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**THIRD MISSION OF THE UNIVERSITY:
VISION, STRUCTURE, EXPERIENCE**

Abstract: The proposed paper is devoted to an examination of the concept of the Third Mission of universities, which is considered to be a pivotal aspect of their social responsibility. The study offers a comprehensive examination of the global experience in the implementation of the Third Mission, encompassing diverse approaches and practices aimed at addressing socially significant issues, fostering innovation and entrepreneurship, and engaging with local communities and stakeholders. The paper presents an overview of the experience of Kazakhstani universities in the implementation of the Third Mission, demonstrating the adaptation of global practices to local conditions and their contribution to regional development. The paper yielded the following outcomes: substantiation of the practical dimensions of the Third Mission of Universities, which may prove beneficial for further research and implementation in the domain of higher education; identification of avenues for adapting successful practices by integrating social responsibility into the activities of universities, including the formation of effective partnerships, the promotion of innovation, and interaction with local communities; identification of pivotal points for further enhancement of the concept of social responsibility in the field of higher education.

Keywords: third mission of the university, university transformation, university strategy, educational innovation, scientific research.

Introduction

The modern university is a dynamic and multifaceted institution that extends beyond the traditional missions of teaching and research. In the contemporary era, universities are assuming a role that extends beyond that of mere repositories of knowledge. They are also becoming active agents of social, economic, and cultural change. Universities engage with local communities, governmental organizations, and businesses in order to address socially significant issues, including those pertaining to environmental sustainability, social inequality, and civil society development. Such institutions serve as hubs of innovation, providing support for nascent businesses, disseminating novel technologies, and cultivating an entrepreneurial spirit among students and faculty. Modern universities cultivate sustainable relationships with external stakeholders, including businesses, government agencies, and non-governmental organizations. Such partnerships facilitate the more effective integration of universities' educational and research efforts with the needs of society. Universities help solve global problems like climate change and digital transformation. They also help create a circular economy, provide inclusive education, and promote sustainable development. They also support culture by supporting the arts, humanities research, and cultural heritage.

This multifaceted image of a higher education institution is due to the realization of the Third Mission, which defines a university as an engine of socio-economic progress in addition to its traditional tasks of education and research. In this mission, universities become centers of innovation, entrepreneurship and social change. The third mission is about making sure that universities help create sustainable models of development that involve local and global communities. To achieve this mission, we need to work with other groups and involve students

and staff in practical projects. The realization of the third mission ensures a significant improvement in the quality of life in the regions, the development of small and medium-sized businesses, and the promotion of social innovation.

The Bologna Process transformed European higher education and led to the third mission of universities. The Bologna Process began in 1999 with the signing of the Bologna Declaration. Its goal was to create a unified European Higher Education Area that could compete globally. This initiative made universities think about their role in society. The Bologna Process promoted the expansion of higher education and improved standards. It also led to universities taking on a wider role. The Bologna Process started to talk about things like students moving around more, making sure that degrees are recognized across countries, making graduates more employable, and making sure that higher education and the job market are connected. These changes created the conditions under which universities began to realize their responsibility to society and to become more actively involved in solving social and economic problems. The need to adapt higher education to the new requirements and challenges of globalization, which was one of the objectives of the Bologna Process, prompted universities to expand their functions to integrate social responsibility into their strategic goals.

The aim of the paper is to conduct a comprehensive analysis of the global experience of implementing the third mission of universities, which is achieved through a literature review. Within this goal, it is intended to study various approaches and practices used by universities to realize their social responsibility. The analysis covers a wide range of initiatives, from integrating innovation and entrepreneurship into the educational process, to active engagement with local communities and participation in addressing global challenges.

In addition, the paper pays attention to the experience of Kazakhstani universities in the realization of the third mission. It considers how global practices have been adapted to local conditions, what specific steps have been taken to strengthen their role in regional development and what results have already been achieved in this process. This focus on both the global and local experience of Kazakhstani universities helps us understand how the third mission can be done in practice and what we can learn to improve this concept in Kazakhstan.

Methods and organization of the study

The materials of the study were scientific papers and program documents describing the principles and strategies of the Third Mission of the university. The authors carried out a systematic literature review on the Scopus database, analyzing Russian and English-language papers for the period 2004 – 2024.

The following research methods were applied to analyze publications using the keywords “third mission at the university”.

