			
<i>Dominant body for recruitment of academic staff</i>	-	-	University administration
<i>Professional background of rectors / university presidents</i>	-	Academic	-
<i>Level of academic staff participation in administrative management</i>	Low	-	-
*outcome-based, actual results			
Note - developed by Author based on [260] and own research analysis			

Our empirical findings reveal a mixed pattern of models. We can summarize that the above-described indicators demonstrate no balance between types of governance, but the positive tendency towards market-oriented approach can be visible. While general HE governance and financial governance is characterized by a common trend toward the market-oriented model, we observe a less consistent picture of personnel autonomy (table 20).

Table 20 – General patterns of higher education governance in Kazakhstani national universities

	State – centered model	Academic self-governance	Market-oriented model
HE governance	-	-	+
Financial Governance	+	-	-
Personnel autonomy	+	+	+
Note – developed by Author based on own research analysis			

Even though there is favourable movement in university governance, nonetheless it is important to further study and improve internal governance of universities to create more market-oriented and competitive environment in higher education, to ensure high quality products.

There is an assumption that quality management does not exist completely without formal rules, regulations, responsibilities, assessments, monitoring and accreditation. As a result, the increasing formal monitoring and evaluation procedures trigger ‘academic bureaucratisation’, which means a ‘growth of the part of the organisation that does not directly carry out the work but which regulates, supervises and supports those who do’ [262, 263]. This phenomenon is called as a ‘silent managerial revolution’ of academics [261], because of obligations to do administrative duties instead of focusing on their core missions and tasks, such as research and teaching [264].

In this regard, Egeberg, Gornitzka, Trondal have categorized the structures of organization, which shape the governance:

1. Distribution of the tasks and responsibilities vertically among organizational levels
2. Division of tasks among organizational departments horizontally according to the principle of specialization
3. Clarity of role expectations adjusted to organizational positions [265].

In the same manner, M.Seyfried and F.Reith proposed several paradoxes and identified key problems in regards to quality management implementation in higher education. The authors bring some information about the consequences of formalized and evaluation procedures leading to bureaucracy processes of quality management in pursuit of quality education. According to the authors, it undermines the core mission of universities through the creation of administrative burdens within an organization. That means quality management is rather conducted to comply with external demands and to be accountable to external bodies, leaving no attention to the internal governance efficiency of an organization. Authors claimed that in case of standardized procedures, which oblige internal members of an organization to comply with the certain rules and regulations can hinder the development of unique ideas; degree programmes and can affect the core mission of universities. Another challenge of the current existing quality management is the mechanism of benchmarking. Admittedly, it is acceptable by

leaders of universities, which have high-performance indicators in terms of research, cooperation, students, academic mobility etc. to remain at the market. However, the way, how this performance and effectiveness achieved is not demonstrated. One more crucial issue of the modern quality management approaches is no coordination among internal actors, which can lead to ineffective quality management. Finally, the authors pointed out the increased hierarchy within an institution. Since responsible actors for quality management have some obligations to control, monitor, assess and ask for accountability, the way, how the quality management is organized is a fundamental issue to consider (table 21). As authors have stated, identification of problems of organizing quality management in higher education is crucial for improving quality management as a whole [266].

Table 21 – Paradox in the implementation of quality management in higher education institutions

Quality management impact		
Formal governance	Informal governance	Outcome*
Formalization and bureaucratization Documentation requirements, assessment reports standardization	Academic freedom, academic bureaucratization  Professionalism	<i>Less effective organization governance, administrative burden, low quality education</i>
Benchmarking	Internal competition within an organization, quality management becomes a manipulation system, rather than a support system	<i>+reputation, demonstration of high performance to attract funding- -more focus on good indicators and right numbers, undermining the actual quality of education</i>
No coordination and no communication	Engagement of all internal members	<i>“Positive coordination” – all actors involvement in decision-making “Negative coordination” – only selected actors are involved</i>
Hierarchy	Internal relationship between administration and academic staff	<i>The way how quality management is organized is a crucial topic to consider.</i>
Note – developed by Author based on [266] *identified by Author		

Summarizing table 21, we assume that organizational change and change of internal governance in universities is essential for effective quality management.

In the literature, internal governance is defined differently due to national and institutional traditions and history, as well as reform trends [267-270]. New reforms in university governance of national universities mean an autonomous leadership in academic, organizational and financial issues. However, managerial autonomy is not supposed to be more personal autonomy for academic staff, rather it is quality of

relationship between internal actors as well as favourable working conditions provided for internal members.

As noted above, internal governance mainly deals with objectives, organization management, and distribution of responsibilities and authority within an organization, as well as concern with issues of how reporting lines are set up and how internal quality assurance is organized. Lazzeretti and Tavoletti defined university governance as ‘all processes and institutions that rule divisions and manage power inside universities and national university systems [where] ... power means making decisions that are binding for others’ [271]. Another scholar describes an internal governance as “internal management structures, decision-making arrangements and leadership roles and the relationship between these internal functions and the role of governing bodies” [272].

Equally important, internal governance of higher education institutions in some extent depend on internal organizational behaviour of the institution, where it is important to consider histories, traditions and values and their approach toward governance. In light of new managerial approaches, the impact of managerial, financial and academic autonomy of HEIs are significant for universities to develop their own structures and processes to provide quality education. Since depending on internal peculiarities of universities in terms of history, traditions and values, the approaches for internal governance development can differ from one organization to another. There is no unique and the best practice or approach of the internal governance applicable to all higher education institutions. Certainly, this leads HEIs to face challenges in developing effective internal governance approaches. However, the project launched in 2016 by the European Social fund together with the World Bank professional experts proposed possibilities for highlighting keystones, innovative approaches, and general framework for effective internal governance applicable for all HEIs after studying the similar development trends and good practices of European universities for designing internal governance structures and processes (table 22).

Table 22 - General requirements for ‘good’ internal governance arrangements

<i>A. Strategic development and governance</i>	
A.1. Having in place clear and precise institutional strategies aligned with institutional strengths/weaknesses and their environment	Development of clear mission, strategic objectives and planning which can effectively guide activities of organization units and members
A.2. Having in place action plans that structure and support the strategy implementation process	
A.3. Basing strategies on in-depth analyses and involving internal stakeholders in the strategy development process	Development of strategies in alignment with institution’s characteristics to fit interest of internal environment. Engagement of internal and external stakeholders in the strategy development process
A.4. Developing measures for the implementation of strategies	Day-to-day measures to implement strategies. Monitoring goal achievement. Effective managerial approaches to figure out incompliances with actual performance. Assessment of objectives to comply with changing environment.
A.5. Monitoring the strategy implementation process and adapting instruments/objectives if necessary	

Continuation of table 22

A.6. Securing and monitoring fitness for purpose of governance structures	Governance structures should be flexible and adaptive in the light of changing environment and open for innovative solutions. It is important for leadership to guide, engage and motivate organization to strategy development.
A.7. Accompanying institutional developments with change management	
<i>B. Autonomy and accountability</i>	
B.1. Securing academic freedom	Securing academic freedom of teaching and research is a core part of effective internal governance.
B.2. Maintaining academic integrity	Management of academic freedom misuse by academics.
B.3. Anchoring accountability measures and quality assurance in governance structures	Accountability to the government and society through quality assurance mechanisms.
B.4. Establishing adequate monitoring procedures and management information systems	In the light of autonomy, the level of accountability rises. Thus, an effective management of data collection about university performance and quality of activities for external quality assurance mechanisms is crucial.
<i>C. Good governance 1: Cooperation and participation</i>	
C.1. Balancing responsibility of collegial bodies and personal responsibility and maintaining a cooperative approach	Development of effective approaches to balance involvement of academics as key experts in internal governance and leaders to promote shared vision, appropriate strategies at the institutional level. Leaders' ability to develop and promote clear vision and its implementation shapes institution's efficiency and its strategic development.
C.2. Involving external stakeholders in institutional governance and securing their proper conduct	An appropriate involvement of the diversity of stakeholders (external - representatives of society and the economy and employers, internal - academics, administrators, and students) in internal governance increases an institution's ability to account for all stakeholders' interests and its responsiveness to external demands. All stakeholders should act in the interest of HEI.
C.3. Developing appropriate ways of involving internal stakeholders on different institutional levels	
<i>D. Good governance 2: Differentiation of functions and distribution of powers</i>	
D.1. Separating strategic and management tasks framed by checks and balances	The separate tasks for strategic development and its implementation should be assigned between organization units and actors effectively. Appropriate monitoring and evaluations are important to provide transparency of processes.
D.2. Equipping central leadership with sufficient and adequate competences	The implementation of strategies and objectives that steer the organization should be carried out by central management that has enough power to effectively promote strategy implementation.
D.3. Securing efficiency and transparency of governance structures	Internal governance should not put pressure on administrative and academic staff of institutions. Their engagement in internal governance and related duties such as reporting procedures should not consume too much time and or too many resources. And the design of internal governance structures and



D.4. Establishing an adequate level of devolution	<p>processes must be clear to all stakeholders involved. The rights and responsibilities of different bodies and actors should be well defined and clear. A culture of transparency also implies that decision-making processes at all stages follow an adequate level of openness.</p> <p>Achievement of strategic objectives depend definitely on leaders' competencies, but also on actors who are competent to develop adequate solutions. Thus, the distribution of decision-making power should start from the lower institutional level without intervening overall strategic development of institution.</p>
D.5. Ensuring staff development and developing human resource strategies	Internal governance approaches should offer support for administrative and academic leadership at all levels through leadership and management promotion programmes or via human resource development or professional trainings.
Note – developed by Author based on [273].	

Subsequently, development of effective internal governance in the university requires adaption of its own internal government structures, which fit internal environment, and behaviour of the organization, which can face and respond to challenges and changes of the external environment. Since national universities in Kazakhstan have been granted managerial autonomy, there is a favourable condition for university managers to design their own sufficiently adaptive, flexible internal governance structures, which can generate innovative solutions to respond to the demands of external stakeholders.

A general shift toward autonomy, output-oriented steering approaches by governments will confront Kazakhstani higher education institutions with challenge of adapting internal governance arrangements accordingly for internal coordination and strategic development. In this context, it is important to design internal governance arrangements in an efficient way without putting much pressure and burden on internal members of institution.

In last years, being granted autonomy, universities in Kazakhstan became more responsible and accountable to the government, leading to an increase of internal pressure within organization. In this case, we believe that it is important not to neglect the primary mission of universities: teaching, research and academic freedom of staff. In addition, in light of new business-like managerial approach, it is important to preserve the holly nature of academics, it is crucial not to treat faculty staff as employees of organization. It is necessary to create an effective organizational structure, where the role of faculty staff is not underestimated.

Considering the significance of the PhD research question, we constructed basic research samples based on concrete and specific principles, discussed further.

1. *National universities*. First, the focus is on national universities in

Kazakhstan, subject to transformation from national to ‘non-profit joint-stock organizations’, which embrace features of New Public Management. National higher education institutions in Kazakhstan

- L.N.Gumilyov Eurasian National University
- T. Zhurgenev Kazakh National Academy of Arts
- Kazakh National Agrarian university
- S.D.Asfendiyarov Kazakh National Medical University
- Abai Kazakh National Pedagogical University
- Satbayev University
- Al-Farabi Kazakh National University
- Kazakh National University of Arts
- Kurmangazy Kazakh National Conservatory
- Kazakh National Academy of Choreography
- Kazakh National Women’s Training Teacher University

In total 27 higher education institutions are subject to reorganization [274].

2. *World Rankings.* Currently, highly ranked universities in global rankings are considered to be symbols of prestige, high reputation and drivers of the knowledge economy at the national level. “Rankings” being labeled as one of the tools of external quality assurance of higher education, since its first appearance in 2003. Despite for existing discussions and debates whether national or global ranking in fact reflect the highest quality performance or excellence of universities in a fair manner, we focused on ‘ranking’ as a tool to select the samples. Actually, some scholars believe that global rankings do not contribute so much on quality assurance of learning, as it is based mostly on already available data; consequently, there is no space in regards to usefulness of rankings in assessing quality. Director of the Department for Institutional Development of the European University Association - Tia Loukkola pointed out that there are still continuous arguments and objections regarding effectiveness of global rankings in quality measurement of higher education. [275, 276]. If to look back at historical background of global rankings, the first ranking body appeared in 2003. A group of researchers from Chinese university (Shanghai Jiaotong University) set up the Academic Ranking of World Universities (ARWU) to compare Chinese universities with top world universities. Later, there was a rise of other scholars’ interest to produce another tool of quality measurement. As a result, Times Higher Education World University Rankings (THE) and QS World University Rankings (QS) appeared in 2010, both of them had been originally split from “Times Higher Education–QS World University Rankings” (THEQS) appeared in 2004, as well as U-Multirank, funded by the European Union since 2009. In total, there are ten global rankings [277]. The latest added ranking is US News and World Report’s Best Global Universities (BGU). Basically, common reasons why national and global rankings have become so popular among HEIs are globalization, acknowledgement of significance of higher education for economy and welfare of the country, marketing of higher education, attraction of talented students and academics in the global competition at labour markets, a rise of academic mobility, internationalization of universities, and development of technology and digital media. Higher education institutions in Kazakhstan attempt to catch up at

the top positions of global and national rankings in order to demonstrate their outstanding role in attracting local and international students and academics as well as to show their value to the government, research funding bodies and private investors. Nevertheless, despite some arguments and debates regarding objectiveness and validity of global ranking providers, students' choice of universities comes from results of rankings [278]. Based on universities' academic research and reputation, students have opportunity to compare universities around the world and to explore higher education options that exist beyond their own countries' borders. The important point subject to acknowledgement is not being misled in selecting definite area of study. Moreover, in recent past decades, global ranking bodies attempted to make some improvements in regards to criticisms of their methodologies and a quality approach to improve quality of world rankings has been developed in 2011 by IREG.

*2a. Listed in top QS World Ranking 2020.* The second approach was to figure out the main top higher education institutions (among 27, which are subject to institutional reform) in Kazakhstan listed in QS general ranking. In total, we obtained eight universities, where two HEIs have been removed from our list, since they are not subject to reforms, shift to non-profit organizations and KBTU being a private university.

*2b. Listed in QS University Rankings: Emerging Europe and Central Asia.* The next search focused on the ranking by region, where we had to remove two private universities and two national universities at which our research was not concentrated on.

*2c.* In the same manner, we attempted to search for universities ranked in the category of the “QS Graduate Employability Rankings 2020”, where the search provided only one university: al-Farabi Kazakh National University.

**3. Accreditation.** Quality management of education is an innovative path to progress. Effectively operating system of quality management of education makes the university competitive in the education and labour markets. During the years of independence, Kazakhstani higher school demonstrated flexibility and the ability to adapt in the most difficult conditions of the transition period. Despite the crisis, it was possible to preserve its intellectual potential, to ensure the accessibility of higher education. The most important innovative change in higher education system was the entry of Kazakhstan in 2010 into the Bologna process, and accreditation has become an important and necessary resource to ensure the international character of higher education according to the European standards. The autonomy of universities within the framework of the Bologna process was realized in the Kazakhstani higher school by refusing in 2012 from the State Education Programme Standard and forming educational programmes with a high level of academic freedom. In the contemporary world, accreditation plays a significant role in the internationalization of education, since successful accreditation is a proof that accredited degree programme meets the European standards. Kazakhstan as a developing Central Asian country is on the way of integrating the processes of accreditation into the system of education [279]. International programme accreditation is the right instrument to accredit study programmes according to international quality standards and the principles of the

Bologna Declaration. It is worth to say that accreditation offers excellent benefits for the university in terms of international recognition of degree programmes.

*3a. Programme accreditation.* After the selection of HEIs based on their positions at the world rankings, we arranged universities based on the number of accredited degree programmes.

*3b. International accreditation in foreign accreditation agencies.* The reason for ranking of institutions based on the percentage of study programmes in foreign accreditation agencies is “international accreditation”. According to Viligaila Vëbra, A., and Scheuthle, H., it can give a HEI external, European feedback with recommendations backed by a more extensive external experience than a regular national procedure [280]. Moreover, a foreign accreditation agency may approach an institution or a programme in a more independent way as it is not involved in any national discussions. Actually, international accreditation brings a great experience to HEI and agencies to learn from each other and to open one’s mind to new approaches and solutions. Attraction of mobile talents, international staff, construction of partnership and collaboration with stakeholders and investors should not be a single objective of higher education institutions. Quality assurance of education is a key high performance and mission of universities, thus leaders and managers of tertiary education should not be satisfied by their outputs at national or global rankings; it is of utmost significant to administrators of HEIs to acknowledge limitations of rankings; efforts must be focused on both inputs and outputs. To summarize, the need to introduce an accreditation procedure in the system of higher education in Kazakhstan was due to several reasons:

- implementation of agreements between the EurAsEC and CIS countries, according to which mutual recognition of diplomas of higher and secondary professional institutions is carried out only for graduates of accredited universities and colleges;
- integration of the system of higher and postgraduate education of Kazakhstan in the Bologna process;
- Cooperation with international networks on the quality of education for the exchange of information and development of comparable criteria and procedures. As an example, Kazakhstan participates in international quality assurance networks such as the International Network for Quality Assurance in Higher Education (INQAAHE), the European Network for Quality Assurance in Higher Education (ENQA) , in the network of agencies for quality assurance in higher education in Central and Eastern Europe, the Eurasian Network for the Quality of Education (ECCE), in order to develop comparable criteria and methodology;
- to improve the quality of education - in the interests of the satisfaction of all stakeholders and to ensure the international competitiveness of the national education system;
- to stimulate the mobility of students and teachers [279].
- International programme accreditation is the right instrument to accredit study.

The summary of our selection is illustrated in Appendix C. So far, we have identified three samples based on our classification and labelled them as ‘Sample 1’, ‘Sample 2’, ‘Sample 3.

To summarize the chapter, our research will grant a value to the role of academics as partners, internal stakeholders responsible for quality and as the main intellectual asset of organization. Introduction of new business models in Higher Education will reflect dramatic changes in HEIs in light of governance transformation from state-governed towards becoming more autonomous and accountable for the delivery of quality educational services and an increase of self-financed activities. In this case, the role of university managers responsible for quality performance becomes more crucial and it sets out to further understanding of university mission and functions. Despite existing arguments on implementation of New Public Management in higher education, Amara et al. concluded that, there is no ideal model of behaviour for HEIs. By introducing principles of NPM, it is important for HEIs to reconsider: the current organizational structure and level of accountability for the quality.

## **2.3 Analysis on improvement of internal governance in KZ HEIs**

The issue of quality assurance and quality management has been on the agenda of various national and international discussions worldwide. In recent years, there has been considerable growing interest in the concept of quality management among not only business people but also academics in Kazakhstan. For national universities of Kazakhstan, the issue of quality management and quality assurance has been one of the key strategic tasks of university management after the higher education system of Kazakhstan joined the Bologna process in 2010. Development of economy, transformation of higher education institutions into non-profit organizations, reforms in the management of universities, increasing competition at the labour market, as well as changing demands of the external environment pointed out the issue of quality and quality management as the most important topic of current university administrators' agenda.

The interesting point is that the concept of quality management in higher education is constantly interpreted and discussed from perspectives of external quality assurance procedures. The considerable regional and foreign studies and projects cover the issues related to the external quality assurance mechanisms (as accreditation) and the role of external stakeholders to quality assurance of education; thus, concentration is more addressed to the external environment. In light of the recent reforms in higher education, with the introduction of more managerial and financial autonomy to national and state universities in Kazakhstan, the level of accountability and responsibility for quality education is rapidly increasing, which in its turn negatively affecting academic freedom of staff and real quality of education. Despite the availability of research papers, addressing the issue, there is still a lack of studies focused on the role of internal organizational procedures developed in align to internal environment of universities. Considering, the scarcity of the existing studies, our research addresses the need for studying the internal environment of an organization to ensure quality from perspectives of internal stakeholders.

### ***Interpretation of “Internal Governance” dimensions***

This section outlines the key dimensions of the proposed internal governance discussed in the previous chapter. The objective of our research is to create reliable and valid measures for internal governance in higher education. Therefore, the research study focused on the development of the internal governance model based on the results of the World project carried out in European countries [273]. As been covered before, the project study was carried out by international scholars, who proposed their observations and good practices of European universities to develop effective internal governance. According to the project results, the proposed requirements for ‘good internal governance’ have been introduced for higher education institutions as a broad framework for the assessment of internal governance arrangements. However, we found out that there is a lack of empirical research focused on testing the importance of proposed arrangements to develop internal governance in HEIs and the impact of internal governance on development of effective quality management practice. Thus, our research study focused on

validation of key factors of internal governance and a design of a model of internal governance relevant to the scope of higher education institutions.

Following the international trends and good practices of internal governance in higher education, the four dimensions of good internal governance have been identified:

- Strategic development and governance
- Autonomy and accountability
- Cooperation and participation
- Differentiation of functions and distribution of powers

However, in light of new managerial approaches adapted into the higher education sector from the industry, the role of internal members of an organization is increasing. Several scholars believe that a prerequisite for quality products and services is development of quality culture and organizational change in an organization [280-283]. In this regard, we believe that the role of quality culture in the development of effective quality management and organization improvement is crucial, since the backbone and the brick of organization is not a sole system, neither processes nor standards, rather human capital. Subsequently, implementation of successful quality management practices stems from engagement of both internal (administrators and staff) and external stakeholders (employers, partners, accreditation agencies and society) into the process of quality management. We can assume that if the basic component of external quality assurance is accreditation, then the principal part of internal quality assurance is the development of quality culture within an organization. Given these points, we developed the fifth dimension of effective internal governance in higher education and named it as “Quality culture”.

Having identified key dimensions of internal governance in higher education, descriptions of each one is provided below.

***The strategic development and governance.*** The development of the clear mission, strategic objectives and planning, which can effectively guide activities of organization units and members, as well as in alignment with institution’s characteristics to fit the interest of internal environment, is crucial. In light of the constantly changing environment, flexibility and adaptability of governance structures and openness to innovations are important.

***Autonomy and accountability.*** This dimension covers the level of university accountability to society and government, as well as academic freedom of staff. Admittedly, with the rise of competitiveness and introduction of market-oriented approach in the higher education sector, the level of accountability increases, which in its turn can affect academic freedom of teaching and research. Considering the importance of the balance between accountability and autonomy, effective management of data collection about university performance and quality of activities for external quality assurance mechanisms without undermining academic freedom is crucial.

***Cooperation and participation.*** As for cooperation and participation, it relates to development of effective approaches to balance involvement of academics as key experts in internal governance and leaders to promote shared vision, appropriate

strategies at the institutional level. Appropriate involvement of the diversity of stakeholders (external - representatives of society and economy and employers, internal - academics, administrators, and students) in internal governance increases institution's ability to account for all stakeholders' interests and its responsiveness to external demands. In other words, it is more effective when all stakeholders act in the interest of higher education institution.

**Quality Culture.** It implies common responsibility, shared interest and values among all members of the organization for quality educational services. Enhancement of joint commitment of internal and external stakeholders to quality assurance (e.g. accreditation). University administration support and reward for quality achievement is essential for quality improvement, rather than quantity. In the same manner, development of trust between administration and academic staff, as well as introduction of quality assurance offices at the institutional and faculty levels can play significant role in enhancing quality management procedures.