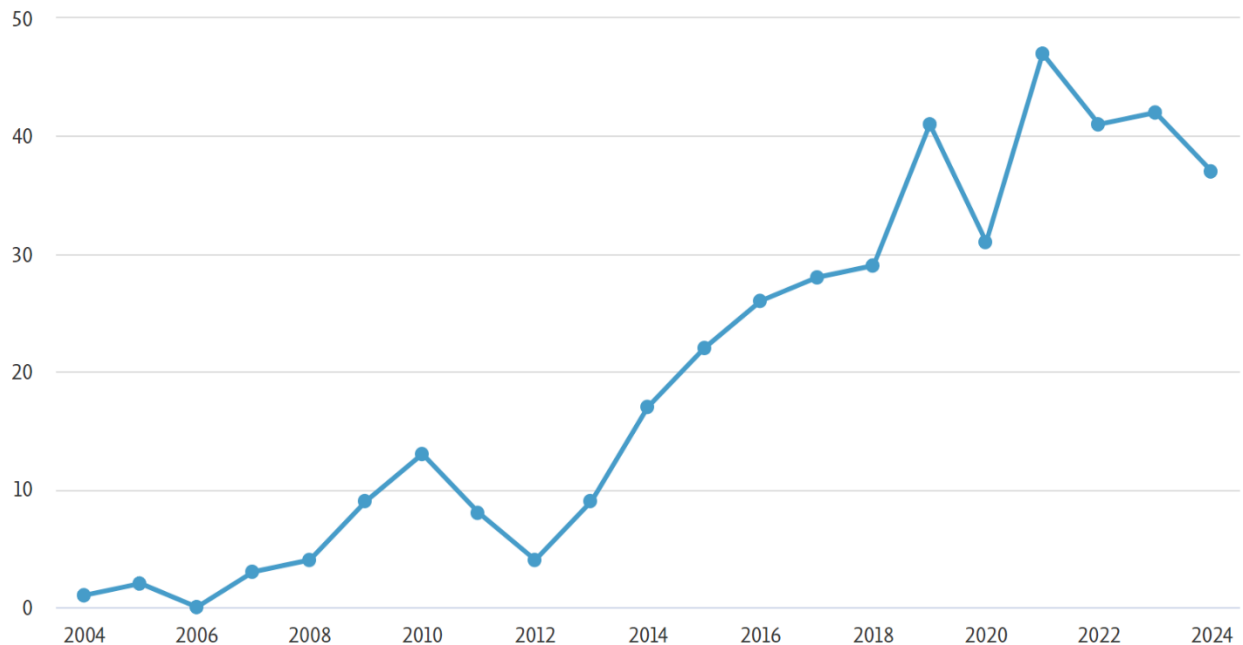
Primary searching and filtering. In the initial stage of the search, all fields of the database were queried to identify the maximum number of relevant publications. This search employed keywords to provide a focus on the research topic. Restricting the languages to English and Russian allowed for a narrowing of the focus to a specific audience and context. The exclusion of related branches of knowledge helped to narrow the focus on the educational field and avoid irrelevant papers. The initial search yielded 33,943 documents.

In-depth search. At the second stage, a filter was applied that limited the search to publication titles, abstracts, and keywords. This approach markedly reduced the number of documents to 414, thereby enabling us to concentrate on the most pertinent and information-rich sources. This comprehensive search strategy facilitates the establishment of more precise links to the subject matter under investigation and provides access to the primary abstracts of the publications, which is beneficial for subsequent analysis.

Qualitative and quantitative analysis. Following the preparation of the database comprising 414 documents, a quantitative analysis was conducted. This included the

description of publications according to various criteria, such as year of publication, country of origin, organization, and other established categories. This enables the monitoring of publication trends and the identification of the most active regions and organizations within the study area (see Figures 1, 2).