**Differentiation of functions and distribution of powers.** As discussed, assignment of separate tasks for strategic development and its implementation between organization units and actors effectively is important as well. In this regard, appropriate monitoring and evaluations are significant to provide transparency of processes. Rights and responsibilities of different bodies and actors should be well and clearly defined. Equally, culture of transparency also implies that decision-making processes at all stages follow an adequate level of openness. In the same way, distribution of decision-making power should start from the lower institutional level without intervening the overall strategic development of an institution. In addition, constant support of administrative and academic staff for professional development is essential. (Developed by author based on [273]).

For the purpose of identifying and validating the above-discussed dimensions of internal governance organization, we exploited research survey to identify the effective internal governance model to align to viewpoints of internal stakeholders. The samples of the questionnaire consisted of administrators and academic staff of the leading higher education institution in Kazakhstan, ranked at 165 positions according to the QS World University Rankings. The reason for selecting the sample university is due to the profile and unique characteristics of universities in creating favourable working environment to deliver quality product. The reason for this selection lies on internal peculiarities and features of the environment within the university, where cultural and psychological elements of quality culture build up unique and favourable conditions to provide quality for organization development and improvement. In the same manner, being at the top position of the world ranking, the chosen university can be employed as a model for internal governance development in higher education. Respondents were selected according to non-probability convenience sampling method. Two types of the questionnaire were developed with slight divergences using 'google forms' and emailed to more than 1200 university administration and academic staff in total, among them 40 university managers, more than 40 faculty administrators, 200 department heads and the rest is academic staff respectively. More than 100 questionnaires were not delivered due to some technical errors. The survey was conducted for three months



from January to March of 2020. As a measurement tool, Cronbach's  $\alpha$  was applied for identifying reliability and consistency of the survey. The reason for using this method was to identify if the designed questionnaire accurately measured the variables, since Cronbach's alpha is a measure that assesses the internal consistency of a set of scale or test items. The standardized coefficient of Cronbach alpha  $\alpha_{st}$  is calculated in the following way:

$$\frac{N \cdot \bar{r}}{1 + (N - 1) \cdot \bar{r}}$$

where N is the number of studied items, and  $\bar{r}$  determines the average correlation coefficient between the items. Besides, the coefficient can be calculated by the following formula:

$$\alpha_{st} = \frac{N}{N - 1} \left( 1 - \frac{\sum_{i=1}^N \sigma_{Y_i}^2}{\sigma_X^2} \right)$$

where N measures the number of components under study,  $\sigma_X^2$  is the standard deviation of all the sets studied, and  $\sigma_{Y_i}^2$  is the standard deviation of an individual item. In this research, the second formula was applied.

The obtained results in table 23 illustrates that the total reliability of the measurement scale had an alpha coefficient of 0.952 and 0.972, which demonstrates excellent consistency in compliance with Cronbach's alpha internal consistency) [285].

Table 23 - Reliability Statistics

	Importance	Realization
Total items/questions/components	34	34
the sum of the item variances	9,5	14,4
the variance of total scores	125,5	255,1
<i>Cronbach's a</i>	0,95	0972
Note – calculated by Author		

Initially, the “Internal Governance” survey was tested by our colleagues who are responsible for their departments at the institutional level in al-Farabi Kazakh National University. The answers of respondents were divided into two parts: in the former, respondents were to identify the importance of described factors of internal governance for effective management of the organization in align with the following scale: “Important – Partially important – Not important”. In the latter section, the information about the practice of the university was asked through the following scale: “Implemented – Partially implemented – Not implemented”. After the first testing of the survey, some minor changes were introduced in the content of the questionnaire and were sent again to check the reliability of the survey. After getting positive approval from the colleagues, the final version of the questionnaire was ready.

The survey was designed to know viewpoints of the university's internal stakeholders about an effective model of good internal governance and to identify their perceptions about the existing internal governance in their organization. The results of

the survey were proceeded separately: responses of academic staff and administrative bodies of university, faculty and chair accordingly.

The questionnaire “Internal governance – Administration” was addressed to administrators of the university through emails individually and to the administration of faculties including chairs. The number of delivered questionnaires to administration staff was 282, among them 30 surveys were withdrawn due to some technical errors. In all, the response rate was 71 %, which was excellent indicator to proceed obtained results.

As for the second survey dedicated to academic staff, our sample consisted of 992 respondents, and 80 % of the population provided useful samples to proceed, where 199 responses were not valid to proceed.

Concerning the obtained samples of two questionnaires, the proceedings were carried out separately in respect to administrative and academic staff to figure out their attitude and assessment about the proposed dimensions of ‘internal governance’ as well as about the existing internal governance structure in the organization.

As for the sample design and data collection, professional breakdown of the samples in table 24 demonstrates that the majority of respondents come to administrators of chairs (63,3 %) since there are in average three or four chairs at each faculty. As for the working experience distribution, most of the managers have worked at the national university more than 15 years (38,8%). Indeed, it added significant value to our study, since they can evaluate and assess the existing internal governance procedures at the university based on their personal experience.

Table 24 - Analysis of Samples: Administrative Staff

<i>Samples</i>	<i>Frequency</i>	<i>Percentage (%)</i>
<b>Position</b>		
<i>Administration staff at the university level</i>	37	18,4 %
<i>Administration staff at the faculty level</i>	36	18,3 %
<i>Administration staff at the chair level</i>	127	63,3 %
<i>Total</i>	200	100 %
<b>Work experience</b>		
<i>1-3 years</i>	12	6,1 %
<i>4-9 years</i>	70	34,7 %
<i>10-14 years</i>	41	20,4 %
<i>More than 15 years</i>	77	38,8 %
<i>Total</i>	200	100 %
Note – author’s own research		

The academic background of samples presented in table 25 reveals that most of the respondents have a higher academic degree (candidate of sciences – 41,7 %, PhD – 20,6%) and more work experience (41,3 % -15 years) in the target university, which can significantly contribute to the outcomes of the empirical study and shape the desired type of internal governance for effective quality management of the institution.

Table 25 - Analysis of Samples: Academic Staff survey

<i>Samples</i>	<i>Frequency</i>	<i>Percentage (%)</i>
<b><i>Academic Degree</i></b>		
<i>Doctor of sciences</i>	126	15,8 %
<i>Candidate of sciences</i>	331	41,7 %
<i>PhD</i>	163	20,6 %
<i>Master's degree</i>	121	15,3 %
<i>PhD candidate</i>	52	6,6 %
<i>Total</i>	793	100 %
<b><i>Academic Rank</i></b>		
<i>Professor</i>	105	13,2 %
<i>Associate professor</i>	243	30,6 %
<i>Senior lecturers</i>	90	11,4 %
<i>Without academic degree</i>	355	44,8 %
<i>Total</i>	793	100 %
<b><i>The field of sciences</i></b>		
<i>Humanities</i>	399	50,3 %
<i>Nature sciences</i>	236	29,7 %
<i>Economics, business and law</i>	48	6,1 %
<i>Social sciences</i>	96	12,1 %
<i>Medical and health sciences</i>	5	0,6 %
<i>Art</i>	9	1,2 %
<i>Total</i>	793	100 %
<b><i>Work experience</i></b>		
<i>1-3 years</i>	250	31,5 %
<i>4-9 years</i>	115	14,5 %
<i>10-14 years</i>	101	12,7 %
<i>More than 15 years</i>	327	41,3 %
<i>Total</i>	793	100 %
<p>Note: candidate of sciences – is an academic degree equivalent to PhD, the doctoral degree awarded in the former Soviet countries before signing the Bologna Declaration            Note – Author's own research</p>		

We applied two different research approaches to proceed the obtained results of the questionnaire. *The first approach was* – a descriptive one to identify attitude of academic and administrative staff about the importance and implementation level of proposed dimensions of internal governance at the university. The reason for the development of the questionnaire to academic and administrative staff with slight differences was to identify how academics view effective internal governance and evaluate the existing practice at the university in comparison to administration's overview. The obtained findings demonstrate that there are still shortcomings of university management in pursuit of quality management in an institution.

The presented dimensions highlight that it is important to identify strong points and shortcomings of the existing internal organization governance to provide a better functioning quality management model, which meets the needs of both external and

internal stakeholders. In this regard, we developed the key variables, which encompass the basic and essential elements of organization management. The 34 items were used to measure the five factors of internal governance described in table 26.

Table 26 - Conceptual framework of Internal Governance development

Dimensions	Variables	
Strategic development and governance	SDG1	Development of mission and strategic objectives in alignment with the needs of the labour market
	SDG2	Development of planning procedures with academic staff involvement
	SDG3	Engagement of external stakeholders in the strategy development process
	SDG4	Monitoring of goal achievement according to the strategic objectives and planning
	SDG5	Competence and ability of university administration to make decisions for effective implementation of a strategy
Autonomy and accountability	AA1	Availability of more academic freedom for teaching and research
	AA2	University administration openness to initiatives and innovations from academic staff
	AA3	Academic staff engagement in decision-making processes
	AA4	Effective management of workload between administrative, research and teaching activities
	AA5	Accountability to the government and society through external quality assurance mechanisms without undermining the academic staff freedom
Cooperation and participation	CP1	Development of effective approaches to involve internal members in internal governance at the institutional level
	CP2	Engagement of external stakeholders in quality assurance procedures
	CP3	Engagement of internal members in quality assurance procedures
	CP4	Feeling of safety and care within an organization
	CP5	The feeling of support and motivation for achievement
	CP6	University management proactively attracts and retains high-quality staff
Quality culture	QC1	The feeling of responsibility within an organization for quality education
	QC2	The common shared interest and values among university members (including faculty staff) to provide quality educational services
	QC3	Enhancement of joint commitment of internal and external stakeholders to quality assurance (e.g. accreditation)
	QC4	University administration support and reward for quality achievement, rather than quantity
	QC5	There are clear procedures and processes to define, measure, evaluate and enhance quality
	QC6	University administration trusts on academic staff / Academic Staff trusts on university administration
	QC7	There is a closed feedback loop in external and internal quality assurance mechanisms
	QC8	There is a quality assurance office at the central level
	QC9	There is a quality assurance committee at the faculty level

Continuation of table 26

Differentiation of functions and distribution of powers	DFP1	The balance between educational and administrative activities
	DFP2	Distribution of tasks effectively according to the professionalism and competence of unit members
	DFP3	The bottom-up approach in solving problems and identifying the weaknesses and strengths of an organization
	DFP4	The clear design and the structure of the quality management
	DFP5	The rights and responsibilities of different actors are well-defined and clear.
	DFP6	Decision-making processes are carried out open and transparently for all members of the organization
	DFP7	Less bureaucracy and pressure during external quality assurance procedures (e.g. accreditation, ranking report fulfilment)
	DFP8	Promotion and support for academic staff at all levels through tangible and intangible incentives
	DFP9	Ensuring staff development and professional training
Note – developed by Author based on [271].		

The analysis of the findings demonstrates that the proposed dimensions of ‘effective internal governance’ are of utmost important in organization management. We summarized key points of the conducted research to figure out the validity and applicability of the developed so-called ‘model’ in higher education institutions. Our key purpose was to identify to what extent the proposed dimensions meet requirements and needs of university administration and academic staff to develop effective quality management tool through identifying the best practices of internal governance. The findings of the study illustrated in table 27 demonstrate that there are moderate fluctuations about the attitude of administrative and academic staff regarding ‘importance’ and ‘implementation’ of the proposed dimensions.

Table 27 - The mean score of expectations and perceptions of internal governance: Administration staff versus Academic Staff

Code	Important		Fairly important		Not important		Implemented		Partially implemented		Not implemented	
	Adm	Acad	Adm.	Aca d.	Ad m.	Aca d.	Adm.	Acad.	Adm.	Acad	Adm.	Acad.
	In average (%)											
SDG	65 %	62 %	18 %	20 %	2 %	3 %	34 %	32 %	33,2 %	27 %	3 %	8 %
AA	74 %	69 %	18 %	16 %	3 %	4 %	23 %	19 %	39 %	30 %	17 %	18 %
CP	72 %	67 %	25 %	18 %	1%	6 %	23 %	21 %	44 %	32 %	15 %	17 %
QC	81 %	71 %	12 %	16 %	3 %	2 %	38 %	25 %	37 %	30 %	10 %	14 %
DFP	82 %	75 %	12 %	12 %	1 %	2 %	26 %	22 %	41 %	30 %	15 %	20%
Note – Author’s own research												

Figures 10 and 11 illustrate the perceptions of administrative and academic staff about the importance of having and developing the proposed dimensions of “internal governance” at the university. The positive and common trend of the obtained results is that both university administration and faculty staff have common interest and understanding of having effective internal organizational procedures and mechanisms to improve quality education rather than their perceptions about the existing practices in the framework of the proposed dimensions. It is interesting to note that there is a dramatic difference between ‘importance’ and ‘implementation’ responses, which highlights the necessity of organizational change within an institution.

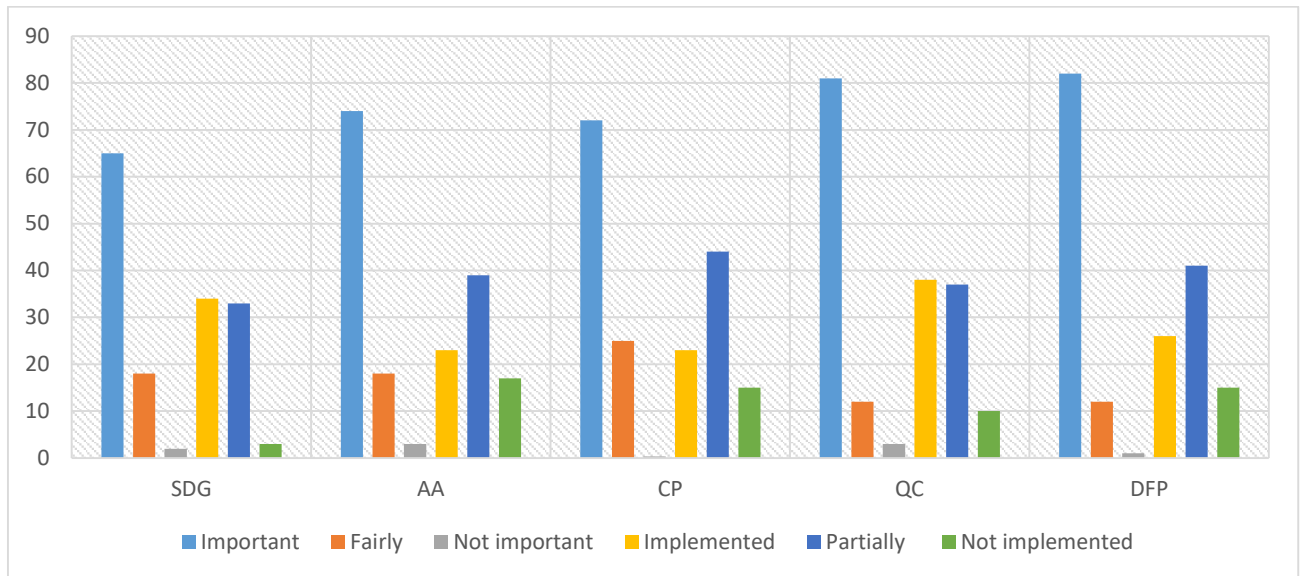


Figure 10 - Mean score of dimensions by Administrative Staff (in percentage)  
 Note – Author’s own research

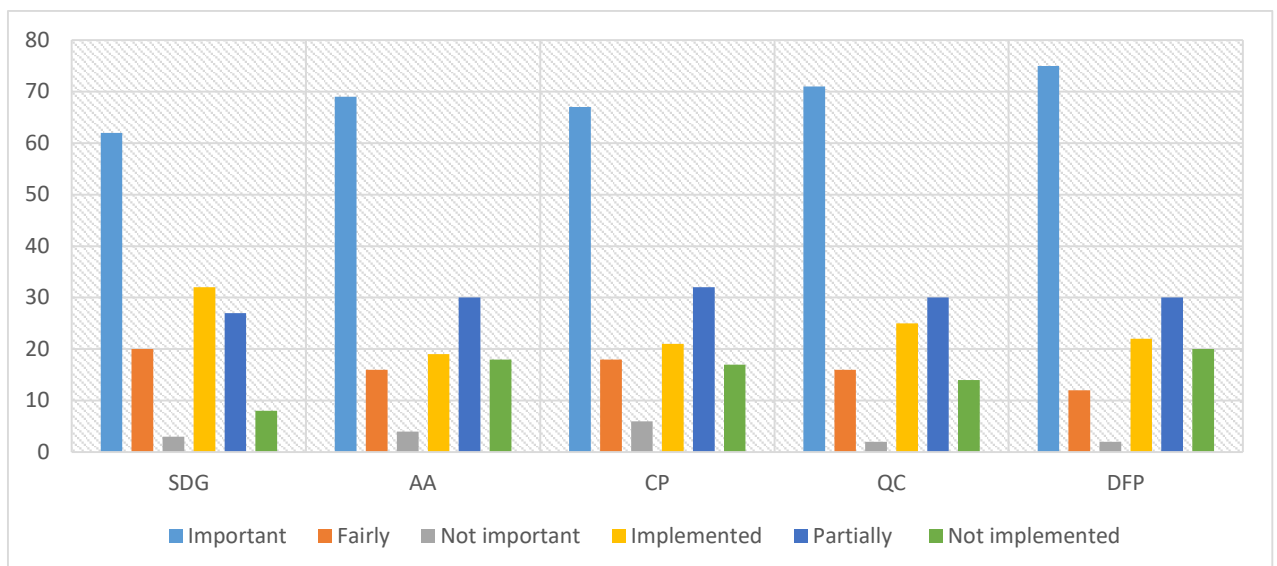


Figure 11 - Mean score of dimensions by Academic Staff (in percentage)  
 Note – Author’s own research

As can be seen from figure 12, there is a moderate discrepancy between administrative and academic staff about perceived practices of internal governance at the university.

It can be assumed, that there is no balance and mutual relationship between common understanding and perception of organizational procedures and activities within an organization.

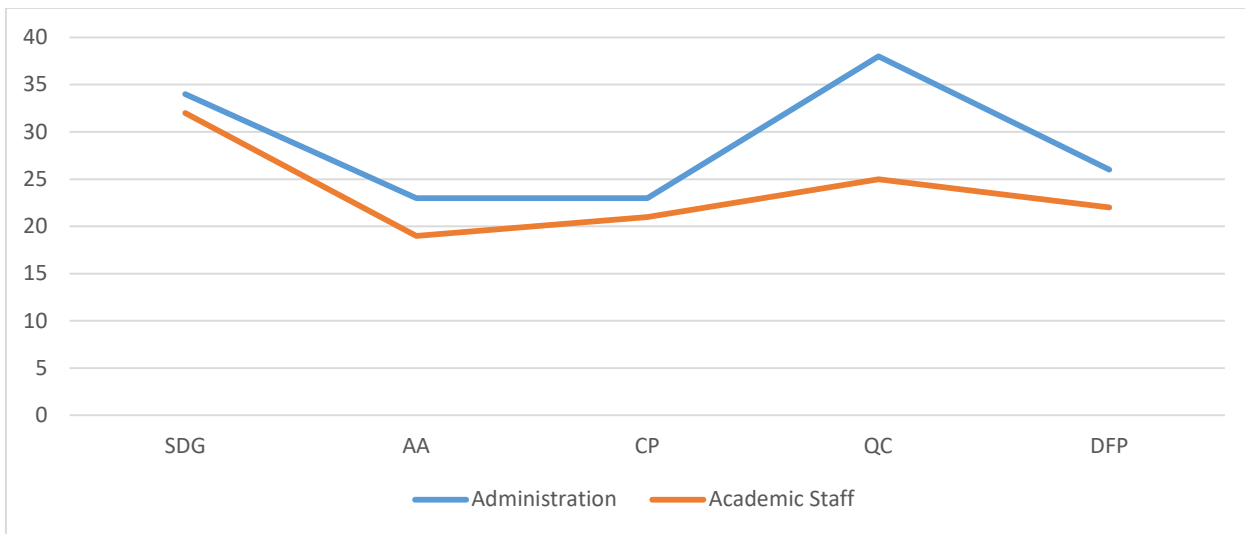


Figure 12 - The percentage of the perception of the academic and administrative staff about the existing internal governance at the university via scale “Implemented”  
 Note – Author’s own research

It can be observed, that in all five dimensions, there is a substantial difference between perceived ideas of administrative and academic staff about internal governance. The presented data demonstrate that there are two existing challenges within an organization: the first one can be interpreted as an ineffective approach or inappropriate mechanisms of university management to develop effective internal governance and to create favourable environment within an organization, or the second assumption is that there is almost no mutual communication between university administration and faculty staff. Please refer to figure 13.

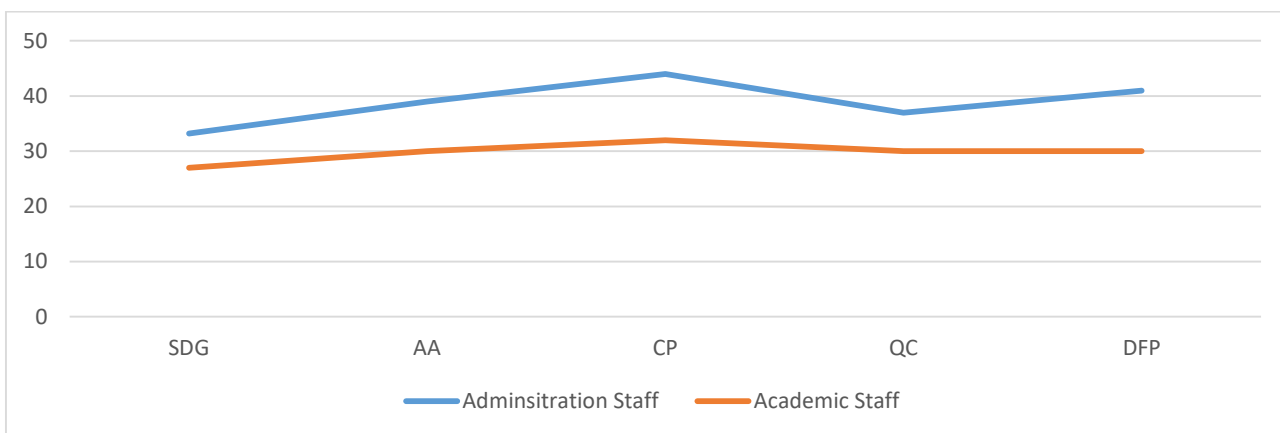


Figure 13 - The percentage about the perception of the academic and administrative staff about the existing internal governance at the university via scale “Partially implemented”  
 Note – Author’s own research

In figure 14, we can see the opposite diagram to the previous ones. Generally speaking, academic staff demonstrate less level of implementation of the proposed dimensions. Again, we can assume from the graph, that there is an absence of common and unique understanding of the needs and requirements of organization’s member by university management or again there is no channels and communications between administration and staff, which is the most significant barrier for effective quality management at the institutional level.