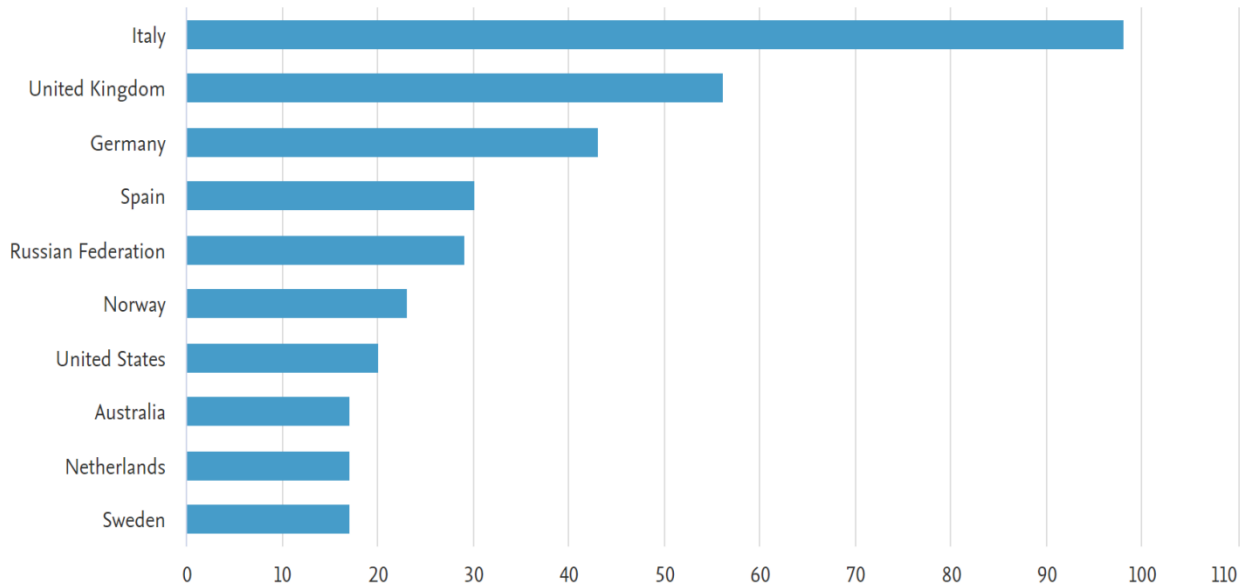
Figure 1
Publications by year



The data demonstrate a notable surge in the number of scholarly publications dedicated to the University's Third Mission, with notable peaks observed in 2010, 2014, 2019, and 2021. Let us point out some key reasons for the growth of publications in these years. The global economic crisis of 2008-2009 has exacerbated the need to rethink the role of universities in society. The need to create new economic models and find ways out of the crisis has increased. Universities have come to be seen as important players in supporting local economies, innovation and job creation. Also in 2010, interest in sustainable development intensified, leading to an increase in research on how universities can contribute to solving environmental and social problems. By 2014, many countries, especially in Europe, began to actively promote innovation programs and policies. This time is characterized by the establishment of innovation support programs, which led to an increased role of universities as centers of innovation and research. The result has been an increase in publications exploring the role of universities in these processes. In 2019, there was an increased focus on social inequalities and political polarization, reflected in a growing number of studies on the role of universities in promoting social justice and democratic processes. The COVID-19 pandemic radically changed many aspects of life, including the role of universities. In the face of the global crisis, universities have been on the front lines of the pandemic, conducting research and providing expertise. This has led to a significant increase in the number of publications on how universities can contribute to societal and economic recovery from the pandemic. The pandemic precipitated the acceleration of processes of digitalization and transition to distance education, which in turn necessitated a rethinking of approaches to learning and social interaction. This has also

contributed to a growing interest in the third mission, particularly in the context of lifelong learning and social interaction.

Figure 2
Publications by country

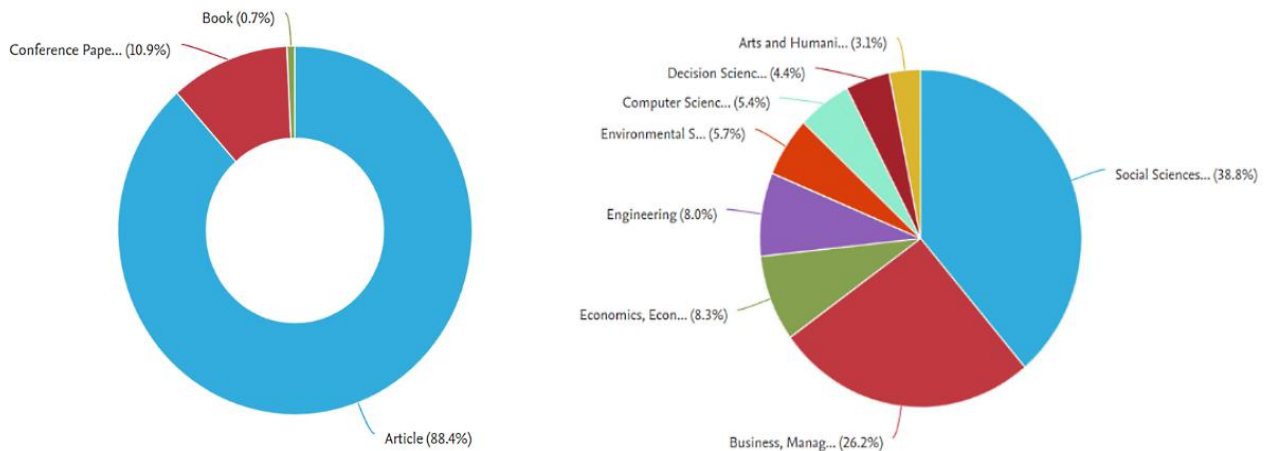


Italy, Great Britain, Germany, Spain are leaders in the number of publications on the third mission of universities for several reasons related to the peculiarities of their educational system, public policy, and social and economic conditions. European countries stand out on the world stage for their integrated approach to the development of higher education, which includes a significant focus on the third mission of universities. The Bologna Process launched in 1999 contributed to the unification of higher education systems in Europe, which created favorable conditions for the integration of the third mission of universities in their activities. As a result, universities in Europe have become more active in social responsibility, innovation and community engagement. The European Union actively supports programs aimed at the development of social responsibility of universities and their interaction with society. Programs such as Erasmus, Horizon are aimed at funding research and innovation that have a direct social and economic impact. European culture is characterized by a profound commitment to social responsibility, a value that is reflected in the educational system. European universities are traditionally regarded not only as centres of education and research, but also as active participants in public life. This encourages the pursuit of research in the field of what is known as the “Third mission”.

Comparative analysis. A comparative approach entails a comparison of the number of publications according to different criteria, such as the types of fields of knowledge or funding organizations involved. This method facilitates the identification of the fields or organizations that contribute the most to the advancement of Third Mission theory and practice in universities.

Data visualization. The charts built by the database make it easier to understand the information and visualize the results of the analysis (see Figures 3, 4).

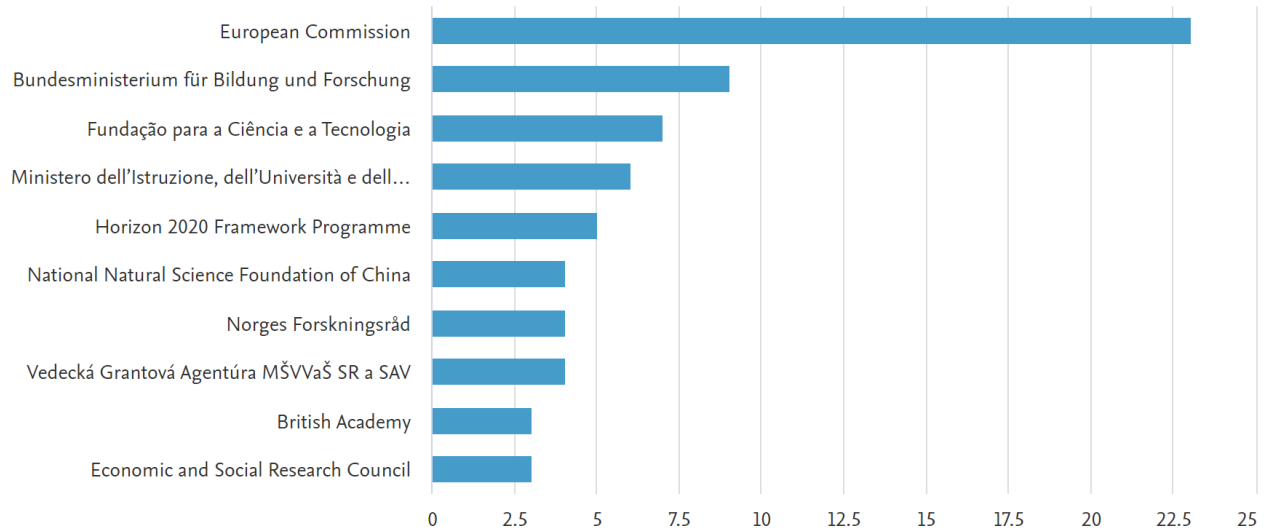
Figure 3
Publications by type and branch of knowledge



The distribution of publications by type with the overwhelming predominance of papers (88.4%) indicates that the topic of the Third Mission of Universities is actively researched in the scientific environment. The prevalence of papers indicates the high relevance of the topic. Researchers prefer to publish the results of their research in journals, which allows for the rapid exchange of new data and ideas. Papers tend to get into circulation faster than books and are more likely to be used to analyze current and rapidly changing trends. The share of publications resulting from conferences (10.9%) shows that researchers also actively discuss the Third Mission at scientific events. Conferences serve as an important platform for exchanging ideas, debates and receiving feedback from colleagues, which contributes to the development of the topic and the expansion of the network of scientific contacts. The small percentage of books devoted to the topic suggests that research in this area has not yet reached a level of maturity where the accumulated knowledge is systematized in the form of monographs or textbooks.