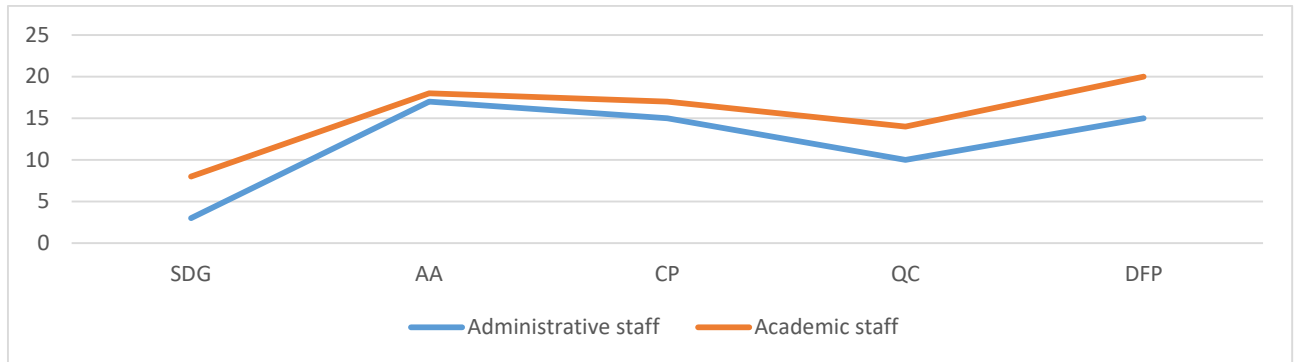


Figure 14 - The percentage of the perception of the academic and administrative staff about the existing internal governance at the university via scale “Not implemented”  
Note – Author’s own research

*The second approach* applied in our research was factor loading analysis to test validity and reliability of the developed dimensions and factors of internal governance. To validate and test our hypothesis if the developed items and designated factors listed in table 28 are important dimensions to develop internal governance in higher education institutions, we applied factor-loading analysis, which was a helpful measurement tool to identify key dimensions of internal governance development in universities. The confirmatory factor loading analysis was used to identify the reliability and validity of the proposed factors of internal governance at higher education institutions. The 34 items used in the measurement. The factor loadings of the items in each dimension principally turned out to be pretty well, but some items did not fall into the same factor as expected. The variation of data is best explained by the first factor, which includes only items of factor “*Differentiation of functions and distribution of powers*”. Then the second factor, which included items of different groups: three variables from ‘*Collaboration and participation*’ and four items from “*Autonomy and Responsibility*’. Judging by the statements included in the second factor – this is about the relationship of the university administration to employees, we think that factor analysis has better-differentiated items by factors and identified the important components of ‘internal governance’. The factor loading of each item is listed in Appendix D.

The findings of our research reveal that the factors related to ‘*Differentiation of functions and powers within an organization effectively*’ and dimension ‘*Quality culture*’, as well as ‘*Strategic development and governance*’ are important dimensions of internal governance, as they were expected before factor analysis. The feelings of



safety, support and academic freedom within an institution, trust and openness of university management on professionals and their active engagement in key-strategic decisions, as well as adequate management of workload encompass the second dimension of internal governance. Since the developed items cover the intangible assets of an organization in terms of the relationship between staff and university management, we renamed this factor as *'Autonomy and cooperation'*. As for the fourth dimension, the study demonstrated the necessity of deep concentration on issues of the joint commitment of both internal and external stakeholders in external and internal quality assurance mechanisms. Thus, we refer to the fourth factor as *'Commitment of stakeholders in quality assurance procedures'*. Figure 15 - Conceptual model of Internal Governance.

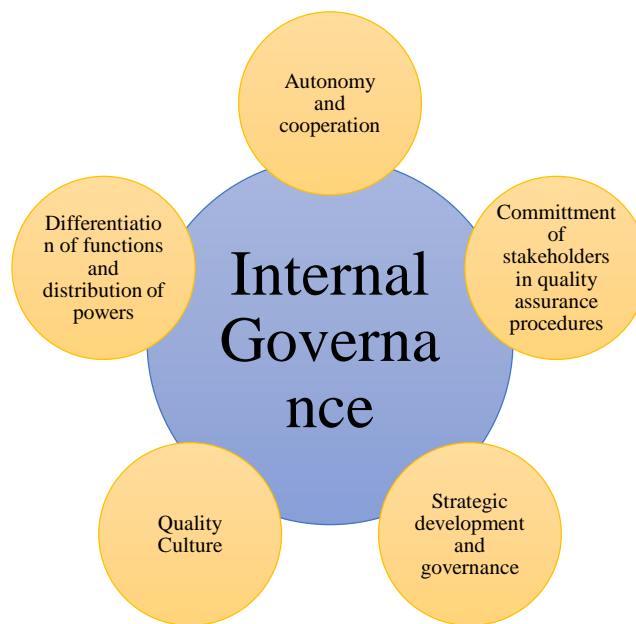


Figure 15 - Conceptual model of Internal Governance  
 Note – developed based on Author’s own research

Without a doubt, we claim that designing of sufficiently adaptive and flexible internal governance structures, generating innovative solutions to respond to the demands of external stakeholders is crucial for national universities in Kazakhstan, which gained managerial autonomy in 2019 and currently on the phase of transformation to non-profit organizations. At the same time, in light of new managerial approaches in higher education, the clash with organizational management and strong resistance of academic staff emerge. The opponents of QA believe that managerial approach can strengthen top-down management at the expense of the academics’ autonomy. Thus, development of appropriate internal governance technique, which fulfils the requirement of external quality assurance through favourable internal QA processes, where bureaucratic approach changes to managerial logic and less pressure on academics, is significant. Today indeed, there are some units at universities responsible for quality assurance processes. However, in practice, the effectiveness of their activities and impact on overall university’s quality improvement and performance is still the issue of discussion.

In light of new changes in the higher education system, universities' responsibility for their activities, mainly for quality education and finance is emphasized, consequently, the internal pressure for accountability and competition rises. In this regard, the university administration needs to implement new managerial approaches not only at the institutional level but at the organizational level as well. Consequently, the role of internal governance developed in compliance with an organization's internal environment plays a crucial role in quality management.

To summarize obtained findings, our research enabled us to identify key dimensions of internal governance and to design a new unique model of internal governance features applicable solely in higher education.

We outlined a new approach to quality management in higher education. The findings of factor loading analysis structured new factors of internal governance and unified some variables related to the relationship between university members. We believe that concentration on each aspect of proposed internal governance development in higher education institutions will be a key strategic step of university management in pursuit of quality. Since identified key factors of internal governance encompass needs and requirements of internal and external stakeholders of university, the commitment of both stakeholders to quality improvement increases.

We believe that the proposed dimensions of internal governance can serve as a theoretical guideline for prospective university managers to define if there is a need to make changes in existing organizational culture to manage university effectively and to reshape their organizational structures. Our research opens new research questions in terms of theoretical and empirical studies, as well as provides valuable information about the concept of internal governance for academics, scholars, as well as for candidates of a PhD degree programme. Since today, HEIs are facing economic, political and social challenges of globalization in positioning itself at the labour and education arena, development of effective internal governance in accordance with the needs of both external and internal stakeholders is essential for quality management. Our findings give a new insight for university managers and practitioners to consider the existing environmental conditions of an organization before setting new strategies and goals to develop an effective quality management system, to ensure quality education and to be competitive in educational and labour markets.

### **III. RECOMMENDATIONS FOR THE DEVELOPMENT OF A NEW QUALITY MANAGEMENT TOOL IN HIGHER EDUCATION FROM PERSPECTIVES OF THE BUSINESS EXCELLENCE MODEL**

#### **3.1 Recommendations on improvement of quality management practices in Kazakhstani universities**

As discussed in the previous chapter, in recent decades, higher education system in Kazakhstan has been encountering external pressures and competition for quality and funding. From 2010s, after joining the Bologna process, the higher education system of Kazakhstan has practised various important policies to improve quality. Different approaches have been adopted for the introduction of quality management in universities such as ISO 90001:2015, self-assessment practices, external assessment procedures, participation in World University and national rankings, accreditation and certification systems and other practices based on TQM.

According to Bureau of Economic and Business Affairs (2012), Kazakhstan is recognized as a market-oriented economy by the European Union and the US Department Commerce [286]. In recent years, higher education system in Kazakhstan has been facing and experiencing radical changes through various reforms of modernization. The starting point was joining the Bologna process in 2010 to align higher education system with principles of the European Higher Education Area framework (EHEA). Since, then ceaseless series of reforms, programmes, regulations, experimentations have been carried out to provide quality education. However, despite implementation of diverse quality assurance procedures in higher education, the issue of quality education and compliance with demands of the labour market remains on the agenda of government, local bodies and university administration.

As reported in the ‘Law On Education’ (2018) the academic independence of universities is demonstrated through development of degree programmes, rules and procedures for enrollment of students, design of university structure and staff, creation of affiliated research institutes, endowment-funds for development of university as well as identification of major commercial activities of institutions [287]. In addition, according to the State programme of Education Development for 2016-2019 years, the significant attention is paid to autonomy of universities in Kazakhstan [288]. In the framework of the Bologna process, higher education institutions practice big steps in obtaining more academic freedom.

It is worth to note that the introduction of the Bologna process is the key impetus to the market-oriented approach. The degree of autonomy from the main body – the Ministry of Education and Science depends on the type of organizations: public and private. Particularly, the former being fully supported by the government and the latter exercises less financial support from the ministry and more focus on student’s tuition fees. In recent years, the system of higher education in Kazakhstan has changed at the national and institutional levels in alignment with the principles of the Bologna Process. As an evidence, a non-commercial organization the National Chamber of Entrepreneurs of the Republic of Kazakhstan “Atameken” is created to strengthen the

negotiating power of business with public sector organizations. The role of this body together with the Ministry of Education and Science is to define the rankings of the quality study programmes and to evaluate in what extent study programmes meet employers' expectations [289]. The new reform, aimed at expansion of the academic, managerial and financial autonomy of HEIs was introduced in 2018, where academic freedom is defined by granting empowerment to universities to independently design and develop degree programmes to improve the quality of education and to meet expectations and needs of labour market. As for managerial autonomy, public universities are free to create their own management system. Starting from 2020 all public and national HEIs are to be transferred to a non-profit joint stock organizations with 100% state participation, which enable universities to carry out diverse commercial activities such as attraction of additional funding, financial resources based on research performance, creation of branches in foreign states and etc. Namely, financial autonomy enables the creation of start-ups and research units, commercialization of research outcomes, and the most important aspect of financial independence is creation of endowment-funds, which will enable allocation of all financial resources to the development of universities [290].

In the context of university independence and academic freedom, so far major measures have been realized. The most important is the objective of the State Programme for the Development of Education in the Republic of Kazakhstan for 2016-2019 to introduce more independence and autonomy in higher education institutions of Kazakhstan. As part of the Bologna process, universities have already taken the first steps towards obtaining more freedom and autonomy in their academic activities:

- Development of degree programmes in compliance with the European standards at all levels;
- Promotion of academic mobility of students and academic staff;
- Lifelong learning process;
- Increasing attractiveness of universities, the ability to be open to all regions of the world;
- Emphasis on the development of student-centered learning;
- Freedom to design the content of all level programmes in accordance with the needs and requirements of the labor market.
- The creation of the Board of Trustees and Supervisory Boards, as well as the Board of Directors in universities.

Indeed, granting autonomy to national universities will lead to increased responsibility for quality educational services and accountability to the government and society. In addition, recent introduced reforms in the education system, taking their roots from the best practices of Western countries, will indeed reduce public expenditure through competition, market mechanisms and customer-orientation. Undoubtedly, the new adapted reforms will certainly assure quality education. However, the extent of its successful adaptation and implementation in compliance with national peculiarities and philosophy of the HE system requires deep study of aspects of internal governance and management.

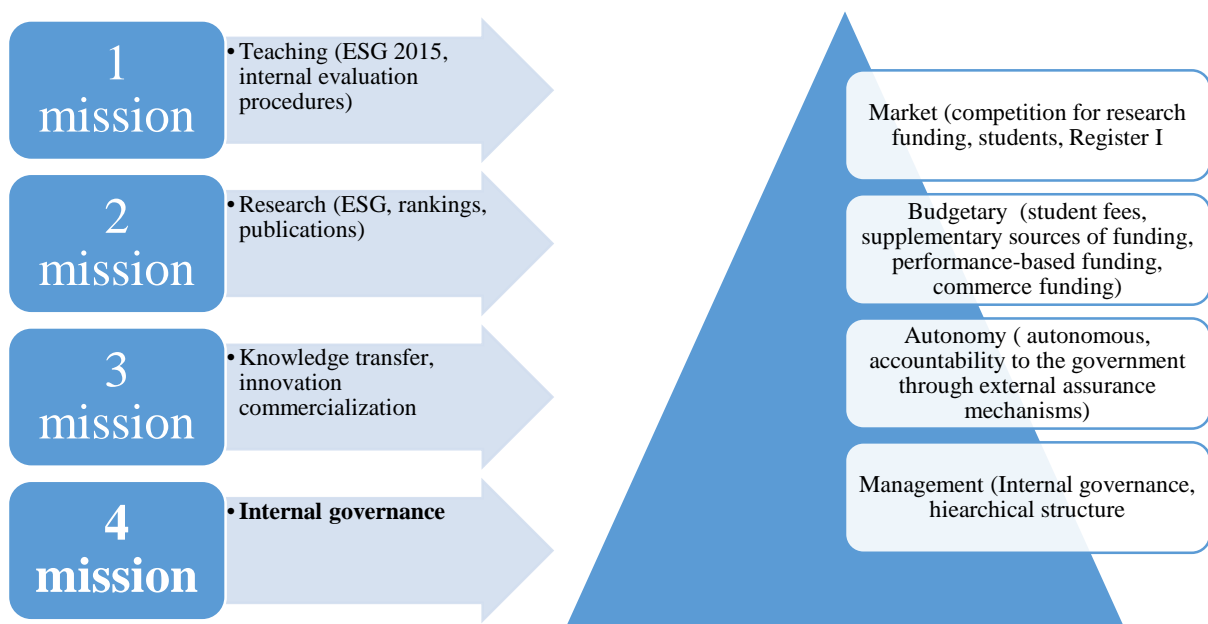


Figure 16 – The conceptual model of Quality Management integrated with elements of New Public Management

Note - developed by Author based on own research

As can be seen from figure 16, the features of New Public Management in Kazakhstani higher education can be observed in light of recent reforms in higher education system. Obviously, from our observation, we can conclude that transformation of state and national universities to non-profit organizations, granted managerial, academic and financial autonomy, demonstrates the introduction of New Public Management.

*So far the theoretical analysis of the domestic studies on quality management discussed in Chapter I, revealed the most significant drawback of existing research studies about improvement of higher education and quality management in higher education; that is almost lack of papers on investigation of universities internal governance as a prerequisite for effective quality management.*

In this context, the appropriate step in internal organization of the institution without undermining the core value and academic freedom of internal members of the university is crucial. The reason for our study of the implementation level of NPM principles in higher education is an attempt to study the fourth pillar of the new management approach separately, to define its role in quality assurance of educational services and to introduce a new model of quality management at the organizational level.

Within this framework, we attempt to examine the impact of new public management in national universities of Kazakhstan. Our research will strive for analysis of the fourth pillar of NPM, as well as introduction of new management style or technique to enhance performance of university. Actually, the main objective of business-like approaches in higher education is to increase efficiency and effectiveness of higher education services and improvement of quality of processes.

The descriptive overview made by Broucker B., Kurt De Wit and Liudika Leisyte on implementation of NPM principles in different countries, which is classified

by five clusters can be applied as a guide to define the NPM-related reforms in Kazakhstan [176]. Through studying the reforms of NPM in the above mentioned countries, we attempted to figure out which principles of NPM have been already implemented in Kazakhstan and which are subject to adaptation.

The research work has summarized main characteristics of NPM implementation in Kazakhstan and obtained the following results:

Table 28 – Patterns of New Public Management in Kazakhstani higher education

<i>Market</i>	<i>Budget allocation</i>	<i>Autonomy</i>	<i>Management</i>
<i>Increased competition for students (since they define a number of allocated grants by the ministry) and for quality study programmes</i>	<i>Shift to more research output and performance-based funding through external quality assurance mechanisms</i>	<i>Academic, managerial and financial autonomy</i>	<i>Hierarchical management structure, importance of external stakeholders</i>  <i>Our proposal: enhancement of internal management through delegating ‘special status’ to academics and introducing new administrative staff coordinating together with academics in pursuit to quality education. Treatment of academics not as ‘employees’.</i>
Note – developed by Author based on [176] and own analysis			

Briefly saying, in light of new managerial approaches, the focus of the government is on priority objectives for development and monitoring of university performance through external quality assurance mechanisms like accreditation and evaluation procedures. In addition, the way of funding is based on universities achievements and competitive potential. Despite the common conceptual idea of NPM, the pace of development and implementation of new approach varies depending on the specific characteristics of countries and regions.

Among all latest reforms and programmes introduced in education sector of the country, our focus comes to the State programme about transformation of higher education institutions to non-commercial organizations. It is worth to note, that every new practice, approach, technique or instrument based on foreign practice need deep reconsideration of the current status quo of each organization and introduction of changes through adoption taking into account the internal peculiarities and features of institutions. To illustrate, after joining the Bologna process, in pursuit to quality education, internationalization, reputation and branding image, the higher education institutions in Kazakhstan have introduced international accreditation and participation in rankings. We are not telling that the Bologna declaration was not an effective approach to modernize higher education system. Granting that, it is an innovative path towards excellence, quality education and internationalization of higher education system in the country, which provides a dialogue and forum among all participating

countries about higher education reforms, shared academic principles, autonomy of universities as well as participation of students and employers in educational processes [291]. According to the plan of the SPED for 2020-2025, the modernization of university governance in Kazakhstani HEIs concentrates mainly on improvement of professional competencies of university leaders. Please refer to table 29 - Modernization of University governance at all levels.

Table 29 - Modernization of University governance at all levels

	2020	2021	2022	2023	2024
Professional development of university managers in the field of management	20	40	60	80	100
Mechanisms <ul style="list-style-type: none"> <li>- Formation of managers and leaders team expert in their fields.</li> <li>- Development and implementation of assessment of university leaders' activities by key performance indicators.</li> <li>- Introduction of collegial management bodies in HEIs focusing on quality of their content.</li> <li>- Implementation of innovation management and re-design of the organizational and administrative environment and decision-making system in HEIs.</li> </ul>					
Note – compiled by Author based on [292].					

According to the programme on strengthening of competitiveness of HEIs in Kazakhstan, a new management system for universities that meets the challenges of the time is required.

Table 30 - The governmental programme to enhance competitiveness of HEIs in Kazakhstan

	First league	Second league
Criteria	“Competitiveness at the international level”	“Competitiveness at national level”
HEIs	National and private HEIs (10-15 HEIs)	National, regional and private (20)
Indicators by 2025	5 HEIs – in the top-list of international rankings (QS, THE, ARWU)	To be in the first league; 10 top list in national rankings
Motivation for achievement	Full autonomy and funding, no ministerial control interference	Autonomy and financing of particular fields; no ministerial control interference
Qualification requirements	International rankings, accreditation; effective corporate management; Strategic programme for development of HEI and structure to achieve strategic aims; Internationalization of academic staff, students, research; Impact on development of economy and society	National rankings, accreditation; effective corporate management; Strategic programme for development of HEI and structure to achieve strategic aims; Internationalization of academic staff, students, research; Impact on development of economy and society

The state programme for Development of Education of the Republic of Kazakhstan for 2011-2020 points out the necessity to support and motivate academic staff, as well as to enhance management in education, including introduction of corporate management principles, and formation of state-private partnership in education sector as one of its objectives; identifies as a key purpose of the state programme to modernize education, and lists various programmes and reforms being realized in two stages 2011-2015 and 2016-2020. However, there is still on the agenda of the governmental and institutional meetings and discussions issues of quality education, disbalance between expectations and perceptions of employers about quality of graduates, as well as incompliance of degree programmes with needs of the society and the labour market. So, what is the problem, despite realization of state programmes and adaptation of foreign best practices into higher education system? The issue is that all practices and approaches are implemented based on external pressure and requirements of external environment. In pursuit to accountability for quality, quantitative reports, self-assessment reports, the administration of universities fail to recognize the needs and requirements of internal environment. There is no balance between satisfaction level of external and internal stakeholders of higher education institutions. To illustrate, the process of accreditation is handled in most cases through hierarchical approach, more bureaucracy coming from the university management, and no analysis of needs and recommendation of internal members, less engagement of academic staff in decision-making processes, in most cases their desire experience ignorance. The outcomes of successful accreditation are employed to report to the government, to create branding image and reputation. Nevertheless, it is worth to note that the role of international accreditation is crucial in quality assurance of education. Most higher education institutions has realized the role of foreign or international accreditation in increasing their international reputation and partnership, as well as its impact on a stronger connection with the foreign labour market, benefits for students in terms of finding employment after graduation abroad [293]. Even though, the foreign practices should not be adapted at the expense of academic staff's time, effort and freedom. Admittedly, the main backbone of any higher education institution is quality and professional academic staff. The State programme points out, as one of the opportunities to modernize higher education system is introduction of new effective management approaches in higher education.

The update of the content of higher education is characterized by a significant changes to approaches of quality management in universities. The main reform is expansion of academic, managerial and financial independence of universities to effectively respond to market demands and increase competitiveness at national and international levels. The traditional forms of university governance is being transferred to more autonomous type. Granting autonomy to HEIs has become a natural response to the needs of the new economy and "academic globalization", where HEIs need to constantly respond to the challenges of the labor market and compete for academic staff, students, research grants and other resources. In this regard, more independence and autonomy of universities in their governance indeed plays a crucial role to adequately respond to global education trends and the needs of potential stakeholders.



The basis for the legislation on granting of autonomy was an in-depth analysis of national and foreign researchers by the Ministry of Education and Science of the Republic of Kazakhstan. The pioneers to suggest introduction of more flexible type of university governance were OECD in the framework of the Country Review of Higher Education Policy in 2007. In 2014, the Information and Analytical Center of the Ministry of Education and Science of the Republic of Kazakhstan, according to the methodology of the European Association of Universities, carried out an analytical study and assessment on the degree of development of university autonomy in Kazakhstan (figure 17).

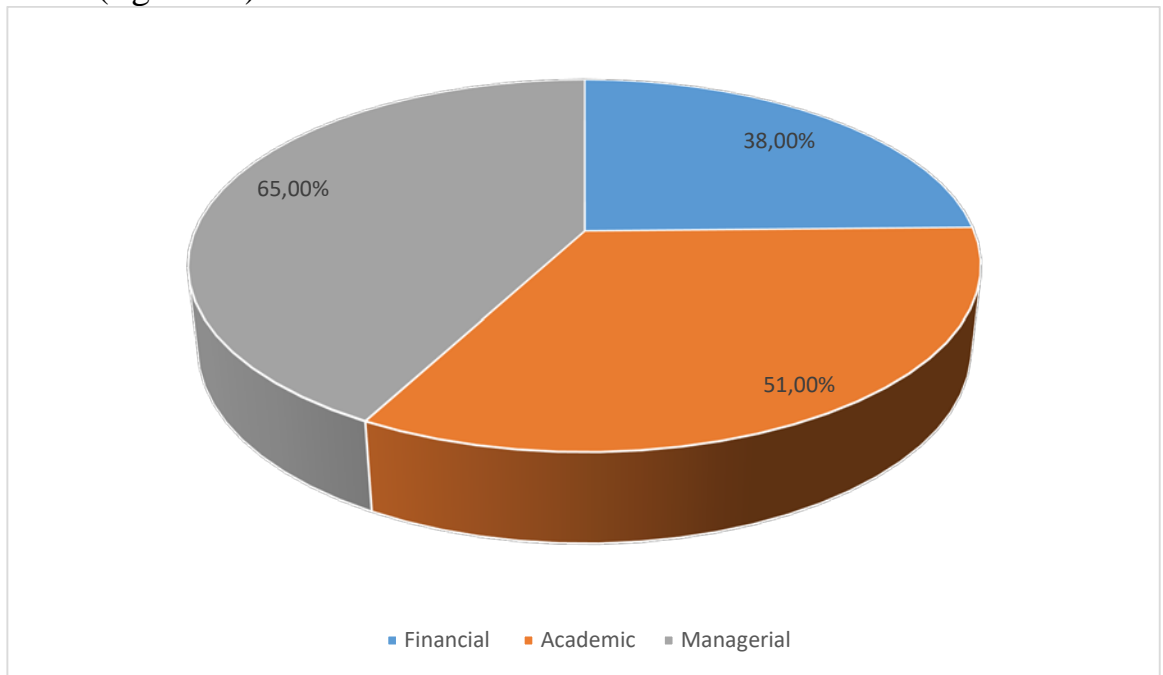


Figure 17 – Assessment on the degree of development of university autonomy in Kazakhstan.