In the last twenty years, the growth of publications on the third mission of universities in social sciences, business, management, economics and engineering has been driven by global economic and social changes. Globalization processes have led to an increased role of universities in regional development and innovation, which has become a necessity to maintain competitiveness and sustainable growth in a global economy. At the same time, the emphasis on corporate social responsibility and sustainable development has stimulated research on the third mission, as universities have become important actors in addressing social and environmental issues. The development of technology and the need for its effective implementation in society have also increased interest in the role of universities in knowledge transfer and innovation, which is reflected in the growing number of publications on this topic.

Figure 4
Publications by research funding organizations



The European Commission actively supports research and initiatives aimed at strengthening the third mission of universities through its funding programmes such as Horizon 2020 and Horizon Europe. These programmes provide significant funding for projects that promote innovation, sustainability and social responsibility. This approach reflects the EU strategy to strengthen the role of universities in addressing global and regional challenges, which is directly related to the concept of the third mission.

Interpretation and conclusions. The research team conducted an analysis of the data obtained, identifying key trends and patterns.

The described research methods contribute to a deeper understanding of the topic and allow us to build an overall picture of the research, as well as help to identify key players, trends and possible directions for future research and practice.

Content analysis is a method of literature review that allows for a systematic examination of text materials, thereby facilitating the identification of key themes, trends, and patterns. This approach contributes to a comprehensive understanding of the topic under study. A detailed presentation of this analysis will be provided in the subsequent section of this paper.

Literature review

A systematic review of the literature was undertaken to identify the principal models and strategies for the implementation of the Third Mission in universities. This enabled the determination of the predominant approaches and practices employed in their implementation.

The approaches highlighted reflect such key aspects as academic activity, innovation processes and social responsibility within the framework of the Third Mission of Universities.

Academic activity as a driver of the Third Mission is considered in the context of practice-oriented learning and in the context of lifelong learning (LLL).

Practice-oriented learning is a strategy aimed at integrating theoretical knowledge and practical skills needed to solve real problems of society and the economy. This approach involves developing curricula that focus on the practical aspects of students' professional activities. The focus is on project work, collaboration with industrial partners and participation in real projects, which allows students to apply the acquired knowledge in real conditions and develop key competencies that are in demand in the labour market. In this way, universities not only form academic knowledge, but also contribute to the preparation of graduates who are

able to effectively act in a professional environment, which directly corresponds to the goals of the Third Mission (Compagnucci & Spigarelli, 2020; La Sala et al., 2020).

A notable example of practice-oriented learning is the experience of Aalborg University in Denmark, which has developed a distinctive model of an educational process that engages students in projects that contribute to sustainable development. In this approach, students engage in the actual execution of tangible projects, frequently in conjunction with external stakeholders from industry and public institutions. These projects focus on solving current problems related to sustainable development, allowing students to gain practical experience and develop innovative solutions. The university actively integrates sustainability topics into its curricula, allowing students to not only study theoretical aspects but also apply them in practice. The programmes include courses in sustainable design, resource management and the development of technologies that help reduce environmental impacts. Aalborg University is involved in numerous international and regional initiatives aimed at sustainable development. It is a member of a network of universities and research institutions working on global challenges related to the environment, energy and social aspects of sustainable development (Lehmann et al., 2009).

Lifelong learning, within the Third Mission of universities, emphasizes the continuous educational process that supports professional and personal development throughout life. This aspect includes the offering of educational programs and courses aimed at expanding and updating knowledge, skills and competencies, which is especially important in the context of rapid changes in technology and professional requirements. Universities develop and offer a variety of courses, programs, and training opportunities for individuals across different age groups and professional backgrounds. This facilitates adaptation to changes in the professional environment and personal growth. Lifelong learning thus serves to maintain the connection between universities and society, ensuring the continuous development and updating of knowledge in accordance with market requirements and social changes (Yang et al., 2015; Secundo et al., 2017). An interesting example of the implementation of lifelong learning programs is the work of some universities in their botanical gardens: for city residents, botanical gardens, in addition to their main functions, are gradually becoming a place for the integration of different groups of the population – from schoolchildren to pensioners. In these public spaces, an active educational policy is carried out, aimed at many segments of the wider university community, taking into account the experience of regional environmental organizations and international associations of botanical gardens (Chernysheva, 2021).

Research, methods and innovation

The objective of research and innovation for the third mission of universities is the creation and implementation of practical solutions to address urgent social, economic, and environmental challenges, thereby contributing to sustainable development and social advancement. A substantial corpus of scientific literature exists on this specific iteration of the Third Mission at the university. Thus, the works of Spânu P., Ulmeanu M., Doicin C.-V.; Li J., Gong Y., Li H.; Demarinis Loiotile A., De Nicolò F., Agrimi A., Bellantuono L. et al. describe the experience of universities in implementing a comprehensive approach to activating innovative creativity through research cooperation with industry, patenting, consulting activities, licensing of new technologies, creation of start-ups and subsidiaries, entrepreneurship programs, incubation and much more (Spânu et al., 2024; Li J. et al., 2024; Demarinis et al., 2022).

UK universities in Newcastle, Aberdeen, Belfast and Stirling have been involved in the City Deals programme, which aims to improve the quality of urban life by developing technology solutions to meet the diverse needs of society and local market demands (McCann et al., 2023). The University of Bergen in Norway has developed a common research ecosystem

through various political and social connections at the local, national, and global levels. It has done so by taking an active part in political and economic forums and committees as experts and consultants, and through membership on the boards of companies, public organizations, and associations (Taxt et al., 2022).

Universities in Portugal and Spain, like many others, receive partial financing from their own income generated from teaching and research activities. This necessitates the optimization of resources and a concentration on areas that can provide the greatest economic return. Consequently, universities endeavor to cultivate novel initiatives and collaborations that can foster economic value and, potentially, generate revenue (Monteiro et al., 2021).

The Pontifical University of Comillas is a Jesuit university located in Madrid and is developing initiatives and projects such as: developing an application for virtual stores, printing chemotherapy boxes for children, printing parts for children with severe disabilities, recycling plastics into yarn for 3D printers, programming sensors for monitoring and controlling the health of plants, automatic watering in smart gardens, etc. (Puente et al., 2021).

Social sphere. Another option for developing the Third Mission at the University includes active participation in social innovation and improving the quality of life in the community through the involvement of students and staff in projects aimed at solving social problems and developing social responsibility.

The most common format of social participation of the university is the volunteer movement, in which students and employees solve such issues as assistance in the dissemination and acquisition of education, support in the field of health care, work with socially vulnerable groups, support for employment and integration of people, as well as participation in socially significant projects and initiatives (Conn et al., 2014).

Universities collaborate with local and international volunteer organizations to organize joint initiatives and projects, thereby enabling students and staff to actively engage in social change at the local and global levels. Furthermore, events are held with the objective of raising awareness about volunteering. These include volunteer days, social initiative fairs, and conferences where successful volunteer projects and their impact on society are discussed. For example, The University of Manchester is very supportive of volunteering. The Volunteer Hub has been created, which contains a database of organisations with which the university carries out volunteering cooperation at the local, national and international level. This hub is also a service that tracks the hours of volunteer work of students within the framework of the Stellify award and/or the Manchester Leadership Programme (<https://www.volunteers.manchester.ac.uk/>).

Furthermore, volunteer work can be regarded as a means of professional development and a potential gateway to specific employment opportunities. Participation in such activities enables individuals to cultivate skills and abilities, which can be conceptualised as “personal and social resource capital” that may prove beneficial in securing future employment. (Giancaspro & Manuti, 2021).

Volunteering is often responsible for developing the environmental movement: environmental protection projects (cleaning water bodies, planting trees and participating in pollution reduction campaigns); educational events and workshops on ecology and sustainable development for the local community; research projects aimed at studying ecosystems and developing solutions to improve the environmental situation; promoting environmentally friendly habits such as recycling, reducing plastic consumption and saving energy through campaigns and initiatives on campus and in the community (Dlimbetova et al., 2019).

Thus, the main vectors for implementing the Third Mission at the University include educational initiatives aimed at preparing students to solve social and environmental problems, research activities aimed at developing innovative solutions for sustainable development, and

social participation, including active involvement in projects that improve the quality of life in the community.