Note – developed by Author based on OECD Report on Higher Education Policy [293]

The results of the OECD study highlighted Kazakhstani government’s attempts to promote more financial, academic and managerial flexibility in universities. As a result, the Ministry of Education and Science and subordinate organizations adopted the Law on expansion of universities independence. The amendments made in the framework of the Law reflected the following updates.

Table 31 – Expansion of university autonomy in the framework of the Law 2018

	Changes introduced in the Law
Academic autonomy	<ul style="list-style-type: none"> <li>- Expansion of autonomy up to 80-95%</li> <li>- Academic honesty as a fundamental principle of university activities</li> <li>- Independent development and approval of admission rules</li> <li>- Independently awarding of students with bachelor's and master's degrees.</li> <li>- Development of qualification characteristics of employee positions.</li> <li>- Development and approval of the rules for competitive replacement of positions of teaching staff and scientific workers.</li> </ul>

Continuation of Table 31

Financial autonomy	<ul style="list-style-type: none"> <li>- Creation of endowment funds, start-up companies</li> <li>- Universities can independently open legal entities for scientific and educational activities</li> <li>- Universities are given the opportunity to open branches in foreign countries</li> <li>- Universities can independently attract additional sources of funding.</li> </ul>
Managerial autonomy	<ul style="list-style-type: none"> <li>- Supervisory Boards in 28 state universities</li> <li>- Boards of Trustees in 42 state universities</li> <li>- Introduction of a mechanism for selection of rectors through supervisory boards (22 rectors have been elected).</li> <li>- 82 foreign top managers are involved in the management of universities.</li> </ul>
<p>Note - Law of the Republic of Kazakhstan July 4, 2018 "On Amendments and Additions to Certain Legislative Acts of the Republic of Kazakhstan on Expansion of Academic and Management Autonomy of Higher Education Institutions" and [295].</p>	

In addition, the State programme for 2010-2020 points out that engagement of all interested parties to management (including academic staff, other stakeholders), which improves the system of management in education [296]. It should be noted that the reforms initiated by the Ministry of Education and Science of the Republic of Kazakhstan in terms of academic and managerial expansion of universities is aimed at increasing the social responsibility of universities for quality of education, for university performance and for the formation of a modern worldview of the younger generation.

As reported by the findings of the empirical research study carried out in European private and public sector organizations, there are various motivations and barriers about implementation of the ISO 9001 standard and adoption of the EFQM model. Regarding the motivation to implement the ISO standard, the internal motivation is ‘improvement in systematization, efficiency and internal control’, whereas external one is customer demand and reputation. As for motivation to adopt the EFQM model, it is based mostly on internal motivation: ‘improvement of planning, management capabilities’, and improvement of internal staff engagement, team work and communication. However, the EFQM model needs considerable time to mature. In addition, the empirical study presented the obstacles to implement the ISO standard and adopt the excellence model. In the context of the ISO standard, the first barrier comes to high level of bureaucratic workload and lack of motivation among internal staff. As for the barriers in adopting the EFQM model, there is the lack of resources to work with the model [208].

Table 32 - Link of the Excellence Model with ISO standards

	ISO	EFQM
<i>Implementation approach</i>	Standard	Holistic approach, non-prescriptive model

Continuation of table 32

<i>Scope of models</i>	Achievement of excellence through customer satisfaction based on processes	Achievement of excellence based on overall performance of organization, customer focus is just part of it.
<i>Principles</i>	<ul style="list-style-type: none"> <li>• Customer focus</li> <li>• Leadership</li> <li>• Involvement of People</li> <li>• Process Approach</li> <li>• Improvement</li> <li>• Evidence-based decision-making</li> <li>• Relationship Management</li> </ul>	<ul style="list-style-type: none"> <li>• Result-oriented</li> <li>• Customer focus</li> <li>• Leadership and constant purposes</li> <li>• Process and fact management</li> <li>• People development and involvement</li> <li>• Continuous learning, innovation and improvement based on new knowledge</li> <li>• Development of Partnerships</li> <li>• Corporative Social Responsibility</li> </ul>
<i>Methods</i>	Quality audit	Self-assessment
<i>Criteria</i>	Management commitment, Responsibility, authority and communication	Leadership
	Customer focus, Quality policy, Planning	Strategy and Policy
	Human Resources, Work environment	People
	Provision of resources, Infrastructure,	Partnerships and Resources
	Product realization 8.2.2 Internal audit 8.2.3 Monitoring and measurement of processes 8.3 Control of nonconforming product 8.5 Improvement	Processes, Products and Services
	Customer Satisfaction	Customer Results
	-	People Results
	-	Society Results
Analysis of Data	Key Results	
Note – developed by Author based on own research		

One of the core differences between two quality management models is ISO 9001 ‘specifies requirements for a quality management system, whereas the EFQM ‘is a non-prescriptive framework which recognizes availability of various approaches to achieve sustainable excellence’. Thus, the wider application of the excellence model in all activities of organization covering both external / internal stakeholders enable orientation on wider scope of organization activities rather than ISO standards, which focus on customer and regulatory requirements [297]. The benefits of introducing the family of ISO standards are improvement of organization and planning procedures, whereas the EFQM model can stand for its principles to improve organizations’ management systems. Nevertheless, it is worth to note the common features of two quality management systems; both of them are based on ‘PDCA’ circle (plan – do – check – act). Based on the previous version of ISO 9001:2000, Russel developed a comparative mapping of two models to identify key aspects and criteria covered by

two models [297]. Following, this practice, we have adopted a comparative analysis of the excellence model and the latest version of ISO 9001:2015, which currently functions in Kazakhstani national universities, to identify key linkages between two models. The results of our observation demonstrate the lack of accent and emphasis on management of ‘people, partnership and resources’ on ‘Enablers’, which in turn illustrate low level of concentration on achievements of people. Admittedly, the ISO standards focus more on processes and policy, whereas the EFQM concentrates more on human resources and their achievements. Table 33 – The key features and variations between EFQM and ISO 9001:2015.

Table 33 – The key features and variations between EFQM and ISO 9001:2015

Enablers				
Criteria of excellence	ISO 9001:2015 contribution	Sub criteria	Linkages of ISO 9001:2015 Elements	Assessment
Policy and strategy	High	2a 2b 2c 2d	5.1.2., 9.1.2. 5.2.1., 9.3., 9.2. 5.2., 6.2.1. 6.2.1., 6.1., 6.2., 6.3.	Covered
Processes	High	5a, 5b, 5c, 5d, 5e	Covered throughout by 8.2. 8.3.	Covered
Leadership	High	1a 1b 1c 1d 1e	5.1., 5.2.1. 5.2. 5.3. 9.3. 5.1.2. 5.1.1. 6.2. -	Covered
Partnership and Resources	Low	4a 4b 4c 4d 4e	7.1.1. 7.1.5. 7.4. 7.1.3., 7.1.4. 7.1.5 7.1.6.	Partially covered
People	Low	3a 3b 3c 3d 3e	- 7.2., 7.3. 7.1.2., 5.3. 7.1.4. -	Partially covered
Results				
Criteria of excellence	ISO 9001:2015 contribution	Sub criteria	Linkages of ISO 9001:2015 elements	Assessment
Customer results	Medium	6a 6b	5.1.2. 9.1.2. 9.1.3.	Covered
Key performance results	Low	9a 9b	Throughout 10. 9.3. 9.1.	Partially covered
People results	None	7a 7b	-	Not covered
Society results	None	8a 8b	-	Not covered
Note – developed by Author based on [297].				

Having concluded our observation, we can claim that the EFQM model can be considered to be the next step towards excellence and improvements of organization's performance after having the ISO certification. In the literature, the scholars claim that the higher the number of ISO certification, the higher the results of adopting the EFQM model is [298].

Equally important, the applicability of the EFQM excellence model in higher education can be justified by the first Sheffield Hallam University successfully tested its effective implementation, as well as the popularity of the excellence model application in higher education sector worldwide. Figure 18 – EFQM Recognition by sectors worldwide.

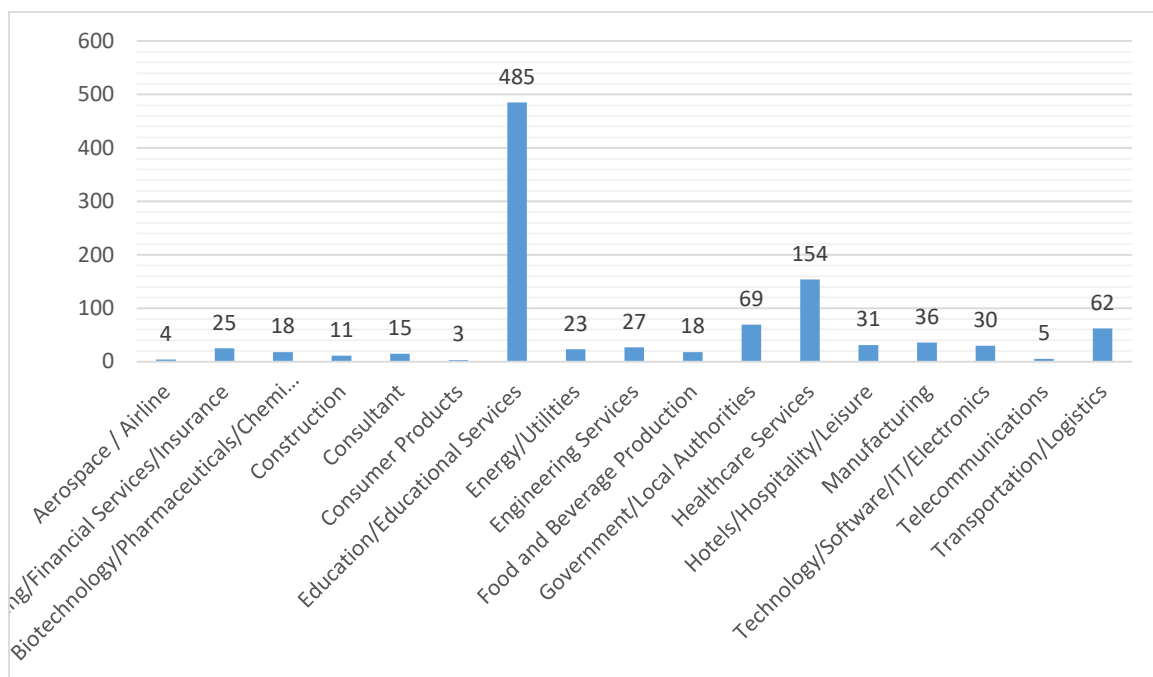


Figure 18 - EFQM Recognition by sectors worldwide  
 Note - Source – EFQM Forum Report, Milan 2016 [299]

As figure 18 illustrates, the application of the EFQM model as a driving tool for excellence is frequent in education sector, which justifies applicability of the model and its success in education, which can bring new innovative changes and improve performance.

During the consortium for excellence in higher education in 2000, the EFQM was defined as a strategic tool for performance management and governance, strategic planning, developing key performance indicators, benchmarking, identifying good management practice and for the achievement of sustainable improvement in all aspects of performance. It should be noted that, universities in different countries operate in quite different environments, thus an attempt to implement the EFQM model should not be realized through ‘copying / mimicking’ approach. Factors like governmental legislation, regulations, funding mechanisms, expectations of stakeholders, demands of society all definitely play a significant role in the use of the

model. In this regard, the main contribution of the current PhD thesis is a development of a guidance framework for the use of the EFQM excellence model in Kazakhstani universities.

Sheffield University practice demonstrates that, the EFQM model is about how university manages itself more effectively through analyzing the current status-quo of the university management and expected quality outcomes. Following, the research thesis has identified key prerequisites, fundamental motives to the introduction of the EFQM model and finally barriers for the implementation of the model.

Table 34 – Possibilities of implementation of the EFQM excellence model

<b>Pre requisite for introduction of the EFQM model:</b>
<p><b>Strong leadership</b></p> <ul style="list-style-type: none"> <li>- Long-term senior management commitment</li> <li>- Focus on a customer delivery</li> <li>- Management and leadership practices based on motivation, support, empowerment and encouragement</li> <li>- Focus on teamwork and professionalism of academic staff</li> <li>- Embedment of quality culture. Transformation of leadership and culture. Change of organizational culture</li> <li>- Overcoming of resistance to change through education, communication, involvement, support and negotiation</li> <li>- Supportive organizational behavior, culture of openness and co-operation</li> <li>- Change in Recognition and rewards practices for staff involvement in self-assessment activities</li> <li>- Project-based approach, appointment of a project manager with PM skills, knowledge of the excellence model in the context of higher education</li> <li>- Preparation for the implementation process</li> <li>- Implementation of planning before self-assessment</li> <li>- Sufficient amount of resources (time, money, people, access to information) and appropriate allocation of resources</li> <li>- Training and education programmes at early stages for staff involved in self-assessment</li> <li>- Internal communication between top managers and staff (understanding of the purpose and objectives of self-assessment)</li> <li>- Internal stakeholders' involvement in self-assessment activities and their commitment to quality through team working.</li> <li>- Integration of the use of the EFQM excellence model into strategic planning of the university.</li> <li>- Staff involvement and teamwork</li> <li>- Integration of the EFQM model in the organizations</li> </ul>
<b>Benefits of excellence model (self-assessment)</b>
<ul style="list-style-type: none"> <li>- Identification of improvement areas</li> <li>- Direction of improvement process</li> <li>- Encouragement of motivation for improvement process</li> <li>- Management of business with involvement of staff</li> <li>- Development of enhanced management practices in academic and administrative areas</li> <li>- An effective tool to develop plan what to achieve and how to achieve.</li> </ul>

Continuation of table 34

Key motives for implementation of the EFQM model:	
<p>External motivation:</p> <ul style="list-style-type: none"> <li>- enhancement of customer satisfaction, preparation for external assessment, improvement of competition potential and market share</li> </ul>	<p>Internal motivation</p> <ul style="list-style-type: none"> <li>- Commitment of top management</li> <li>- Sufficient number of motivated people</li> <li>- Desire to change, acceptance of the need for change</li> <li>- Desire to increase numbers of students</li> <li>- Improvement of job satisfaction</li> <li>- Recognition the need for improvement</li> <li>- Internal motives related to optimization of resources, improvement of quality of products and services and external reasons related to market-society-government requirements</li> </ul>
<p>Expected barriers for successful implementation of the model:</p> <ul style="list-style-type: none"> <li>- Lack of feedback mechanisms in the university</li> <li>- An unwillingness / resistance to change</li> <li>- Lack of support from leadership. Lack of leadership commitment</li> <li>- Lack of feedback system once drawbacks have been identified.</li> <li>- Lack of understanding</li> <li>- Lack of human and financial resources</li> </ul>	
<p>Expected outcomes after introduction of the EFQM model (based on Sheffield University practice):</p> <ul style="list-style-type: none"> <li>- Strategic approach to management</li> <li>- Communication and engagement of senior management with staff at all levels</li> <li>- Development of better management skills by academics</li> <li>- Development of clear vision, mission, strategies and goals shared by everyone</li> <li>- Clear focus on what to measure and how to achieve</li> <li>- Effective assessment and review of management approaches</li> <li>- Development of better feedback and self-assessment mechanisms for business planning</li> <li>- Focus on external stakeholders and effective management of relationships</li> <li>- Increased motivation and commitment of staff for quality</li> <li>- Improved internal governance and teamwork</li> <li>- Improved decision-making process and motivation</li> <li>- Improvement in leadership and internal communication</li> <li>- Improvement of planning and management capabilities [207].</li> </ul>	
<p><i>IMPORTANT 1: Organizations, which introduce self-assessment activities for internal motives focus more on improvement plan, rather the ones which are motivated by external forces.</i></p> <p><i>IMPORTANT 2: Implementation of the EFQM excellence model is not a quick process; it needs transformation of thinking, culture, behavior and environment.</i></p> <p><i>IMPORTANT 3: Implementation of the excellence model has a long-term impact. The model is about continuous improvement.</i></p> <p><i>IMPORTANT 4: The results organization achieves depends on what organization does in terms of its management practices.</i></p>	
<p>Note: compiled by author based on own research</p>	

Summarizing the above presented table - 34 on motives behind the use of the excellence model, it should be noted that internal motivation to improve organization

is significantly important and effective, rather than motives triggered by external forces, since the former focuses more on improvement plan.

Finally, the reason why the PhD thesis recommends the excellence model as a quality management tool can be justified by following statements:

- It is a self-assessment approach and a planning tool, which guides organizations towards quality.
- It can be used as a reference framework for the implementation, evaluation and improvement of quality in higher education.
- The validity and reliability of the model has been tested successfully in higher education
- The practicability of the model, which focuses on what organization does and what and how it achieves.
- Self-assessment of existing quality management practices, support for decision-making processes
- It is a diagnostic tool aimed at identifying the strong and weak sides of organization based on nine criteria
- The implementation of model is voluntary, not initiated by external forces and control of the government, which in turn minimizes administrative burden and accountability.
- It can add a value in academic, research and administrative areas.
- The model can be used as a strategic tool to enhance university performance.
- The model is an excellent tool to change and improve management practices.

Concluding the subchapter, the results of the research recommends the introduction of the EFQM model as a quality management tool and identifies the following reasons and possibility of introduction of the excellence model in higher education of Kazakhstan:

- Transformation of university governance to market-oriented type.
- Academic, financial and managerial autonomy granted to national universities
- Increasing competition for students and funding
- Reorientation of university approaches to more customer-oriented and business-like behavior
- Increasingly competitive market place
- The need for universities to conduct their activities in a business-like manner using the excellence model as an appropriate quality management tool in the framework of transition to non-commercial organizations.

*To conclude, in the next sub-chapter of our dissertation, we have proposed the unique model encompassing elements of the above discussed popular quality management model, underlining enhancement of internal organization processes of universities.*



### **3.2 The mechanism of EFQM excellence model implementation as a quality management tool in higher education**

In light of changes in the type of university governance with rising pressures and competition from external environment, development of a new quality management approach applicable to higher education is crucial. Indeed, there is a wide scope of research studies discussing the importance of quality management approaches in HEIs to promote competitiveness and to improve performance. Acknowledging the importance of effective quality management development to ensure quality product, the research paper promotes the EFQM excellence model as a quality management tool, which brings continuous improvement and excellent performance of universities through achieving excellence in management and finding out strong and weak points in key areas of the administration. To our knowledge, this is the first study to deal with the EFQM model in regional studies from perspectives of its application in higher education.

As has been already discussed in Chapter I, the Excellence Model is a systematic quality management approach to gain competitive advantage through self-assessment. The practicality of the model is that it is non-governmental, non-financier driven, which addresses quality management issues of an organization. Regarding the implementation of the EFQM model at the university, self-assessment analysis is considered to be an effective tool, since the principles of the model are fully consistent with the development goals of the university in the field of quality, as well as there are no contradictions with other quality standards like the QMS. Benefits of implementing EFQM model as an instrument of quality management in higher education can be characterized as preservation of balance between needs of all stakeholders, study of weak and strong sides of organization performance, creation of friendly working environment and finally, constant improvement through self-assessment procedures (figure 19).

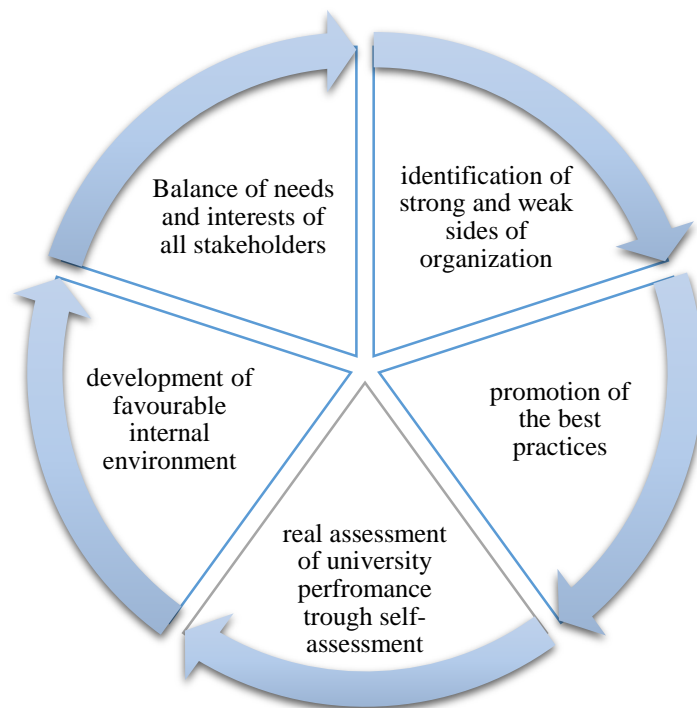


Figure 19 – Benefits of EFQM model implementation in higher education  
 Note - developed by Author based on own research

The best argument about implementation of principles of the EFQM model is it strives for innovation development and improvement of quality of university performance. In this, regard, based on theoretical and empirical research studies, the thesis proposes the guideline on introduction of principles of the excellence model as an innovative instrument of quality management, analyses the adopted version of the model in the context of higher education, as well as proposes the mechanism for implementation of the proposed model, applicable to higher education.

***Principles of EFQM excellence model***

As illustrated in figure 20, result-oriented principle of the excellence model encompasses achievement of results, which satisfy needs of stakeholders. The customer-oriented one deals with creation of value add to potential customers of organization. Leadership and constancy of purposes cover the inspirational role of leaders in achieving organization’s mission and objectives, as well as in creating favourable internal environment. Management of organization’s activities through interaction and inter-related network of units and processes is one of key principles of the excellence model. Development and engagement of people as well as creation of a working environment of shared values and a culture of trust, openness, empowerment and recognition contribute to organization’s benefits. Continuous learning, innovation and improvement based on acquisition of new knowledge and skills. Development of partnerships and corporate social responsibility of organization leads to the excellence of performance. Based on the content-analysis method, the research thesis has introduced the ‘FLEXIBILITY’, ‘MOTIVATION-ORIENTED’ as additional important principles of the excellence model.

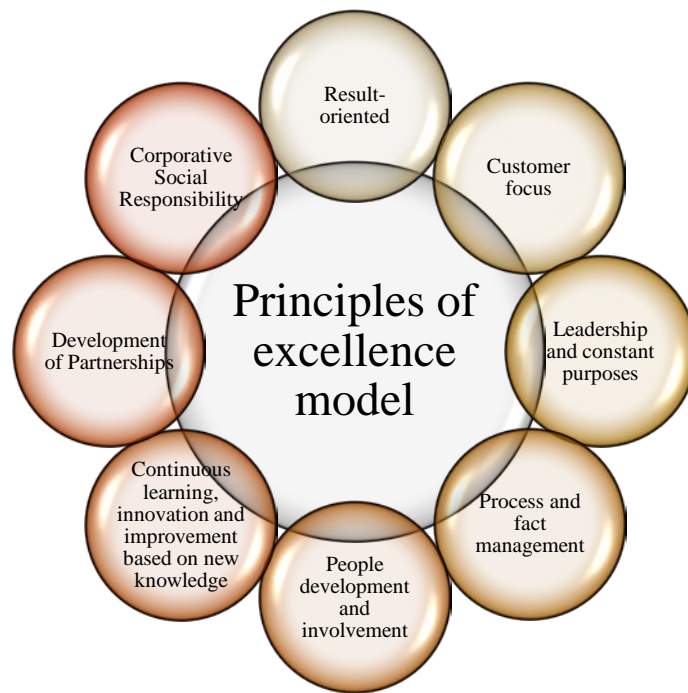


Figure 20 – Principles of the EFQM excellence model  
Note - EFQM model

***Adopted version of the model in the context of higher education.*** The adopted version of EFQM model enables university management to assess their achievement of excellent results based on their capacity and opportunities through development of effective leadership, motivated people, policy, strategies and partnerships. The nine-box criteria is used to identify key weak and strong points of the university performance through self-assessment analysis. The first 1-5 criteria are designed to identify what the university does and how it approaches to achieve the desired results. Thus ‘Enablers’ criteria are managerial practices of organization. As for criteria “Results”, they are designed to measure perception and performance results of organization through measurement of people, customer, society and key performance results of organization. The achievement of desired results are promoted by constant learning and promotion of innovation within an organization.

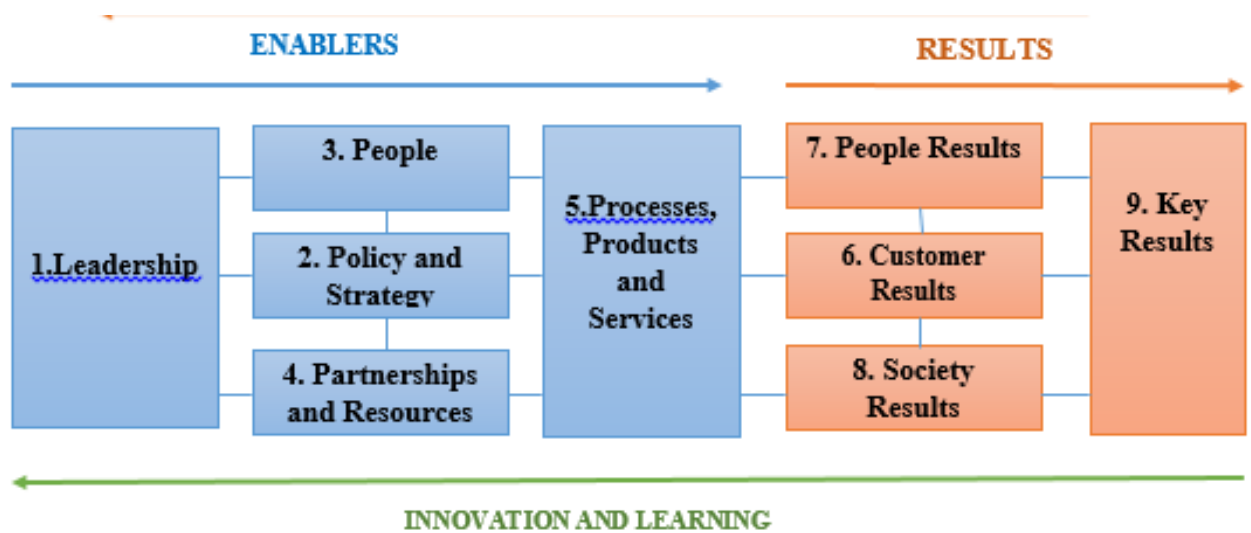


Figure 21 – EFQM model  
 Note - EFQM model

As a result of content-analysis and field study, we rearranged some criteria and developed them in the context of higher education, so we could apply them in higher education through adoption approach. Please refer to table 35.

Table 35 – The adopted version of the EFQM excellence model in the context of higher education

		Enablers	
Criterion		Sub-criterion	
Business	Higher education	Business	Higher Education
Leadership	<i>Leadership, University management</i>	1a. Leaders develop the mission, values and ethics and act as role models	<i>Leaders commitment to the development and improvement of university mission, vision, and values in cooperation with external stakeholders and professional academics</i>
		1b. Leaders define, monitor and review and drive the improvement of the organization’s management system and performance.	<i>Leaders commitment to define, monitor and drive the improvement of the organization’s management and performance together with external stakeholders, professional academics</i> <i>They design an organizational structure</i>
		1c. Leaders engage with external stakeholders	<i>Leaders engage with external stakeholders to know their expectations and opinions</i>
		1d. Leaders reinforce a culture of excellence with the organization’s people.	<i>Leaders promote a quality culture with internal stakeholders</i>
			<i>They encourage students’ and staff’s involvement in the improvement procedures</i>
			<i>They publicly acknowledge the success of people in quality improvement procedures</i>
		1e. Leaders ensure that the organization is flexible and manage change effectively.	<i>Leaders ensure the flexibility and manages change effectively</i>
Policy and strategy	<i>Policy and strategy</i>	2a. Strategy is based on understanding the needs & expectations of both stakeholders and the external environment.	<i>The development and update of university policies and strategies cover needs and expectations of all stakeholders</i>
			<i>Policies and strategies comply with mission, vision and values of university</i>
		2b. Strategy is based on understanding internal performance & capabilities.	<i>Strategy is based on internal performance and capabilities of the university</i>
		2c. Strategy and supporting policies are developed, reviewed and updated.	<i>Development and update of university policy and strategies is realized based on requirements of changing environment</i>

Continuation of table 35

		2d. Strategy and supporting policies are communicated, implemented and monitored	<i>University has a procedure aimed at realization of university policies and strategies through short term plans</i>
People management	<i>Internal stakeholders (academic staff, students)</i>		<i>Policies and strategies are clearly formulated in a written form</i>
		3b. People’s knowledge and capabilities are developed	<i>Professional development and training of academic staff</i>
		3c. People are aligned, involved and empowered.	<i>Engagement of academic staff in decision-making processes</i>
			<i>The commitment and engagement of academic staff in the improvement and quality management activities</i>
		3d. People communicate effectively throughout the organization	<i>Academic staff communicate effectively with administration</i>
		3e. People are rewarded, recognised and cared for	<i>Identification of staff’s present and future needs in relation to their knowledge, competencies and skills</i>
<i>Recognition, rewarding of academic staff for quality achievements</i>			
Partnerships and Resources	<i>Partnership (cooperation with domestic and foreign institutions, research institutes, business sector – promotion of ‘Triple Helix’) and resources (financial and technical)</i>	4a. Partners and suppliers are managed for sustainable benefit.	<i>The common view and shared interest of partners and university to generate value and mutual benefits</i>
			<i>Establishment of partnerships with suppliers for university performance</i>
		4b. Finances are managed to secure sustained success	<i>Management of financial resources accordingly, efficiently to attract more staff that are professional, and to update technical resources.</i>
			<i>Allocation of resources for professional and personal development of staff and students</i>
			<i>Appropriate financing for development of university’s policy, strategy and continuous improvement actions</i>
		4c. Buildings, equipment, materials and natural resources are managed in a sustainable way	<i>Improvement of technical resources in align with needs of internal members and requirements of accreditation agencies</i>
4d. Technology is managed to support the delivery of strategy	<i>Management of technology to deliver strategy and quality education</i>		

Continuation of table 35

		4e. Information and knowledge are managed to support effective decision making and to build the organization's capability	<i>Management of information and knowledge to promote effective decision-making processes and to assure quality education</i>
			<i>Implementation of mechanisms for the identification of the information needs of the stakeholders</i>
Process, Products	<i>Academic, research processes, internal governance</i>	5a. Processes are designed and managed to optimise stakeholder value.	<i>Improvement of teaching processes to meet employers', students' and society's needs</i>
		5b. Products and services are developed to create optimum value for customers.	<i>Improvement of research processes to meet employers', students' and society's needs</i>
	<i>Degree programmes</i>	5c. Products and services are effectively promoted and marketed	<i>Design and update of degree programmes to meet needs of the changing environment</i>
		5d. Products and services are produced, delivered and managed.	<i>Development of quality educational services</i>
	<i>R&amp;D Research outputs</i>	5e. Customer relationships are managed and enhanced	<i>Organization of effective internal governance to respond to external environment (accountability and quality assurance mechanisms)</i>
		New sub-criterion	<i>Improvement of internal governance to meet internal member's needs</i>
		New sub-criterion	<i>Introduction of internal quality assurance guidelines</i>
<b>RESULTS</b>			
Customer Results	<i>Employers, Society Satisfaction</i>	6a. Perceptions. These are the customer's perceptions of the organization. These perceptions should give a clear understanding of the effectiveness, from customer's perspective.	<i>Students' satisfaction with quality of education</i>
			<i>Employer's satisfaction with graduates</i>
			<i>Successful employment of graduates</i>
			<i>Development of degree programmes in Register I to be competitive at the educational market</i>
		6b. Performance indicators. These indicators should give a clear understanding of the deployment and impact of the organization's customer strategy, supporting policies and processes.	<i>Evaluation of employers' perception</i>
			<i>Evaluation of students' perception</i>
			<i>Feedback management and control for continuous improvement</i>
			<i>Performance in Rankings to attract students and employers</i>
			<i>Building reputation (via rankings)</i>

Continuation of table 35

People Results	<i>Internal stakeholders satisfaction and Professional Development</i>	7a. Perceptions These are the people’s perception of the organization. These perceptions should give a clear understanding of the effectiveness, from people’s perspective.	<i>Development of efficient internal governance</i>
			<i>Tangible and intangible incentives for academic staff motivation</i>
		7b. Performance indicators. These are the internal measures used by the organization in order to monitor, understand, predict and improve the performance of the organization’s people and to predict their impact on perceptions	<i>Measurement of academic staff’s satisfaction with internal environment</i>
			<i>Promotion of professional development and trainings for academic staff</i>
Society Results	<i>Commercialization, Graduate employment</i>	8a. Perceptions This is society’s perception of the organization.	<i>Performance indicators Evaluation of outcomes and processes is regularly carried out and supported by measurement.</i>
		8b. Performance indicators. These are the internal measures used by the organization in order to monitor, understand, predict and improve the performance of the organization	
Key performance Results	<i>Quality research outcomes, quality teaching, R&amp;D</i>	9a Business outcomes. These are the key financial and non- financial business outcomes, which demonstrate the success of the organisation’s deployment of their strategy. The set of measures and relevant targets will be defined and agreed with the business stakeholders.	<i>Self-assessment Reports Evaluation of outcomes and processes is regularly carried out and supported by measurement International and programme accreditation</i>
		9b Business performance indicators. These are the key financial and non-financial business indicators that are used to measure the organisation’s operational performance. They help	<i>Results/outcomes of the evaluation process are discussed with relevant stakeholders and appropriate action plans are put in place Discussion and Analysis of Accreditation Reports University Ranking Reports</i>



Continuation of table 35

		monitor, understand, predict and improve the organisation's likely business outcomes.	
Note – developed by Author based on [212] and Author's own research			

Considering the findings of our research, in the following table, we summarized key critical success factors for the successful implementation of the EFQM based quality management model. Please refer to table 36.

Table 36 - The key critical success factors of the EFQM-based quality management model implementation

<b>Critical success factors</b>	<b>Description</b>
Leadership	Personal involvement of top management in daily processes, the ability to transform mission into values, principles of quality, policy, strategies, and support of staff engagement in decision-making processes and improvement actions, as well as coordination of the best practices of teaching and research
Staff's commitment and engagement	Staff's effective involvement and commitment in continuous improvement activities
Professional training and development of staff	Training about quality issues and quality management tools, as well as about self-assessment practices
Adequate communication and information systems	Shared information among all members of the university about the benefits of the quality improvement processes.
Follow-up processes	Follow-up activities enable development of quality culture and improvement actions through 'planning, doing, checking and acting cycle'.
External supportive environment	To develop the most effective the EFQM-based quality management model, apart from commitment of internal members, it is crucial to engage external parties to identify the main strengths and opportunities of an institution through assessment procedures by experts and expertise bodies (like accreditation agencies).
Note – developed by Author based on [211].	

Highly appreciation of the EFQM model is the participation and engagement of academic and non-academic staff of the university, as well as improvement of organization performance through self-assessment. Following, implementation of the adopted version of the excellence model, the research thesis has proposed a key mechanism of its application in higher education.

**People:** The process of self-assessment using the EFQM model can be realized through creation of a project team with a group of people from different departments and faculty with different functions, experience and levels.

**Responsible body:** At this point, as soon as the self-assessment analysis is conducted, the department for quality management is responsible for regular monitoring of the realization of the set plan and elimination of the weaknesses. The head of quality management department or a leader of a project should have high competency of and knowledge about his organization and about the excellence model, as well as how to promote the process of self-assessment. As stated in SPED, managers and academic staff of HEIs need new skills of management and professional development in light of outcome-oriented approach in university management. Since

the quality and efficiency of self-evaluation realization depends on professional competency, analytical, communicative and managerial skills of department head or a project leader.

Period: The period of the project work is identified by project managers and realization of objectives after self-assessment is decided by university management together with academic staff, employers and students.

Methods: survey based on 9 criteria of the model, interviews

Scoring: classical scoring system.

Implementation approach: Project-oriented approach to the implementation of the EFQM model:

- I. Initiation phase – the project is defined as self-assessment procedure of university performance. Responsible unit at the university for realization of the project is Quality management department at the university.
- II. Planning phase – creation of the project team from representatives of university's and faculty's academic and non-academic staff.
- III. Implementation phase – coordination of self-assessment using tools such as surveys (developed by the project team based on criteria of the EFQM model), interviews, field studies.
- IV. Monitoring and performance of self-assessment analysis at the university
- V. Closing phase – preparation of self-assessment reports, identification of analysis on weak and strong sides of the university performance, development of improvement plan, setting of new objectives for elimination of drawbacks. Figure 22 - Phases of EFQM model implementation.

In this regard, in light of the excellence model, the creation of a project team to implement the EFQM model as a quality management tool is a great opportunity to reconsider and to redesign the content and function of current quality units.

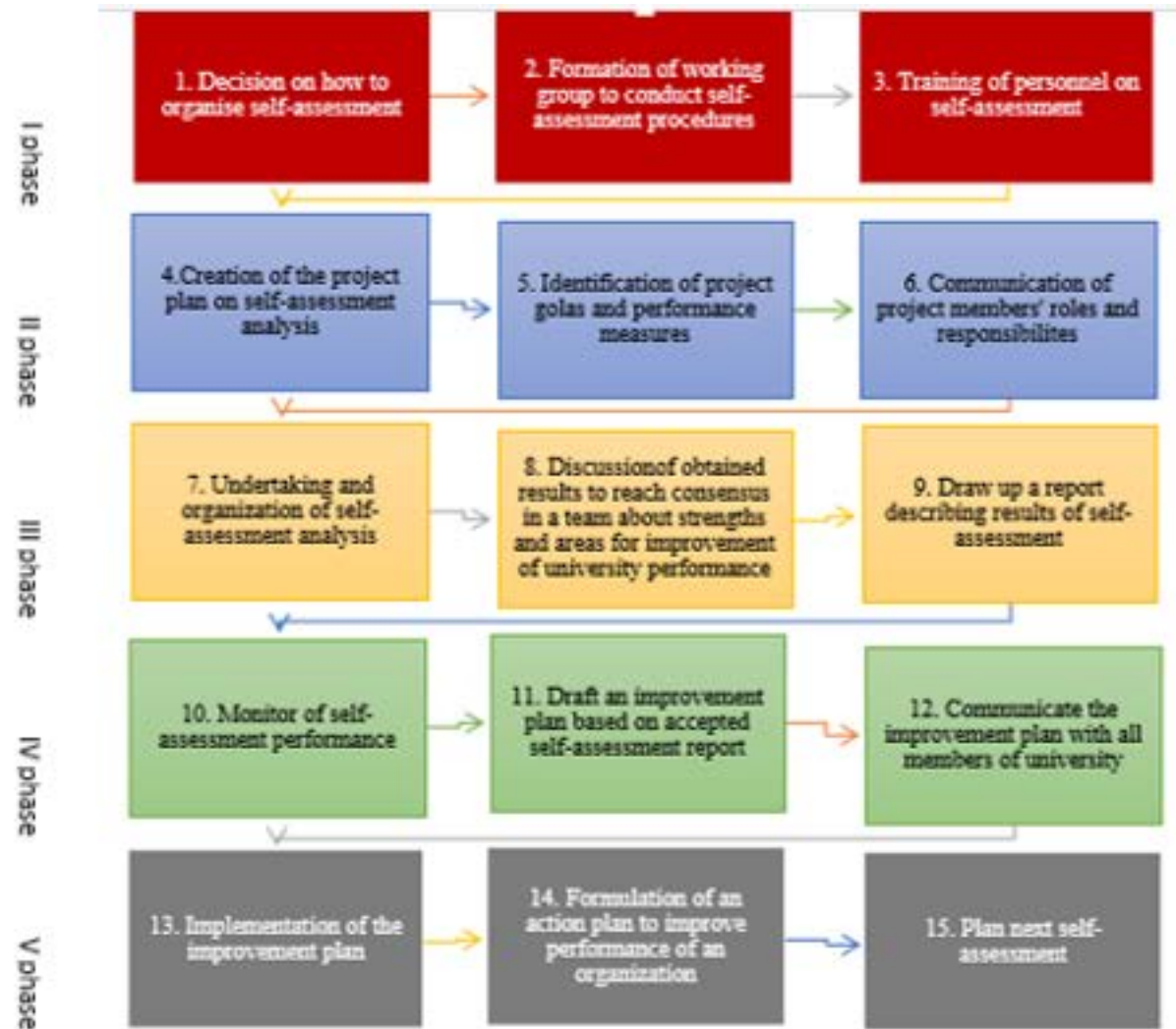


Figure 22 – Phases of EFQM model implementation

Note - developed by Author based on own research and Common Assessment Framework

### Key stages of implementing principles of the excellence model in university.

Self-assessment of university performance is carried out based on main 9 criteria of the EFQM model. Each criterion has sub criteria, which are assessed by the level of excellence. The level of excellence is defined by 5-scale assessment, which identify the level of university development. The mechanism of implementing the excellence model is based on university's internal self-assessment procedures, which consists of questions and criteria used by university management, working group or experts to identify the compliance of university activities with criteria of the excellence model.

Table 37 – Scoring method of EFQM model application: Enablers

Enablers					
				Evidence / Examples	
1	0-30	Inability to achieve	1	Do not know	No information is available. We are not active in this field.
2	31-50	Limited ability to achieve	2	Absolutely do not agree	Some weak evidence, related to some areas
3	51-70	Ability to achieve	3	Do not agree	Some evidence related to most areas
4	71-90	Comprehensive ability to achieve	4	Agree	Strong evidence related to all areas
5	90-100	Outstanding ability to achieve	5	Completely agree	Use of all potential and resources of university to achieve relevant targets. A continuous improvement cycle is on place.

Table 38 – Scoring method of EFQM model application: Results

		Results	Evidence / Examples
1	0-30	Do not know	No results are measured, no information is available.
2	31-50	Absolutely do not agree	Results are measured and show negative trends, results do not meet relevant targets.
3	51-70	Do not agree	Results show flat trends and only some relevant targets are met.
4	71-90	Agree	Results show substantial progress and all relevant targets are met.
5	90-100	Completely agree	Excellent and sustained results are achieved. All relevant targets are met. Positive trend of university development.

The sample of tables for scoring of EFQM application and obtained results has been provided in Appendix E. In the same manner the checklist for self-assessment of university performance based on the EFQM excellence model has been provided in Appendix F.

Despite existing drawbacks of the model discussed in the previous empirical studies related to complexity of administration processes such as lack of communication, knowledge and experience, as well as shortage of professional human resources and difficulties related to planning, monitoring, analysing and improving, Laurett and Mendes pointed out that successful and effective adoption of the EFQM

model in higher education depends on the existing quality culture of an organization, strong commitment of top management and on motivations of the whole organization for the excellence and for the whole quality improvement processes. Other key driving forces for successful implementation of the EFQM model highlighted in the literature is strong commitment of top management throughout different stages of the process, the effective commitment and collaboration of internal members of an institution, promotion of their professional development and training about quality management issues, sufficient communication and information systems, and external supportive environment.

Given these points, if we look at the entire organization considering four pillars of the university, proposed in our research thesis, the EFQM model will be the basis for quality improvement. Admittedly, the adopted EFQM model could be a solution for the improvement of quality management in higher education. As reported by Laurett and Mendes, the principles of the model are grounded on achievement of sustainable excellence, adding value for customers, development of organizational capability, promotion of creativity and innovation and success through talents of people.

Following continuous improvement tools, we designed our own tool for assessment of achieved results and for sustaining continuous improvement of institution's performance. The model has been developed based on principles of 'Radar Cycle' applied in the EFQM excellence model derived from Deming "PDCA" cycle. We attempted to identify the cycle of activities as an improvement tool of organization. The presented model is designed for annual implementation of university administration to assure continuous improvement. As stated before, the RADAR cycle (which stands for results, approach, deployment, assessment and review) of the model similar to the Deming cycle is an excellent approach for self-assessment procedures of organizations [298]. The peculiarity of the designed model in figure 23, is that it has been designed solely for higher education system. Besides, we believe that it is important to introduce a quality culture and to constantly improve it taking into consideration both cultural/psychological and structural/managerial elements of quality culture, to have real quality in higher education, as presented in our model.

Returning to the model interpretation, once the strategy and policy of university are set, we suppose that it is important to identify key procedures for planning, to have a plan for improvement through problem identification and idea proposal. It is worth to note that quality of education also depends on the quality of enrolled students and professional competencies of appointed academic staff. Equally important, investment of appropriate financial and technical resources to fulfilment of core missions of university is crucial as well. In our conceptual model, we labelled them as 'tangible assets' to make the process of planning more efficient. In the same manner, it is utmost important to consider 'intangible assets' of the university, which are - quality of designed degree programmes and their compliance with the needs of the labour market. The next phase of the model is implementation process of activities to respond to appropriate changes. Findings of our empirical study, presented in previous chapter, demonstrate that effective organization of internal governance is as important as core

missions of universities. We assume that organization of effective internal governance is the prerequisite for quality teaching and research in light of increasing accountability of the university and rising competition at the external environment. The harmony and the balance between teaching, research and administrative activities through development of effective internal governance is definitely a key solution for challenges of quality management in higher education. The following stage is regular monitoring of impact of changes on quality improvement and identification of new problems. It is obvious, that the role of external stakeholders in shaping the present and future position of universities at the educational and labour markets is vital. Thus, evaluation of university performance and its achievements through external quality assurance mechanisms is as important as organization of internal quality assurance procedures to respond to demands of external environment. Finally, identification of shortcomings, problems, and organization of activities and measures to eliminate the obtained gaps and to evaluate the achieved results are crucial for quality management. However, the important point to consider is closing-up the loop of the circle every time before turning to the first stage of the cycle “Plan” as required.