Results

Literature analysis demonstrates how universities around the world are integrating the Third Mission through educational, research and social initiatives. Based on these global trends, it is possible to trace how Kazakhstani universities adapt and implement the principles of the Third Mission to meet local needs and challenges.

In the Third Mission, universities not only transmit their knowledge, but also actively integrate their resources into public needs, directing them towards social, cultural and economic development. This is a strategically important approach that is becoming increasingly relevant in the context of globalization and rapid changes in society. Universities in Kazakhstan, following international trends and initiatives, strive to embody this approach in their practice.

One of the key initiatives is the introduction of the international CDIO (Conceive-Design-Implement-Operate) model into the educational system. This model is aimed at training graduates who possess not only theoretical knowledge but also practical skills necessary for successful work in complex engineering and technical fields. CDIO implementation in Kazakh universities allows students not only to learn how to design and implement complex engineering systems, but also to manage them at all stages of their life cycle.

Lifelong Learning (LLL) also plays a significant role in the realization of the Third Mission. The Silver University in Kazakhstan program provides opportunities for professional and personal growth of older people by promoting continuous learning and social engagement. This program includes courses on digital literacy, financial security, foreign languages, as well as art therapy and physical health. The Silver University project organizes master classes and seminars on topical topics that help adults adapt to a rapidly changing world and remain active members of society.

In the field of research, Kazakhstani universities are actively developing cooperation with scientific and industrial partners such as “Ulba Metallurgical Plant” JSC, “KEMONT” JSC, “KAZ Minerals” LLP, “Kazzinc” LLP, etc., which contributes to the creation of innovative ecosystems. These partnerships enable universities to develop high-tech solutions and conduct research in natural resource management, geology, new materials and technologies. For example, joint projects in mineral extraction and processing lead to the creation of new, more efficient working methods and ensure competitiveness both nationally and internationally.

In the social sphere, Kazakh universities are engaged in the advancement of volunteer programs, environmental initiatives, and cultural projects, which contribute to the enhancement of regional quality of life and the cultivation of social responsibility. A significant area of focus is volunteering, wherein students and faculty members engage in initiatives aimed at assisting vulnerable populations and addressing social issues. For example, universities organize a variety of landscaping initiatives, provide assistance in nursing homes, and collaborate with children from disadvantaged families.

Environmental initiatives such as the Green Campus project encompass activities designed to diminish the institution's carbon footprint and enhance its environmental sustainability. As part of this project, students and staff are engaged in the development and implementation of energy conservation policies, including the utilisation of renewable energy sources and a system of separate waste collection. Such initiatives facilitate not only a reduction in the university's impact on the environment, but also the development of a responsible attitude towards ecology among students.

Moreover, universities facilitate the implementation of cultural initiatives with the objective of fostering regional cultural and civic consciousness. Such initiatives encompass a

range of cultural activities, including events, exhibitions, and festivals, which facilitate cultural exchange and local community development.

Kazakhstani universities are actively implementing the Third Mission, which entails the integration of academic education, research activities, and social participation. This enables not only the reinforcement of the bonds between academic institutions and the surrounding community, but also the advancement of the region's sustainable development, addressing pressing social and environmental concerns.

The Third Mission of universities, which encompasses social, educational, and scientific aspects, is a complex and multifaceted concept. Its objective is to integrate academic activities with the needs of society. In the context of our study, we examined the implementation of this mission in universities through the lenses of education, science, and social activity.

Discussion

This research aimed to identify pathways for the implementation of the Third Mission within universities. A significant portion of the results obtained aligns with previous studies in this area. In the discussion, we highlight key findings and emphasize important aspects.

For many papers, the Third Mission of universities primarily involves the development of innovation, creativity, and entrepreneurship (Dinh, 2021; Petersen et al., 2022). These works underscore the importance of resources and research and development opportunities associated with technology transfer within universities (Chedid & Teixeira, 2019; Vefago et al., 2020).

In our paper, research activity is presented as a critical component of the Third Mission, with innovation being feasible only when the educational system and social initiatives collaborate to create the necessary technologies. The paper also highlights successful examples of collaboration between Kazakh universities and industrial partners, such as Ulba Metallurgical Plant and KAZ Minerals, in developing innovative ecosystems. While similar partnerships are discussed in international literature, focusing on specific enterprises and their roles in fostering local high-tech solutions strengthens the connection between academia and industry in Kazakhstan. This adds a regional context to discussions about global trends in the integration of science and industry.