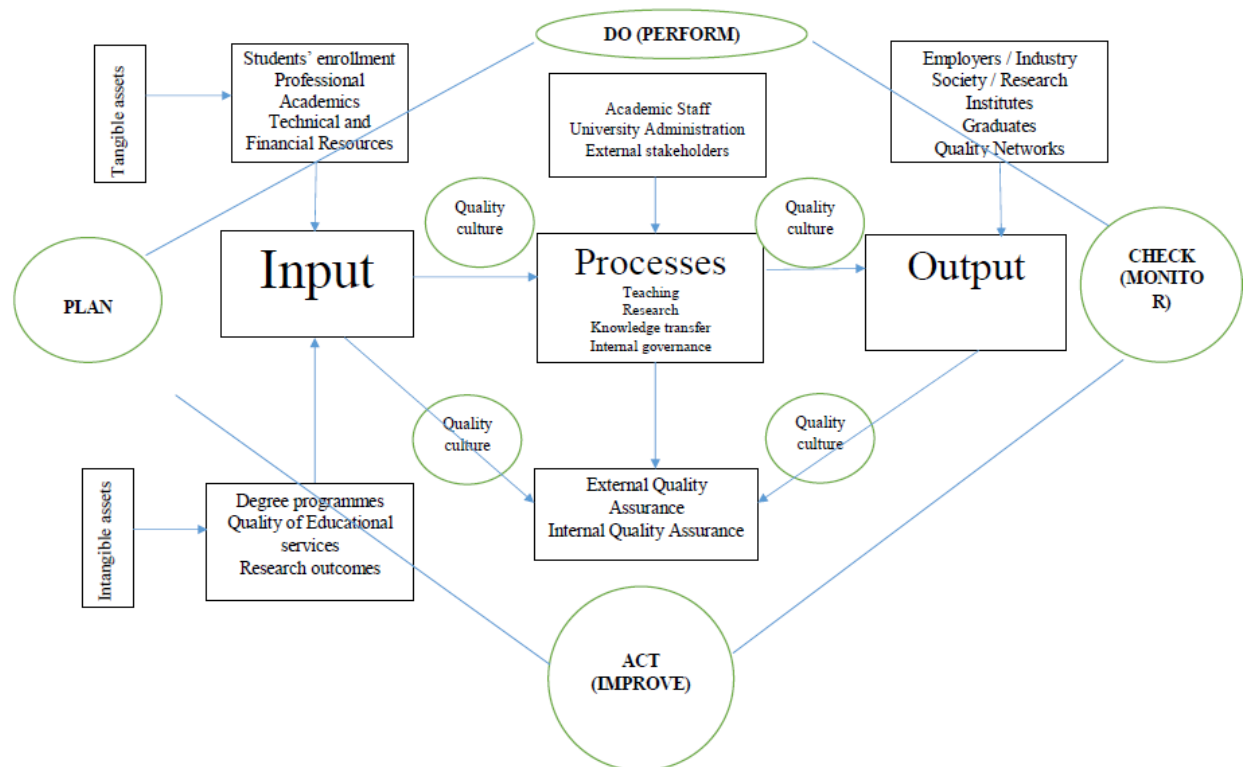


Figure 23 - Quality Management Model based on continuous improvement  
 Note – Author’s own research

*To summarize the theoretical and empirical studies on the implementation of the EFQM excellence model in higher education, we believe that the EFQM model is an effective quality management approach applicable in higher education, which brings more benefits in terms of development of environment and communication followed by quality and continuous improvement culture. In the same manner, the applicability of the EFQM model in higher education is that it concerns development of common improvement values, creation of favourable internal environment focusing on needs of*

*key internal and external stakeholders of the university, which in turn leads to high quality educational services. Evidently, the excellence model is an innovative quality management approach, which develops a team-based working environment and aim-oriented inner atmosphere within an institution.*



## CONCLUSION

1. The findings of the theoretical analysis of foreign and domestic literature have demonstrated the lack of unique definition to the concept 'quality in education'. From the various views on the concept of 'quality', it is hard to define quality from one single perspective, since quality encompasses all activities and stakeholders of the university. In addition, regarding the conceptualization of 'quality' in the regional literature, we have concluded that scholars define it in the context of student preparation, quality of study programmes, infrastructure, as well as quality of academic staff. The findings of research thesis have identified 'quality in education as a broad concept, defined depending on the gap between expectations and perceptions of key stakeholders in higher education'. The systematic analysis of the theoretical and empirical studies of the foreign literature has been the basis for the development of 'quality' definition from perspectives of different groups of stakeholders. The developed scheme of quality conceptualization is designed to university administration to proceed its realization annually for effective quality management.
2. In light of managerial and academic autonomy, a strong emphasis is put on the presence of external stakeholders in HEIs. As well as the active involvement of internal stakeholders in key decision-making processes of the university also plays a crucial role. Thus, the effective engagement of stakeholders in quality governance processes of universities is considerably essential for effective quality management. Therefore, the research thesis has identified key internal and external stakeholders of higher education. The innovativeness of the theoretical part of the dissertation is that the study has proposed 'students' as internal members (stakeholders) of university; in regard to external partners, 'graduates and accreditation agencies' have been identified as key stakeholders who also contribute and commit to quality education.
3. Based on the university evolution in Europe, the changing mission of universities has been analysed. Since the research has applied the elements of New Public Management and designed the adopted business quality management technique to develop a new quality tool applicable in higher education, the research has introduced a new mission of the university as the fourth, focused on improvement of internal management of the university to achieve high quality education, high quality research, and high quality output to the society and economy.
4. The shift of universities orientation to market-oriented has triggered the research to study the concept of quality management from perspectives of institutionalism. In light of institutional pressure on providing quality services and on maintaining competitiveness at the national and international markets, reconsideration of institutional approach to quality management is crucial. In this regard, the research has identified the reason for the introduction of quality management practices in Kazakhstan from perspectives of institutional isomorphism and has concluded that since each HEIs is a specific type of an

- organization with certain internal shared values and norms, development of quality management should not stem from coercive or mimetic types of isomorphism, rather it should emerge from normative isomorphism, which will consider the role of internal members of organization, professionals to enhance effectiveness of the whole structure to deliver quality educational services.
5. Introduction of new reforms and adaption of business-like management approaches in higher education undoubtedly will bring major challenges for HEIs in terms of internal management. One of the principles of NPM is creation of new management techniques and approaches to perform successfully and effectively main missions of university. Indeed, the focus is creation of new organizational structures and new forms of management different from the traditional one. In this context, the research thesis has evaluated key features of managerial approach - New Public Management in higher education and has identified the patterns of managerialism in higher education institutions of Kazakhstan.
  6. The types of university governance has been classified. Based on the classification of the university type governance, the study has revealed the mixed pattern governance in the national universities of Kazakhstan subject to transformation. The empirical findings demonstrate no balance between types of governance, but observe the positive tendency towards market-oriented approach. While general HE governance and financial governance is characterized by a common trend toward the market-oriented model, a less consistent picture of personnel autonomy is visible.
  7. The theoretical analysis of the dissertation has revealed the fact that internal organization of quality management in higher education has not been studied so far at the regional level. In light of reorganization reforms in Kazakhstani higher education institutions, the study of the internal governance of universities is crucial at the initial stage of transformation. Therefore, the research has designed the conceptual model of adaptive and flexible internal governance development in universities.
  8. The shortage of regional studies about improvement of quality management practices in higher education from perspectives of implementation of business quality tools in higher education sector through organization of internal governance of universities has been identified.
  9. The obtained findings enabled to identify main dimensions of internal governance and to propose the conceptual framework of Internal Governance development in the context of higher education.
  10. A series of recent studies has indicated that solely implementation of the quality dimensions and quality management methods from industry in higher education is not an effective approach, since a number of critical factors of business QM focus only on satisfaction of external stakeholders' demands. This suggests that the way and approach for quality management in higher education should be developed in a way so internal and external stakeholders' needs are encompassed leading to the unique goal of higher education institution development and

performance improvement. Since the peculiarity of the EFQM excellence model is that it does not follow 'one fit size', it focuses on changes and transformations for long-term sustainable future performance. Admittedly, the EFQM model is a globally recognized management tool, which helps organizations to manage change and to improve performance. Based on foreign literature, the research work rearranged some criteria of the EFQM model and developed it in the context of higher education, so it could be applied in higher education through adoption approach.

11. Finally, the research has analysed the already available excellence model EFQM and developed its adapted version applicable to higher education as a new quality management tool, which encompasses needs of both external and internal stakeholders of the university.

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## APPENDIX

### APPENDIX A

Table A.1 - A content analysis of research thesis

<i>Economic sciences</i>			
Candidate papers			
1	2	3	4
Author	Keywords	Content	Object
Frezorger (2004)	Economics of education, higher education, educational service market, educational services, human capital, management, marketing, innovation development of education, sustainable development of higher education	Object of study: human resources, higher education system, and market of educational services in Kazakhstan. Purpose: development of sustainability mechanisms of the higher school in the conditions of the market, globalization and innovative development. Higher professional education development in the context of sustainability. The study of development of regional university complex management, the concept of marketing activity; marketing communications management; financial and economic management of a regional university.	Vocational (professional) higher education at the regional level in Kazakhstan
Sultansharayeva (2006)	Economics of education, educational services, management of educational services, managers of education	The focus of research: The interconnection between HEIs and state governance system, management of educational services have been studied. The current state of the management of educational services in Kazakhstan is analysed, the factors affecting its development are identified. The concept of higher education educational services management has been developed based on the principles of innovation, system, comprehensiveness and adequacy. The university management model has been created. The structure of university management has been designed in align with realities of information economy.	HEIs in Kazakhstan
Dulatbekova (2006)	Market of educational services, Advertisement, Educational services, Economics of education	The term ‘advertisement’ in education market and the concept of educational services effectiveness have been introduced. Marketing research in the field of higher education market, customers’ attitude to advertisement of educational services of universities have been discussed. The image of HEIs structure has been proposed. The respond of the market to the advertisement has been structured via the model.	The role of advertising of educational services in the market
Uatayeva (2006)	Educational services, market, human capital, economics of education	The main focus: the content of educational services oriented to human capital. The demand in the education market, the interaction between university and labour market have been studied. Recommendations to enhance the impact of higher education on the process of economics have been proposed.	HEIs oriented to economic studies
Erniyazova (2006)	Financing of education, society-oriented economy.	The focus areas are the higher education system in the conditions of society-oriented economy of Kazakhstan, the economic mechanisms of higher education development, multi-channel oriented financing of education as an important approach of higher education modernization, the priority of higher education system modernization in the context of labour economy have been studied.	HEIs in Kazakhstan

Continuation of table A.1

1	2	3	4
Atygayeva (2007)	Higher education market, higher professional education, economics of education	The research focus on the higher professional education market, development of its effectiveness. The general forecasting scheme for graduates attraction, an assessment model of tuition fee and the institutional structure of the education market, taxation system, market-oriented activities of universities have been discussed.	Higher professional education in Kazakhstan
Gorzib (2007)	Education market, educational services, tuition fee	The improvement mechanisms of higher education management system at the macro and micro levels and the methods of financial opportunities expansion for the population in pursuit to high-quality educational services have been identified. The current state of national and foreign universities management have been studied.	State and private HEIs
Kanabekova (2007)	Educational services, education market, competitiveness, quality education	The main issues: The importance of regulating the market of educational services in accordance with international standards and the needs of the national economy, the assessment of higher education effectiveness have been studied. The concepts of "market of higher educational services", "educational service", "quality of educational services" have been defined. The role of education in economic growth, the criteria of assessment and competitiveness of the quality of education are defined. The stakeholder (consumer) monitoring and rating indicators have been defined. The improvement mechanisms of educational service market have been proposed.	HEIs in Kazakhstan
Abeldinov (2008)	Economy management, higher education	The main focus area: Development of systematic policy and the mechanisms of systemic management of higher education system development through the method of factor-oriented economy regulation. The interaction of the educational services market and the labor market has been justified. The transformation of "education" into a factor of economic growth has been proposed.	HEIs
Kunafina (2010)	Innovation technologies, educational process	The introduction of innovative technologies in the educational process. Recommendations to improve methods of innovation in higher education. Theoretical and practical recommendations to transfer higher education system into innovative development path.	HEIs in Kazakhstan
Auken (2009)	Education economics	A comparative analysis of education models in international practice. Economic efficiency of education in modern economic systems. The influence of globalization on education system. The concept of the education institute is proposed. The correlation dependence of the potential of education institution and quality of education on socio-economic development of the country has been studied. Development of a forecast model for development of education system.	Education system in Kazakhstan
Omurbayev (2009)	Education financing, finance management	The model of HEIs financing based on international practice and national peculiarities of education development. Development of financing mechanisms of HEIs based on project-oriented approach. Development of methodological approaches for HEIs financing based on improvement of expense planning. The introduction of the concept "financial autonomy" of HEIs in the context higher education market development. The financial conditions to improve quality of education has been determined in align with world education arena integration and harmony of education standards.	HEIs in Kazakhstan

Continuation of table A.1

1	2	3	4
Kuzhimov (2009)	Professional education	The economic content of professional education and the effectiveness of vocational education in a market economy. The features of methods of management, organization and financing of vocational education in the process of centralization and democratization have been identified. An assessment of the vocational education system and factors affecting reform have been studied. A model for the development of a vocational education system has been developed.	Professional education in Kazakhstan
Sadykov (2010)	Innovation, education system, Research and development	Theoretical characteristics of the innovative potential of the educational services market. Theoretical concepts about the role of scientific, technological and educational factors of economic growth. The assessment of the main trends in the development of quantitative and qualitative parameters of educational and innovative potential of Kazakhstan and its individual regions. Mechanisms to improve state support of innovative activities of the educational system in Kazakhstan, through the identification of priority areas of state scientific policy. Measures to increase the scientific and innovation potential of the higher education system based on integration with the research field. Recommendations to actively implement marketing research at all stages of innovative projects in the educational sector of Kazakhstan.	HEIs
Salimbayeva (2010)	Education economics, marketing in higher education	Development of marketing principles in the field of higher education, marketing development in the field of educational services. Transfer to market-oriented approach. The algorithm of the reorganization of the functional and structural organization of the university in accordance with the principles of marketing is proposed.	HEIs
Denisova (2010)	Process-oriented management, economy management, HEIs	The transfer from function-oriented to a process-oriented university management system. Identification of the economic, social, scientific and innovative, legal factors affecting development of the university management system. Practical recommendations to improve efficiency of management in higher education institutions. A model of process-oriented management of universities has been created. Development of mechanism for continuous improvement of the business process management system of universities.	HEIs
Murzabekova, S. (2010)	Innovation projects, management, higher education	The concept of "innovative project management in the educational sphere" has been developed. Effective methods to substantiate the priority of innovations in the field of education have been identified. The model of innovative development of educational projects is recommended in align with world experience. Development of innovative educational projects strategy, which allows to obtain an economic and social effect. Recommendations to improve state regulation on innovative educational projects in the context of modernization of the education system.	HEIs
Mazhitova S. (2010)	Human capital, higher education, labour market	The conceptualization of «human capital" in the context of interaction with "labor", "capital" and "entrepreneurship". The specific features of human capital in higher education are identified. The concept of "educational service" in relation to "human capital", "labor force" and "labor market. Practical recommendations to improve state regulation of the higher education system and measures to improve the quality of specialist training in a market economy.	HEIs
<i>PhD Theses</i>			
Abinova (2014)	Higher education, innovation, economy	The influence of innovative higher education on the economic growth of the country is substantiated based on the study of synergetic and personality-oriented education paradigms. Development of the model for the integration of higher education, science and business, which reflects functional interaction and the role of	HEIs

Continuation of table A.1

1	2	3	4
		the state in the innovative development of the economy. The factors and mechanisms of the influence of innovative higher education on the economic growth rates, necessity to improve country's socio-economic development. Recommendations on the development of innovative higher education, which contributes to the economic growth of the country. Development of the model of innovative development based on multiple regression, which reflects the degree of influence of system-forming factors of innovative higher education on the economic growth of Kazakhstan.	
An, A. (2014) “Economics”	Innovation, innovative activity	Universities involved in innovative activities are studied. The recommendations for organization of the interaction of education, science and industry in the country have been developed. The factors of development of education, science and industry have been determined. An organizational and economic mechanism for functioning of triple interaction has been created.	HEIs
Abylkasimova, Zh. (2015)	Labour market, educational services market, human capital	The labour market and the market of educational services in the context of industrial and innovative development of the economy have been studied. Development of interrelated economic and mathematical models to forecast the balance between supply and demand of specialists and professional and technical personnel. A mechanism to improve the interconnected development of labor markets and educational services has been proposed.	HEIs
Sarsembayeva, G. (2017) “Management”	Higher education system, institutional bases, management, strategic management	Development of a model of the dependence of scientific research. An expert assessment of the impact of internal and external factors on the development of scientific and educational activities of the university. Introduction of the concept “development strategy of innovation-oriented higher education institutions” and “SMART university”. Development of a mechanism for transforming a classical university into a research (innovation) one.	The higher education system of the Republic of Kazakhstan
Amankeldy, N. (2017) “Finance”	Higher education system financing, forecasting	Analysis of financing models for higher education and development of recommendations to improve the financial management of university resources. Application of AVM (Activity-Based Methodologies) in the management of university expenditures and models for forecasting the cost of educational services.	HEIs
Eralina, E.M.	Competitiveness, higher education system, innovation economy	Higher education system as a factor to increase the competitiveness of the economy and the development mechanisms to improve higher education and the innovation model in Kazakhstan on the basis of assessment of its development. Introduction of competitiveness indicators of higher education institutions in the light of the current economic development. Development of model for the integration of higher education, science and business taking into account Kazakhstani practice, which contributes to the innovative development of the economy. Proposal of improvement mechanisms of higher education system in the light of economic modernization.	the system of higher education of the Republic of Kazakhstan
<i>Education field</i>			
Candidate Papers			
Beibitov (1996)	higher education institutions, self-government activities	Self-government activities of higher educational institutions of Kazakhstan, its organizational and legal aspects. Criteria for development of an organizational structure and legal regulation of university self-government.	HEIs

Continuation of table A.1

1	2	3	4
Umirkbekova, Zh. (1998)	Management, higher education, modernization	The concepts "regional educational system", "education management". The criteria for the development of a regional education system are identified: differentiation of educational institutions; compliance of the learning results with educational standards; the growth of educational institutions; staff development and scientific and methodological support.	HEIs
Abdymanapov, S. (1999)	University education, modernization, effectiveness	The structural diversification of modern university education is analysed and the optimization of its levels is substantiated. A methodology (functions, macro principles, directions, innovative technologies) for university education improvement has been developed. Digitalization of education is necessity for modernization potential and enhancement of efficiency. A model of a block-rating system, an educational-methodical complex, a research center for education and marketing research were created. The effectiveness of the study is determined by the positive dynamics of innovation results in university education.	Karaganda State University
Nurmagambetov, A. (2003) Candidate of political sciences	Higher education system (political), education policy, digitalization of education	Object of study: the process of transformation and modernization of the higher education system, which is an integral part of the implementation of public policy. Purpose: formation and development of the RK policy in the field of higher education during the formation of a sovereign state. The analysis of the nature of the relationship and interaction of politics and education in the transition period. The study of the political factors in the education system. The analysis of the Western and Asian concepts of educational policy, the experience of the development of higher education in the republic. The study of the objective factors determining the essence, nature and orientation of innovations in higher education. The peculiarities of higher education system reforming processes. The features of digitalization in higher education and application of information technologies in the modern educational process.	Higher education system
Zhumadilova, A. (2004) Candidate of historical sciences	International relations, international market of education, integration of HEIs, education system	Development of international relations of sovereign Kazakhstan in the field of education. The experience, positive and negative aspects, new forms and directions of international cooperation. The analysis of materials on intergovernmental and inter-university agreements, and contracts concluded and implemented by Kazakhstan since state independence (1991-2001). The study of integration of educational institutions in the global education market. The concept of international relations development in the field of education is highlighted, discussion of strategic directions. The trends and prospects of international educational ties are outlined.	HEIS
Kashuk L.I. 2007 Candidate of economical sciences	Quality education, management of educational process, higher vocational education, education economics	Development of recommendations to improve the national quality assurance system of university activities in accordance with international standards. Identification of the factors affecting the quality management of university activities. Development of a mechanism to improve management of university attractiveness and algorithm for its socio-economic assessment. Study of the restructuring of external quality assessment of university activities and its adaptation to world experience.	
Dosybayeva G.K. 2009	Higher education	Study of the trends and characteristics of the US higher education system, competitiveness throughout the world educational space. Analysis of the features of the organization of the educational process in leading US universities, as well as the requirements for high-quality selection of teaching staff and students. The recommendations on the implementation of benefits (decentralization, academic freedom, multi-stage.	USA higher education system

Continuation of table A.1

1	2	3	4
		training of specialists, tax incentives, social security) of the US higher education system are scientifically substantiated, which will bring the quality of training of specialists in Kazakhstan closer to world standards	
Suleimenova G.N. 2009 Candidate of economic sciences	Quality of educational services, quality management	The conceptualization of "quality of education" and "educational service". Development of the mechanism of quality management of educational services. Justification of necessity for consumer monitoring and the use of quality assessments. Development of the model of quality management of educational services. Recommendations on the design and implementation of quality management systems in educational institutions.	
Minazheva G.S. 2010	Quality of higher education, quality management	Conceptualization of the essence and content of quality management system in universities. Development of the structural and functional model of quality management system in universities.	
<b>PhD theses</b>			
Satybaldiyeva A.S. 2013	Quality of higher education, higher education	The study of the process of modeling the effective quality management of higher professional education at the university. Development of the model of effective quality management of higher education based on humanitarian technologies. A methodology for higher school managers development.	
Smailova S.S. 2013	Educational process, quality management of education	Development of a comprehensive technology quality management of educational process that covers methods of monitoring, information and mathematical support for managerial decision-making in the field of higher professional education.	
Eleusov A.A. State and Local government	Quality education, education system, educational services	Development of recommendations to improve control in higher education system to provide the labor market with specialists who meet modern qualification requirements. The factors affecting the quality of higher education are identified. The analysis of the current control system of the educational services in Kazakhstan. Identification of problems of state control over the activities of universities, development of ways to improve the control system as a whole. A system of balanced scorecard is presented to evaluate the effectiveness of strategic planning of educational services.	
Aldabergenov a S.S. 2018	Quality, educational process	Development of scientific and pedagogical basis for quality assurance of the educational process in a university through a systematic approach. Conceptualization of the terms "quality of education and the educational process". The basic methods of quality management and quality assurance of higher education. Development of recommendation for quality assurance of educational process. Design of an elective course "Quality assurance of the educational process in the university". A certificate of state registration of the copyright object has been received for - "The monitoring programme of quality indicators of a university". The automated system "Programme for monitoring the quality indicators of a university" has been developed and implemented, which is a tool for monitoring the main indicators of higher education organizations. The textbook "Systematic Approach in Advanced Learning", a manual "Systematic approach to the educational process of a higher educational institution" was developed and published.	The educational process of a higher educational institution



Continuation of table A.1

<i>Organization and management</i>			
1	2	3	4
Bogun O.U. 2010	Leadership, human resource management	The concept of "leadership" is defined. The study of the psychological and cultural aspects of leadership. The analysis of determinants of effective leadership. Design of the course on the development of university management personnel through leadership.	
Aliyev U.Zh. 2018	Improvement of higher education management system, state management in higher education	Improvement of higher education management system: from theory to practice. The study of the system of higher education management in the Republic of Kazakhstan. The conceptualization of term "higher education system" in the context of human capital development, and the concept "higher education". The analysis of the concept of a higher education system as an object of management, its elements of development and support in organizational and economic conditions. The modern management models of higher education are considered and classified. The study of the current state of the higher education management system in the Republic of Kazakhstan. Development of mechanism to integrate education, science and industry. Recommendation to develop a mechanism for higher education system management, which deals with issues of graduate employment at the state and regional levels.	Higher education system in Kazakhstan
Baikenov Zh.E. 2019	Integration processes, higher education, academic mobility, internationalization of education, assessment of effectiveness, organizational-economic mechanism	Management of development and realization of organizational-economic mechanism to manage integration processes in the higher education system. Development of organizational and economic mechanism for managing integration processes in the global educational space, as well as the development of recommendations for its implementation in the higher education system of the Republic of Kazakhstan. The essence and the concept of the organizational and economic mechanism for integration management in higher education. Methods for assessment of organizational and economic mechanism for management of integration processes in HEIS.	higher education system of the Republic of Kazakhstan
Note – developed by Author based on own research			

## Appendix B

Table B.1 – Systematic analysis of data on “quality management’

Publication	Document type	Central issues	Times cited
1	2	3	4
<b>Quality assurance</b>			
Jumakulov, Z., et al. 2019	Article	University-industry collaboration, the role of higher education in State Programme of Industrial Innovative Development (2015-2019), internationalization of higher education	0
Kerimkulova, S. Kuzhabekova, A. 2017	Article	Quality assurance systems in Kazakhstan, discussion of challenges and approaches	0
Hejkrlik, J. et al. 2017	Proceedings paper	Discussion of Bologna principles implementation in Kazakhstani Agrarian HEIs	0
Kurmanov N. et al. 2016	Article (Bulletin)	Quality of human capital in higher education and measures to enhance intellectual potential as the basis for economic development.	0
Sultanova, G., Auken, V. 2016	Proceedings paper	Discussion of traditional (KPI, GPA) and new indicators to assess teachers’ performance and students’ achievements to increase the efficiency of HEIs.	0
Kerimkulaova, S. 2014.	Proceedings paper	External quality assurance, accreditation	0
Pak, N., Agbo, S. 2013.	Proceedings paper	English language policy in the light of state reforms in higher education	1
Kalanova, Sh. 2013	Proceedings paper	Quality assurance	0
<b>Quality management</b>			
Sultanova, G. et al. 2017.	Article	The assessment of graduates readiness and compliance to demands of employers through a newly introduced employability readiness indicator.	0
Taikulakova, G., Dussembaeva, G. 2015	Proceedings paper	Innovational education model in higher education using tools of Pareto’s Principle to develop criteria for student contingent formation and quality teaching	0
Abdrahman, G.K. et al. 2017	Article	The role of state in educational organization	0
Tulegenova, M. et al. 2019	Proceedings paper	The role of academic staff to ensure quality education. The emphasis on quality of teaching staff	0
Akhmetov, B. et al. 2012	Proceedings paper	The introduction of IT model for top management to improve quality of academic, educational, social and scientific activities of the university.	1

Continuation of table B.1

1	2	3	4
Nurakynova, S. 2018	Article	Strategic planning as an effective tool for higher education governance	1
Seidimbek, A. 2013	Proceedings paper	Discussion the first years of university management experience in Nazarbayev university	1
Mwinji, A. et al. 2015	Proceedings paper	Measurement of teaching effectiveness using e-assessment model.	0
Uvalieva, I. et al. 2014	Proceedings paper	Automation of decision support in the management of educational process	0
Lavrinenko, S.V. et al. 2020	Article	Strategic development and conceptual management in higher education	0
Toleubekova, R.K. 2019		Development of modern manager competencies in the field of higher education through master's degree programmes	0
<b>Quality education</b>			
Zhanguzhina, M. et al. 2018	Proceedings paper	Professional preparation of academic staff as an innovative approach to modernization of higher education	0
Tulegenova, M. et al. 2017	Proceedings paper	The role of contract and professionalism of academic staff to ensure quality education	0
Burkhanova, D. et al. 2016	Proceedings paper	Discussion of the Bologna Principles implementation in Kazakhstani higher education system	0
Uskenbayeva, R.K., et al. 2016	Proceedings paper	The role of IT to increase quality of engineering education	0
Tanabayeva, A. et al. 2015	Proceedings paper	Quality teaching staff as a prerequisite for quality education in the case of al-Farabi Kazakh National University	0
Erlaiyeva, A.E., Yanovskaya, O.A. 2012	Article	Personnel motivation of faculty staff as a central component of quality higher education	0
Zhakupova, A. 2011	Proceedings paper	The introduction of innovative technologies in higher education. the role of e-learning to ensure quality education and education management	0
Mussard, M., James, A. Papachen. 2017	Article	The credibility of global rankings (the Times Higher Education World University Rankings) about the quality of education	1
Abdiraiymova, G. et al. 2013	Proceedings paper	Study of students' satisfaction with quality of education	0
Abishev, N. et al. 2016.	Article	Higher education system in Russia and Kazakhstan in the light of the Bologna Declaration	2
Matthew, H. 2016	Article	Introduction of institutional autonomy to ensure quality education.	8

Continuation of table B.1

1	2	3	4
Praliyev S. 2013	Proceedings paper	Competence-based approach in students' learning to ensure quality education and to comply with the labour market needs.	0
<b>The Excellence model</b>			
We found 3 articles focused on university-industry-science interaction, research enhancement and development of self-education. Since no paper has been obtained related to university organization and quality management in universities, we didn't take them as granted			
<b>University governance</b>			
Sagintayeva, A., Gungor, D. 2016	Proceedings paper	Shared governance and autonomy of universities	0
<b>Internal management</b>			
Alibekova, G. et al. 2019	Article	Poor ecosystem of universities for commercialization and university-industry collaboration. Development of strategic policies based on human resources, financing, intellectual property management and infrastructure	0
<b>Organizational change</b>			
Mustafina, A. 2018	Proceedings paper	Identification of degree of university autonomy at joint-stock company type of HEIs. The results demonstrated low level of financial and managerial autonomy, and high level of staffing and academic autonomy. However, authors recommend revising regulatory frameworks to affect institutional governance and leadership.	0
Sagintayeva, A. 2013	Proceedings paper	The role of higher education leadership in the context of education reforms	0
<b>New Public Management</b>			
Monobayeva, A., Howard, C. 2019	Article	Review of existing studies on the implementation of New Public Management principles in post-Soviet countries, mainly in Kazakhstan in the context of the introduction of the Bologna principles in higher education sector. As well as authors discuss the reason why NPM reforms in the context of the Bologna principles have not succeeded.	5
<b>EFQM</b>			
N.Yskak. et al. 2018	Article	Validation of the EFQM model as a mechanism of quality assurance in higher education	0
Note – developed by Author based on own research			

## Appendix C

Table C.1 – Selection of samples for empirical research

HEIs transferring to non-profit organizations	QS World ranking 2020		QS University Rankings by Region: Emerging Europe and Central Asia		QS Graduate Employability Rankings		Programme Accreditation (number of accredited degree programmes) Source: enic-kazakhstan.kz. National Register of accredited degree programmes*	% of accreditation in foreign accreditation agencies	Institutional accreditation (source – EQAR Database)
1	2		3		4		5	6	7
27 higher education institutions (Table 1.)	207	al-Farabi Kazakh National University	18	al-Farabi Kazakh National University	251-300	al-Farabi Kazakh National University	al-Farabi Kazakh National University 240**	100 % (240)	ARQA
	418	L.N.Gumilev Eurasian National University (ENU)	51	L.N.Gumilev Eurasian National University (ENU)	-	-	L.N.Gumilev Eurasian National University (ENU) 177	31 % (55)	Independent Agency for Quality Assurance in Education 24.12.2018-22.12.2023
	491	Auezov South Kazakhstan State University	105	Abai Kazakh National Pedagogical University	-	-	Auezov South Kazakhstan State University - 161	14 % (23)	Independent Agency for Quality Assurance in Education 02.05.2018-28.04.2023
	561-570	Abai Kazakh National Pedagogical University	124	Auezov South Kazakhstan State University	-	-	E.A. Buketov Karaganda State University – 132	8 % (10)	Independent Agency for Quality Assurance in Education 02.04.2018-31.03.2023
	801-1000	E.A.Buketov Karaganda State University	151	E.A. Buketov Karaganda State University	-	-	Abai Kazakh National Pedagogical University 59	36 % (21)	Independent Agency for Quality Assurance in Education 10.06.2019-07.06.2024

Note – developed by Author based on own research

\* [https://enic-kazakhstan.kz/ru/accreditation/accredited\\_organizations](https://enic-kazakhstan.kz/ru/accreditation/accredited_organizations)

\*\*We could not get a percentage data about the programme accreditation at each university due to the latest changes in classification of degree programmes in 2019. Since HEIs developed new innovative and joint study programmes, the number of degree programmes registered in the “National Register of Degree programmes” has increased.

## Appendix D

Table D.1 - Results of the factor loading analysis

1 factor - Differentiation of functions and distribution of powers		
	Tested items	Factor loading
1	2	3
DFDP9	Ensuring staff development and professional training	,745
DFDP6	Decision-making processes are carried out open and transparently for all members of the organization	,722
DFDP7	Less bureaucracy and pressure during external quality assurance procedures (e.g. accreditation, ranking report fulfilment)	,705
DFDP8	Promotion and support for academic staff at all levels through tangible and intangible incentives	,691
DFDP3	The bottom-up approach in solving problems and identifying the weaknesses and strengths of an organization	,689
DFDP5	The rights and responsibilities of different actors are well-defined and clear.	,609
DFDP4	The clear design and the structure of the quality management	,594
DFDP2	Distribution of tasks effectively according to the professionalism and competence of unit members	,541
DFDP1	The balance between educational and administrative activities	,365
2 – Factor - Autonomy and cooperation		
CP4	Feeling of safety and care within an organization	,774
CP5	The feeling of support and motivation for achievement	,742
AA1	Availability of more academic freedom for teaching and research	,738
AA2	University administration openness to initiatives and innovations from academic staff	,701
AA3	Academic staff engagement in decision-making processes	,634
AA4	Effective management of workload between administrative, research and teaching activities	,575
CP6	University management proactively attracts and retains high-quality staff	,558
3 – Factor - Quality culture		
QC1	The feeling of responsibility within an organization for quality education	,712
QC3	Enhancement of joint commitment of internal and external stakeholders to quality assurance (e.g. accreditation)	,655
QC4	University administration support and reward for quality achievement, rather than quantity	,645
QC5	There are clear procedures and processes to define, measure, evaluate and enhance quality	,634
QC6	University administration trusts on academic staff / Academic Staff trusts on university administration	,605
QC7	There is a closed feedback loop in external and internal quality assurance mechanisms	,585
QC2	The common shared interest and values among university members (including faculty staff) to provide quality educational services	,566
QC8	There is a quality assurance office at the central level	,497
4 – Factor – Commitment of stakeholders in quality assurance procedures		
DFDP4	The clear design and the structure of the quality management	,482
QC3	Enhancement of joint commitment of internal and external stakeholders to quality assurance (e.g. accreditation)	,403
CP2	Engagement of external stakeholders in quality assurance procedures	,727
QC9	There is a quality assurance committee at the faculty level	,666
QC8	There is a quality assurance office at the central level	,622
CP3	Engagement of internal members in quality assurance procedures	,606

Continuation of table D.1

1	2	3
CP1	Development of effective approaches to involve internal members in internal governance at the institutional level	,596
AA5	Accountability to the government and society through external quality assurance mechanisms without undermining the academic staff freedom	,503
SDG4	Monitoring of goal achievement according to the strategic objectives and planning	,459
5 – Factor - Strategic development and governance		
SDG2	Development of planning procedures with academic staff involvement	,776
SDG1	Development of mission and strategic objectives in alignment with the needs of the labour market	,704
SDG5	Competence and ability of university administration to make decisions for effective implementation of a strategy	,658
SDG3	Engagement of external stakeholders in the strategy development process	,574
SDG4	Monitoring of goal achievement according to the strategic objectives and planning	,542
Note – Author’s own mathematical analysis		

## Appendix E

Table E.1 – Scoring System of the EFQM model

ENABLERS						
<b>Criteria 1 – LEADERSHIP</b>						
	Score	5	4	3	2	1
		90-100	71-90	51-70	31-50	0-30
1a	<i>Development of the mission, vision, values by leaders</i>					
1b	<i>Leaders commitment to define, monitor and drive improvement of the organization's management and performance</i>					
1c	<i>Leaders engage with external stakeholders to know their expectations and opinions</i>					
1d	<i>Leaders reinforce a culture of quality with internal stakeholders</i>					
1e	<i>Leaders ensure the flexibility and manages change effectively</i>					
FINDINGS						
STRENGTHTHS				AREAS FOR IMPROVEMENT		

### **Criteria 2 – POLICY AND STRATEGY**

	Score	5	4	3	2	1
		90-100	71-90	51-70	31-50	0-30
2a	<i>The development and update of university policies and strategies cover needs and expectations of all stakeholders</i>					
2b	<i>Strategy is based on internal performance and capabilities of the university</i>					
2c	<i>Policy and strategies are developed, reviewed and updated in compliance with changing environment</i>					
2d	<i>University has a procedure aimed at realization of university policies and strategies through short term plans</i>					
FINDINGS						
STRENGTHTHS				AREAS FOR IMPROVEMENT		

### **Criteria 3 – PEOPLE MANAGEMENT (internal stakeholders: academic staff, non-academic staff, students)**

	Sub criteria	5	4	3	2	1
3a	<i>The vision and objectives of academic staff align with university's strategy.</i>					
3b	<i>Professional development and training of academic staff</i>					
3c	<i>Engagement of academic staff in decision-making processes</i>					
3d	<i>Academic staff communicate effectively throughout university</i>					
3e	<i>Recognition, rewarding of academic staff for quality achievements</i>					
FINDINGS						
STRENGTHTHS				AREAS FOR IMPROVEMENT		

### **Criteria 4 – PARTNERSHIPS AND RESOURCES (cooperation with domestic and foreign institutions, research institutes, business sector) and resources (financial and technical)**

	Sub criteria	5	4	3	2	1
4a	<i>Establishment of partnerships with suppliers for university performance</i>					
4b	<i>Management of financial resources accordingly</i>					
4c	<i>Management of infrastructure and technical resources</i>					
4d	<i>Technology management</i>					
4e	<i>Information and knowledge management</i>					
FINDINGS						
STRENGTHTHS				AREAS FOR IMPROVEMENT		



**Criteria 5 – PROCESS AND PRODUCTS: Academic, research processes, internal governance. Degree programmes, R&D, Research outputs**

	Sub criteria	5	4	3	2	1
5a	Teaching processes					
5b	Research processes					
5c	Commercialization of university knowledge					
5d	Management processes					
<b>FINDINGS</b>						
STRENGTHTHS				AREAS FOR IMPROVEMENT		

**RESULTS**

**Criteria 6 - CUSTOMER RESULTS: Employers, Society Satisfaction**

	Sub criteria	5	4	3	2	1
6a	Perception measurement					
6b	Performance measurement					
<b>FINDINGS</b>						
STRENGTHTHS				AREAS FOR IMPROVEMENT		

**Criteria 7 – PEOPLE RESULTS: Internal stakeholders satisfaction and Professional Development**

	Sub criteria	5	4	3	2	1
7a	Perception measurement					
7b	Performance measurement					
<b>FINDINGS</b>						
STRENGTHTHS				AREAS FOR IMPROVEMENT		

**Criteria 8 – SOCIETY RESULTS: Commercialization, Graduate employment**

	Sub criteria	5	4	3	2	1
8a	Perception measurement					
8b	Performance measurement					
<b>FINDINGS</b>						
STRENGTHTHS				AREAS FOR IMPROVEMENT		

**Criteria 9 – KEY RESULTS: Quality research outputs, quality education, R&D**

	Sub criteria	5	4	3	2	1
9a	Perception measurement					
	Mechanism on key results of university					
	Financial results					
	Position in Rankings					
	International and programme accreditation					
9b	Performance measurement					
	Position in Rankings					
<b>FINDINGS</b>						
STRENGTHTHS				AREAS FOR IMPROVEMENT		

## Appendix F

Table F.1 – The EFQM model checklist for self-assessment - Enablers

Enablers		Guiding Questions	Score / Remark
<i>I</i>		<i>LEADERSHIP</i>	
1	2	3	4
1a.	Development of the mission, vision, values by leaders	<ul style="list-style-type: none"> <li>- Do the university leaders involve relevant stakeholders to develop mission, vision and values of university?</li> <li>- Do leaders ensure that mission, vision and values are in line with local, national and international strategies?</li> <li>- Do leaders ensure the compliance of mission and vision with demands of the labour market?</li> <li>- Do leaders ensure the revision of the mission, vision, values and strategies of university periodically to reflect changes in the external environment</li> <li>- Do leaders prepare university for challenges of digital transformation</li> </ul>	
1b	Leaders commitment to define, monitor and drive the improvement of the organization's management and performance	<ul style="list-style-type: none"> <li>- Do leaders define appropriate managerial structures and processes for effective performance of university?</li> <li>- Do leaders ensure allocation of responsibilities and functions of units depending on competencies and professional skills of academic and non-academic staff?</li> <li>- Do leaders promote continuous improvement of university performance in accordance with needs and expectations of employers and society?</li> <li>- Do leaders promote favourable internal environment through good internal governance within university?</li> <li>- Do leaders develop a management system, which hinders corruption and unethical behaviour?</li> <li>- Are leaders open and welcome new innovation, initiatives and new managerial practices to enhance performance of university</li> </ul>	
1c	Leaders engage with external stakeholders to know their expectations and opinions	<ul style="list-style-type: none"> <li>- Do leaders analyse and monitor expectations and demands of stakeholders? How?</li> <li>- Do leaders manage partnerships with important stakeholders (employers, society)? How?</li> <li>- Do leaders focus on reputation of university through transparent and quantitative indicators?</li> <li>- What is the role of university in public community and country?</li> <li>- What is the interaction of university with international partners?</li> <li>- What is the position of the university at national and international rankings?</li> <li>- Do university management allocate all financial and non-financial resources on realization of the third mission of universities?</li> </ul>	
1d	Leaders reinforce a culture of quality with internal stakeholders	<ul style="list-style-type: none"> <li>- Do leaders promote good internal governance within organization?</li> <li>- What type of communication between university management and academic staff at the university?</li> <li>- Is there feedback system focused on needs of internal stakeholders?</li> <li>- Do university management regularly analyse results of survey among academic staff and students?</li> <li>- Do leaders encourage students' and staff's involvement in the improvement and decision-making procedures? How?</li> <li>- Do leaders promote a culture of mutual trust between with academic and non-academic staff with proactive measures to counter any kind of discrimination, encouraging equal opportunities and addressing individual needs and personal circumstances?</li> <li>- Do leaders support and encourage academic staff for their commitment to quality? How?</li> </ul>	

Continuation of table F.1

1	2	3	4
1e	Leaders ensure the flexibility and manages change effectively	<ul style="list-style-type: none"> <li>- Does university react to changes of external environment accordingly? How?</li> <li>- Does university conduct marketing studies about expectations of external environment? How?</li> <li>- What are research methods for study of changes in external and internal environment?</li> <li>- Are stakeholders involved in evaluation of university's performance?</li> <li>- How necessary changes are defined? And how process of changes is managed?</li> </ul>	
<i>II</i>	<i>POLICY AND STRATEGY</i>		
2a	The development and update of university policies and strategies cover needs and expectations of all stakeholders	<ul style="list-style-type: none"> <li>- Do development of policies and strategies align with needs and expectations of relevant stakeholders?</li> <li>- Are policies and strategies updated in accordance with changing environment?</li> <li>- Do policies and strategies have short-term running plans?</li> <li>- How is the content of policies and strategies updated and revised in accordance with needs of external environment?</li> <li>- Do strategies cover expectations and needs of stakeholders?</li> <li>- Are relevant stakeholders engaged in development of policies and strategies?</li> <li>- Is there any structural unit at the university dealing with study of needs of stakeholders?</li> </ul>	
2b	Strategy is based on internal performance and capabilities of the university	<ul style="list-style-type: none"> <li>- Does university Involve internal stakeholders and use information about their differentiated needs and views to develop strategies and plans?</li> <li>- Does university conduct monitoring and analysis of university strategy realization?</li> <li>- Does university engage academic and non-academic staff in development of policies and strategies? How?</li> <li>- Does university management consider knowledge and professional competencies of internal staff in developing strategies?</li> <li>- Does university management use all technical and non-technical resources to realize policy and strategies?</li> <li>- Does university management implement systems for generating creative ideas and encourage innovative proposals from employees and stakeholders at all levels supporting realization of policy and strategies?</li> </ul>	
2c	Policy and strategies are developed, reviewed and updated in compliance with changing environment	<ul style="list-style-type: none"> <li>- Are policies and strategies in line with university mission and vision?</li> <li>- How often are policies and strategies are reviewed and updated?</li> <li>- How does university management identify the compliance of university policy and strategies with expectations of changing environment?</li> <li>- Is there a procedure for regular monitoring and revision of university policy and strategies?</li> <li>- How strategy and supporting policies are communicated, implemented and monitored?</li> </ul>	
2d	University has a procedure aimed at realization of university policies and strategies through short term plans	<ul style="list-style-type: none"> <li>- Does university management implement strategy through development of relevant plans, tasks and targets for units and staff?</li> <li>- Does university develop plans and programmes with targets and results for each organisational unit with indicators for the expected results.</li> <li>- Is there structural unit responsible for monitoring and analysis of information on main processes of university?</li> <li>- Does university communicate strategies, performance plans and intended results internally and to all relevant stakeholders.</li> <li>- Does university monitor and evaluate its performance regularly at all levels (departments, functions, organisational units) to control efficiency, effectiveness and implementation levels of strategies?</li> </ul>	

Continuation of table F.1

3	<i>PEOPLE MANAGEMENT (INTERNAL STAKEHOLDERS: ACADEMIC STAFF, NON-ACADEMIC STAFF, STUDENTS)</i>		
1	2	3	4
3a	The vision and objectives of academic staff align with university's strategy.	<ul style="list-style-type: none"> <li>- Does university management analyse the current and future needs of academic and non-academic staff in line with university strategy?</li> <li>- Is there a transparent policy on recruitment, promotion, development, delegation of responsibilities, rewards for achievements of staff in accordance with university's strategy?</li> <li>- Does university consider and develop necessary competencies and capabilities of staff for realization of its strategy?</li> </ul>	
3b	Professional development and training of staff	<ul style="list-style-type: none"> <li>- Is there a human resource development policy/ plan focused on identification of current and future knowledge, competencies and professional skills of academic and non-academic staff?</li> <li>- Is there identification of staff's present and future needs in relation to their knowledge, competencies and skills?</li> <li>- Does university management attract and develop talented and professional staff to achieve its mission and strategy?</li> <li>- Does university promote new innovative forms of learning for professional development of staff?</li> <li>- Does university promote engagement of academic staff in decision-making and improvement processes?</li> <li>- Does university evaluate staff performance and their commitment to quality?</li> <li>- Does university ensure practices of the best experience-change among academic staff?</li> <li>- Does university develop favourable internal environment for development of staff in terms of teaching and research</li> </ul>	
3c	Engagement of academic staff in decision-making processes	<ul style="list-style-type: none"> <li>- Is there people involvement on decision-making and improvement processes?</li> <li>- Does university control workload of academic staff from administrative perspective?</li> <li>- Does university management promote culture of open communication and transparency?</li> <li>- How is people commitment to decision-making and improvement processes realized? What are mechanisms?</li> <li>- Does university encourage teamwork?</li> <li>- Are there any systems for gathering and discussing of suggestions and innovative ideas from staff?</li> <li>- Does university conduct staff surveys on a regular basis; provide feedback and analysis on results and improvement activities?</li> <li>- Is there a system of motivation for staff's commitment to quality improvement and involvement in the improvement actions?</li> </ul>	
3d	Academic staff communicate effectively throughout university	<ul style="list-style-type: none"> <li>- Is there cooperation and dialogue between university management and staff for innovation, creativity, and suggestions for performance improvement?</li> <li>- Is there any feedback system or channels about satisfaction level of staff on working environment?</li> <li>- Does university conduct surveys about staff satisfaction and analyse the obtained results with measures for elimination of drawbacks?</li> <li>- How the obtained results from surveys, studies are employed for enhancement of university policy, strategy and development plans?</li> </ul>	