A considerable body of research links the implementation of the Third Mission to the transformation of educational systems toward practical orientations and the reformation of teaching practices (Buch et al., 2022; González-Pérez & Ramírez-Montoya, 2022; Bosanac et al., 2023). Our study presents a concrete example of implementing the CDIO initiative, outlining a pathway for universities to incorporate it into their academic activities. This pathway is particularly relevant for Kazakh education, especially in engineering, as Kazakhstan transitions to Industry 4.0 and requires advanced engineering personnel.

Another crucial aspect of the Third Mission is societal transformation and the active role universities play in this process (Schildermans, 2022; Jones et al., 2021). The proposed paper presents specific mechanisms for implementing social initiatives that can also be adopted by other universities in Kazakhstan: the Silver University programs, promotion of green campus ideas, and urban initiatives. The Silver University program emphasizes the social significance of educating older adults and their engagement in community life. In international research, lifelong learning typically focuses on adult education within retraining and adaptation to the labor market. Our emphasis on the social component, including digital literacy courses, art therapy, and wellness programs for seniors, offers a unique local interpretation within the context of Kazakhstan.

The future development of the Third Mission in universities will likely focus on increasing the institutional capacity for integrating emerging technologies such as artificial intelligence, digital twins, and big data analytics to enhance both education and societal impact. This could enable universities to develop predictive models for social and environmental

issues, thus facilitating proactive solutions. There is also the potential for expanding public-private partnerships, leveraging not only traditional industries but also start-ups and tech firms to create innovative ecosystems that address local and global challenges. Furthermore, the internationalization of education through virtual exchange programs may allow universities to extend their Third Mission reach beyond geographical borders, offering new solutions to global issues while fostering cross-cultural collaboration. Additionally, the growing emphasis on ethical leadership and social innovation in curricula may redefine the role of universities, positioning them as key players in creating equitable and sustainable futures through policy influence and community engagement.

Findings

The conducted research on the Third Mission of universities led to several key conclusions.

The notable growth in publications related to the Third Mission of universities aligns with a broader global emphasis on sustainability, innovation, and social justice. This trend is particularly pronounced in European countries, where strong government support and funding initiatives, like Erasmus and Horizon, play a crucial role in fostering research that is not only abundant but also relevant in tackling pressing societal challenges. This indicates that government policies and funding mechanisms are essential for driving research and promoting university engagement with social needs.

Second, universities are focusing on practice-oriented learning as a means of preparing students to solve social and environmental problems, thereby developing their competencies in real-life situations. This approach reinforces the alignment between academic education and societal needs.

Third, university research is increasingly directed toward developing innovative solutions for sustainable development, allowing for the translation of scientific results into practical applications that tackle current challenges. Collaboration with industrial partners plays a crucial role in this process, ensuring that research findings are integrated into real-world industrial contexts and facilitating the introduction of new technologies and methodologies.

Fourth, universities are actively engaged in social projects aimed at enhancing community quality of life. These initiatives encompass volunteer programs and environmental projects that support vulnerable groups and promote regional environmental sustainability. Through these efforts, universities demonstrate their commitment to social responsibility and their active participation in addressing social and environmental challenges.

The findings and insights from the paper hold considerable relevance for Kazakhstan, particularly in the context of its socio-economic development goals.

As Kazakhstan seeks to improve its educational landscape, embracing the Third Mission can facilitate the transformation of universities into centers of innovation and social responsibility. This alignment with global trends can attract more students and investment, enhancing the nation's educational standing on an international level.

Effective implementation of the Third Mission can directly address social challenges within Kazakhstan, such as poverty, unemployment, and regional disparities. By engaging in community-oriented projects, universities can contribute to solving these issues while simultaneously developing relevant skills among students.

Fostering entrepreneurship through university initiatives can stimulate economic growth, particularly in emerging sectors. This aspect is critical for Kazakhstan's diversification efforts away from oil dependency toward a more varied economy.

The emphasis on building partnerships with local businesses, NGOs, and government agencies will be vital for the successful engagement of universities in regional development.

This cooperative framework can lead to more impactful research activities and innovations that meet the needs of the local economy and society.

The article provides a strategic foundation for Kazakhstani universities to enhance their role in society through the Third Mission, ultimately promoting sustainable development within the nation. By integrating social responsibility into their core activities, these institutions can become pivotal agents of change in their communities.

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Conflict of Interest Statement

The authors declare no potential conflicts of interest regarding the research, authorship, or publication of this article.

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