Continuation of table F.1

1	2	3	4
3e	Recognition, rewarding of academic staff for quality achievements	<ul style="list-style-type: none"> <li>- Are there any schemes or programmes on rewarding, recognition of staff achievement financially and non-financially?</li> <li>- How is staff's recommendations and wishes to improve quality of working environment considered?</li> <li>- Does university management ensure good environmental conditions throughout organizations and care about needs and well-being of staff?</li> <li>- Is there a system of recognition and rewarding academic staff for their commitment to quality and contribution to achievement of university goals?</li> <li>- How is the best practices of teaching and research activities of academic staff recognized?</li> </ul>	
4	<i>PARTNERSHIPS AND RESOURCES</i>		
4a	Establishment of partnerships with suppliers for university performance	<ul style="list-style-type: none"> <li>- Does university develop common view and shared interest of partners and university to generate value and mutual benefits</li> <li>- Is there a system for enhancement of cooperation and partnerships with potential stakeholders and partners?</li> <li>- How does university identify the policy of partnership with external environment? Is it customer-oriented?</li> <li>- What is the impact of partnerships on quality improvement and university development?</li> <li>- Is there any structural unit at university, which develops, coordinates and monitors mutual partnerships with external stakeholders for quality teaching, research and commitment to society?</li> <li>- Is there any evidence of favourable partnerships?</li> <li>- Is there any feedback system about identification of needs and expectations of stakeholders?</li> <li>- How engagement of external partners in quality improvement and university management processes is realized?</li> <li>- What is the role of partnerships in developing university policy and strategy?</li> <li>- Who are partners? What aims do they follow? What mutual benefits do university and partners gain from cooperation?</li> <li>- What are results of partnerships?</li> </ul>	
4b	Management of financial resources	<ul style="list-style-type: none"> <li>- Is there well-documented system for management of financial resources?</li> <li>- Does university have financial autonomy to achieve its mission, policy and strategy?</li> <li>- Allocation of resources for professional and personal development of staff and students.</li> <li>- Appropriate financing programmes for development of university's policy, strategy and continuous improvement actions</li> <li>- Does university have a plan for financial management?</li> <li>- Is financial capability of the university sufficient to achieve its goals?</li> <li>- What are main financial resources?</li> </ul>	
4c	Management of infrastructure and technical resources	<ul style="list-style-type: none"> <li>- Is there a well-documented policy on management of infrastructure?</li> <li>- Improvement of technical resources in align with needs of internal members and requirements of accreditation agencies. Does university ensure effective, efficient and sustainable provision and maintenance of all facilities for staff and students?</li> <li>- Does university provide effective working conditions for academic and non-academic staff to achieve its results?</li> <li>- Does infrastructure provide good conditions for learning, teaching and research?</li> <li>- Does university regularly evaluate, monitor and improve conditions of infrastructure? How the process of technical resources is managed?</li> </ul>	

Continuation of table F.1

1	2	3	4
4d.	Technology management	<ul style="list-style-type: none"> <li>- Is technology managed in an way to support the delivery of strategy and quality education</li> <li>- Is management of ICT and other technologies efficient and sustainable to support strategic and operational goals of university? Is there a clear vision and policy of technology management?</li> <li>- Does technology management integrate university’s strategy to satisfy needs and expectations of staff, employers and students?</li> <li>- Does university seek for new technologies relevant for the best performance of university’s activities and achievement of its mission?</li> <li>- Does existing technology support creativity, innovation, collaboration and participation?</li> <li>- Does university evaluate, monitor the impact of ICT on quality of education and compliance with needs and expectations of stakeholders?</li> <li>- Does system of ICT management analysed and improved on a regular basis to meet expectations of stakeholders?</li> </ul>	
4e	Information and knowledge management	<ul style="list-style-type: none"> <li>- How the process of information and knowledge management is organized?</li> <li>- Are information and knowledge managed sufficiently to support effective decision-making and to assure quality education?</li> <li>- Does university apply opportunity of digital transformation to achieve its results and enhance performance indicators?</li> <li>- Does university have a well-documented system for knowledge and information management applied for achievement of university goals?</li> <li>- Does university develop internal channels to ensure that all staff have access to relevant knowledge and information?</li> <li>- Does university promote knowledge transfer between people within university?</li> <li>- Does university employ knowledge and information management to meet needs and expectations of external stakeholders? How?</li> <li>- Is there unique automated information system to manage, control and monitor educational process, quality of degree programmes, to support marketing studies about demands at labour market through unique national information database?</li> <li>- Does existing information technologies support quality teaching and research?</li> <li>- Does existing information database ensure improvement of quality?</li> </ul>	
5	<i>PROCESSES</i>		
5a	Teaching processes	<ul style="list-style-type: none"> <li>- Does university ensure improvement of teaching processes to meet employers’, students’ and society’s needs? How?</li> <li>- Are there innovative and student-oriented teaching methods?</li> <li>- Is there a process for evaluation of teaching quality with closing loop cycle?</li> <li>- Are there any mechanism to involve external stakeholders in assessment and evaluation of quality of education?</li> <li>- Does university conduct marketing studies about current trend and demands of labour market in developing degree programmes?</li> <li>- Are there systematic processes designed to attract all stakeholders in the process of programme development?</li> <li>- Does university use customer surveys, complaint management procedures and other forms of feedback to identify potentials for optimising processes, products and services?</li> <li>- Does university design and update of degree programmes to meet needs of the changing environment?</li> </ul>	

Continuation of table F.1

1	2	3	4
5b	Research processes	<ul style="list-style-type: none"> <li>- Does university support processes enabling academic staff to balance teaching and research?</li> <li>- Does university ensure favourable conditions for academic staff to conduct research and integrate its results in teaching?</li> <li>- Does university conduct marketing studies about current trend and demands of labour market in developing degree programmes?</li> <li>- Does university support academic freedom of research?</li> <li>- Are there any effectiveness indicators about research activities of academic staff?</li> <li>- Are there sufficient financial and non-financial resources for scholars to do research?</li> <li>- What is the level of student engagement in research processes?</li> <li>- Is there a development programme of university as a research type?</li> <li>- Are there any rewarding and recognition measures for academic staff for their best achievements in research?</li> <li>- Are there any indicators/mechanisms to analyse university's performance on research, to evaluate outputs of research and knowledge transmission?</li> <li>- Does university manage, evaluate and improve research processes to meet employers', students' and society's needs? How?</li> <li>- Are there any development programmes on improvement of quality of education and educational services?</li> </ul>	
5c	Commercialization of university knowledge	<ul style="list-style-type: none"> <li>- Does university develop degree programmes with special focus on regional and national needs?</li> <li>- Are their patent consultations?</li> <li>- Does university have close interaction with business and other public organizations on delivery of quality product to society?</li> <li>- Does university conduct marketing studies about needs and requirements of external environment, trends and practices of foreign researchers?</li> <li>- Do university' research outputs contribute to development of local and national economy? How?</li> <li>- Does university commercialize its research output? How?</li> <li>- How does university analyse effectiveness of research activities?</li> <li>- What is university's collaboration with other sectors of society?</li> <li>- Does university evaluate social, cultural, environmental and economic returns of research outputs?</li> <li>- Does university support collaboration with external environment to meet expectations and needs of the society through scientific investigation</li> </ul>	

Continuation of table F.1

1	2	3	4
5d	Management processes	<ul style="list-style-type: none"> <li>- Does processes interconnect and interrelate with each other to achieve university goals?</li> <li>- Does university monitor and promote result-oriented processes?</li> <li>- Does existing Quality Management System (CMK) work effectively and properly, not formally and in a written form?</li> <li>- Do processes match needs and expectations of employees and relevant stakeholders on a regular basis?</li> <li>- Does university ensure processes support strategic goals and monitor processes are planned and managed, allocating resources accordingly?</li> <li>- Do processes ensure distribution of tasks and responsibilities accordingly depending on knowledge, skills and competencies of staff?</li> <li>- Does university analyse and evaluate processes, risks and critical success factors regularly, taking into consideration the changing environment?</li> <li>- Does university support innovative approaches to management of processes within university?</li> <li>- Does university follow the radar cycle for each process to achieve desired outcome?</li> <li>- Does university organize effective internal governance to respond to external environment?(accountability and quality assurance mechanisms)</li> <li>- Are there any mechanism to improve internal governance of university to meet needs and expectation of university members?</li> <li>- Does university have internal quality assurance guidelines?</li> <li>- Does university support all existing factors of internal governance development to satisfy needs of academic and non-academic staff in delivering quality education and research?</li> </ul>	



Table F.2 – The EFQM model checklist for self-assessment - Results

Results		Guiding Questions	Score / remark
6	<i>CUSTOMER RESULTS – GRADUATES, EMPLOYERS, SOCIETY</i>		
1	2	3	4
6a	Perception results	<ul style="list-style-type: none"> <li>- Mechanisms on identification of stakeholders’ satisfaction</li> <li>- Employer’s satisfaction with graduates</li> <li>- What instruments university apply to evaluate perception and satisfaction level of external stakeholders?</li> <li>- How often does monitoring and evaluation of stakeholders’ perception take place?</li> <li>- Are there any indicators to assess perception and satisfaction level of each stakeholder: graduates, employers and society?</li> <li>- Are there marketing studies and monitoring processes on identification and evaluation of perceptions and satisfaction of external environment? How results processed?</li> <li>- Are there any instruments developed to identify needs and expectations of each stakeholder?</li> <li>- Do university ensure involvement of stakeholders in the process of discussions and decision-making on obtained results about stakeholders’ perception?</li> <li>- What is an impact and contribution of studies about stakeholders’ perception and satisfaction in delivering quality products and realizing university’ strategic goals?</li> <li>- Does university management consider results of marketing studies and surveys about perceptions of external stakeholders in developing and updating university strategy?</li> <li>- How does university define its achievement of goals on meeting needs and expectations of stakeholders?</li> <li>- Are there any evidences about perception and satisfaction level of stakeholders about university’ performance in delivering quality products and services?</li> <li>- Are there any associations or organizations of university consisting with representatives of graduates, employers and society in dealing with issues of quality and compliance with expectations of stakeholders?</li> <li>- How does university identify and evaluate contribution of stakeholders in development and improvement of university activities?</li> <li>- What is the overall image and public reputation of university?</li> <li>- How does university asses accessibility of university to population?</li> <li>- Is university transparent and open enough in providing information about its performance?</li> <li>- Are there any measures to identify and assess general trust of society?</li> <li>- Feedback management and control for continuous improvement</li> </ul>	

Continuation of table F.2

1	2	3	4
6b	Performance results	<ul style="list-style-type: none"> <li>- University's position on national and international rankings?</li> <li>- The number of graduates employed after graduation. Successful employment of graduates</li> <li>- Satisfaction level of graduates with quality of education and services according to results of surveys and focus groups.</li> <li>- Number of partners from industry collaborating with university to produce quality, competitive and professional specialists.</li> <li>- Number of agreements with business sector on student preparation, internship organization and experience-exchange programmes.</li> <li>- Number of degree programmes developed with involvement of graduates and employers.</li> <li>- Level of research output commercialization to fulfil needs of local and national economy.</li> <li>- Number of research projects.</li> <li>- Results of evaluation measures regarding graduate satisfaction with quality of teaching and services, employers' satisfaction with quality of graduates.</li> <li>- Extent of involvement of stakeholders in the design and the delivery of services and products and/or decision-making processes;</li> <li>- Number of suggestions received and implemented</li> <li>- Number of enrolled students</li> <li>- Graduate employment rate</li> </ul>	
7	<i>PEOPLE RESULTS</i>		
7a	Perception results	<ul style="list-style-type: none"> <li>- Mechanisms on identification of academic staff and students' satisfaction</li> <li>- Mechanisms for development of efficient internal governance</li> <li>- Tangible and intangible incentives for academic staff motivation</li> <li>- Promotion of less administrative workload</li> <li>- Promotion of more opportunities for research and teaching of academic staff</li> <li>- Does university systematically measure academic staff perception of working environment, quality and services the university provides to them?</li> <li>- Are there any instruments or measurement tools developed to identify needs and expectations of people?</li> <li>- Do university ensure involvement of academic staff in decision making processes and improvement activities?</li> <li>- Do university discuss with academic staff results of surveys and interviews about their perception?</li> <li>- What is an impact and contribution of studies about people's perception and satisfaction in delivering quality products and realizing university' strategic goals?</li> <li>- Does university management consider results of marketing studies and surveys about perceptions of academic staff in developing and updating university strategy?</li> <li>- How does university define its achievement of goals on meeting needs and expectations of people?</li> <li>- Are there any evidences about perception and satisfaction level of academic staff about working environment and academic freedom?</li> <li>- Are there any committees or units at university dealing with, evaluating, analysing complains and problems of academic staff about academic freedom and working environment?</li> </ul>	

Continuation of table F.2

1	2	3	4
		<ul style="list-style-type: none"> <li>- Does university assess whether people perceive university as an attractive workplace and whether they are motivated in their everyday work to deliver quality teaching and research?</li> <li>- What are mechanisms of feedback, consultation, dialogue and systematic staff surveys?</li> <li>- Level of communication between university management and academics.</li> <li>- The handling of equal opportunities, and fairness of treatment and behaviour in the organisation;</li> <li>- Does university provide working facilities and resources sufficiently for academic staff to teach and to do research?</li> <li>- Does university evaluate and monitor level of administrative work to maintain friendly balance between teaching and research workload?</li> <li>- Are there any measures or programmes for systematic professional development and training of academic staff?</li> <li>- Are there any motivating and encouraging instruments to reward and recognize the staff for their best achievement in teaching and research?</li> <li>- Are there any measures designed to deal with issues of conflicts and dissatisfaction?</li> <li>- Does university systematically measure perception of students about learning environment, quality of education and educational services?</li> <li>- Do students feel their contribution to improvement of university performance through social activities?</li> <li>- Are there any instruments or measurement tools developed to identify needs and expectations of students?</li> <li>- Do university ensure involvement of students in development of degree programmes and discussion of improvement activities?</li> <li>- Do university discuss with students results of surveys and interviews about their perception?</li> <li>- What is an impact and contribution of studies about students' perception and satisfaction in delivering quality products and realizing university' strategic goals?</li> <li>- Does university management consider results of marketing studies and surveys about perceptions of students in developing and updating university strategy?</li> <li>- How does university define its achievement of goals on meeting needs and expectations of students?</li> <li>- Are there any committees or units at university dealing with, evaluating, analysing complains and problems of students?</li> <li>- Does university assess whether students perceive university as an institution to deliver quality education, services and to prepare high competitive professionals in demand at labour market?</li> <li>- What are mechanisms of feedback, consultation, dialogue and systematic student's surveys?</li> <li>- Level of communication between university management, academic staff and students.</li> <li>- Does university provide working facilities and resources sufficiently for students to study and to be involved in research projects?</li> <li>- Students' satisfaction with quality of education</li> <li>- Feedback management and control for continuous improvement</li> </ul>	
7b	Performance results	<ul style="list-style-type: none"> <li>- Academic staff's satisfaction with internal environment</li> <li>- Promotion of professional development and trainings for academic staff</li> <li>- Results of surveys, interviews about working atmosphere and organization's culture.</li> </ul>	

Continuation of table F.2

1	2	3	4
		<ul style="list-style-type: none"> <li>- Internal people-related performance indicators that enable the university to measure the results achieved regarding people's overall behaviour, their performance, the development of skills, their motivation and their level of involvement in the organisation.</li> <li>- Indicators regarding people's retention, loyalty and motivation;</li> <li>- The level of involvement in decision-making and improvement activities;</li> <li>- Indicators regarding individual performance in teaching and research</li> <li>- Indicators regarding skills development and training;</li> <li>- The programmes and other tools to recognize and reward staff for their achievements in teaching and research</li> <li>- Number of academics with scientific degree, young motivated people, and staff from industry engaged in teaching and research.</li> <li>- Results of surveys and focus group studies about quality of education and educational services</li> <li>- Number of enrolled students</li> <li>- Number of best students?</li> <li>- Number of student organizations dealing with issues of students' life and study.</li> </ul>	
8	<i>SOCIETY RESULTS</i>		
8a	Perception Results	<ul style="list-style-type: none"> <li>- Does university support social responsibility, as an integral part of an university's strategy?</li> <li>- Perception by the community of the university's performance on a local, regional, national or international level through different sources including surveys, reports, public press meetings, NGOs, CSOs (civil society organisations), direct feedback from stakeholders and the neighbourhood.</li> <li>- Contribution of university on development of society and economy (through quality degree programmes, graduates, commercialization).</li> <li>- University's impact on economic development of the country</li> <li>- University's impact on environmental issues like sustainable development and climate change.</li> <li>- University's impact on the quality of democracy, transparency, ethical behaviour, the rule of law, openness and integrity</li> <li>- University's impact on development of local professional community</li> <li>- Mechanism on university impact on society</li> <li>- Mechanism on identification of society's perception about university</li> </ul>	
8b	Performance Results	<ul style="list-style-type: none"> <li>- Reputation and image of university to the citizens</li> <li>- Position in national and international rankings</li> <li>- University's focus on attraction, motivation and retaining of best scholars to deliver quality education and research.</li> <li>- Level of cooperation with companies, business partners and other public organizations, citizens, community.</li> <li>- University's measures to monitor, understand, predict and improve its social responsibility.</li> <li>- University's initiatives and programmes on sustainable development and climate change</li> <li>- University's programmes on financially and non-financially supporting vulnerable population through grant allocation, free of charge rooms in students houses, etc.</li> <li>- University's activities to preserve and sustain resources.</li> </ul>	

Continuation of table F.2

1	2	3	4
		<ul style="list-style-type: none"> <li>- The frequency of the relationship with relevant authorities, groups and community representatives;</li> <li>- The amount and importance of positive and negative media coverage;</li> <li>- University's support dedicated to socially disadvantaged and underprivileged citizens;</li> <li>- Shared knowledge, information and data with all interested stakeholders;</li> <li>- Programmes to prevent health risks and accidents for citizens/customers</li> <li>- Programmes on issues of nation's well-fare and economy development and prosperity.</li> <li>- Programmes or activities to reveal and to eliminate corruption practices</li> <li>- University's role in professional community</li> <li>- Partnerships with other universities, alliances, networks</li> </ul>	
9	<i>KEY PERFORMANCE RESULTS</i>		
9a	External results	<ul style="list-style-type: none"> <li>- The key outcomes of university performance which encompass realization of university mission, strategy and planning, achievement of process targets, as well as meeting of expectations and needs of external stakeholders.</li> <li>- Position in National and International Rankings</li> <li>- Benchmarking</li> <li>- Results of accreditation (accredited degree programmes)</li> <li>- Indicators on research grants, projects, outputs</li> <li>- Indicators on successful employed graduates</li> <li>- Indicators on partnerships and agreements, etc.</li> </ul>	
9b	Internal Results	<ul style="list-style-type: none"> <li>- level of efficiency, focusing on the link with people (Criterion 3), partnerships and resources (Criterion 4) and processes (Criterion 5), and the achieved results in building up the university towards excellence.</li> <li>- Indicators on quality teaching and research</li> <li>- Number of professional academic staff, etc.</li> </ul>	

Source – developed based on the European model for improving public organizations through self-assessment

## Appendix G - Survey on internal governance development

The survey is developed to express your opinion about the good internal governance in the university.

Please, indicate working position at the university

- Administrative staff at the university level
- Administrative staff at the faculty level
- Administrative staff at the department level
- Staff
- other

Please, indicate your academic rank.

- Professor
- Associate professor
- No

How long do you work at the university?

- 1-3
- 4-9
- 10-14
- More than 15 years

Please, indicate your academic degree.

- Candidate of science
- Doctor of science
- PhD
- Other

Which department (faculty) do you work at?

- Department for Academic Affairs
- Administrative department
- Department for Science and Innovation
- Department for Social Work
- Department for Strategic Development
- Department for Quality Assurance of Education
- Department for International Affairs
- Department for Economic Affairs
- Faculty

Please indicate your profile of scientific studies

- Humanitarian sciences
- Natural sciences
- Technical sciences
- Economy, business and law
- Social sciences
- Medicine
- Art

Please evaluate each statement through giving your opinion.

*In “IMPORTANCE” section, express your opinion if the listed statements are important or not using 5-1 scale. Where 5 – very important, 4 – important, 3- less important, 2 – not important at all, 1 – do not know.*

*In “PRACTICE” section, define the experience or the practice of your university through answering from 5 to 1, where, 5 – completely agree, 4 – agree, 3- completely disagree, 2 – disagree, 1 – do not know.*

### ***Strategic development and governance***

	Statement	Importance	Practice
SDG1	Development of mission and strategic objectives in alignment with the needs of the labour market		
SDG2	Development of planning procedures with academic staff involvement		
SDG3	Engagement of external stakeholders in the strategy development process		
SDG4	Monitoring of goal achievement according to the strategic objectives and planning		
SDG5	Competent and decision-making leadership to effectively promote strategy implementation		

***Autonomy and accountability***

	Statement	Importance	Practice
AA1	More academic freedom for teaching and research		
AA2	University administration openness to initiatives and innovations from academic staff		
AA3	Academic staff engagement in decision-making processes		
AA4	Effective management of workload between administrative, research and teaching activities		
AA5	Accountability to the government and society through external quality assurance mechanisms without undermining the academic staff freedom		

***Cooperation and participation***

	Statement	Importance	Practice
CP1	Development of effective approaches to involve internal members in internal governance at the institutional level		
CP2	Engagement of external stakeholders in quality assurance procedures		
CP3	Engagement of internal members in quality assurance procedures		
CP4	Feeling of safety and care within an organization		
CP5	Feeling of support and motivation for achievement		
CP6	University management proactively attracts and retains high quality staff		

***Quality culture***

	Statement	Importance	Practice
QC1	The feeling of responsibility within an organization for quality education		
QC2	The common shared interest and values among university members (including faculty staff) to provide quality educational services		
QC3	Promotion and support of outcome-oriented approach of all university members		
QC4	University administration support and reward for the quality achievement, rather than quantity		
QC5	There are clear procedures and processes to define, measure, evaluate and enhance quality		
QC6	University administration trusts on academic staff / Faculty administration trusts on academic staff		
QC7	There is a closed feedback loops in external and internal quality assurance mechanisms		
QC8	There is a quality assurance office at the central level		
QC9	There is a quality assurance committee at the faculty level		

***Differentiation of functions and distribution of powers***

	Statement	Importance	Practice
DP1	Balance between educational and administrative activities		
DP2	Distribution of tasks effectively according to the professionalism and competence of unit members		
DP3	Bottom-up approach in solving problems and identifying the weaknesses and strengths of an organization		
DP4	The clear design and the structure of the internal governance		
DP5	The rights and responsibilities of different actors are well-defined and clear.		
DP6	Decision-making processes are carried out open and transparently for all members of the organization		
DP7	No pressure on academic staff in terms of time-consuming and effort during external quality assurance procedures (like accreditation, rankings)		
DP8	Promotion and support for academic staff at all levels through tangible and intangible incentives		
DP9	Ensuring staff development and professional trainings		