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The role of rankings in higher education policy: Coercive and normative isomorphism in Kazakhstani higher education

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ABSTRACT

The present study aims to investigate the role of rankings in Kazakhstani higher education policy and their influence on a group of national universities in Kazakhstan. The analysis draws attention to the role of the Kazakhstani government and accreditation agencies in developing coercive and normative isomorphism in Kazakhstani higher education. The analysis of university missions and development strategies of a group of universities with a special status has revealed that national universities are pushed towards an Anglo-American model of a research university. Further research is suggested to assess the response of Kazakhstani higher education institutions (HEIs) to these coercive and normative pressures.

1. Introduction

In recent decades, many governments in Asia and Europe have increased their reliance on market regulation of higher education. In connection with this, governments have treated universities as service providers. Ensuring the quality of higher education providers in the context of market competition became the task of quality assurance bodies. Therefore, the quality of university services has stopped being the area of governmental control and is now subject to the monitoring by diverse societal stakeholders, from accreditation agencies to media (Steiner et al., 2013).

However, the increased power of consumers made a single definition of academic quality impossible (van Vught, 2008). As noted by van Vught (2008, p.167), “the clients of universities are only able to judge the relevance and the quality of the outputs of higher education, when they are able to experience them.” Furthermore, a market phenomenon of global university rankings emerged, which compared universities against a standard set of criteria. The influence of the rankings outweighed the influence of other stakeholders in higher education, including quality assurance agencies. Thus, rankings became a powerful dynamic that has shaped the global market of higher education (Marginson, 2006). Specifically, it was found by Dill and Soo (2005) that the most influential rankings converged the notion of academic quality. In connection with this, Dill (2009, p.15) wrote that “In sum, because the higher education market is characterized by inadequate and inappropriate information, an ambiguous conception – ‘academic prestige’ – comes to represent academic quality in the public mind.” (Dill, 2009, p. 16).

The importance of prestige has put forward a comprehensive research university as an ideal type of higher education institution that can succeed in the market conditions. This model is sometimes referred to as the “entrepreneurial model” (Vaira, 2004, p. 490, Mohrman et al., 2008) or, more commonly, as the “World-Class University” model (e.g. Sadlak and Liu, 2007). The World-Class University model is based on a comprehensive research university, which is more widespread in the USA and the UK. The criteria of the two most influential rankings, Shanghai Jiao Tong and Times, have been found to either promote or favor the model of the Anglo-American research university (Marginson, 2006, December, p. 10). Existing research suggests that global university rankings foster competition between universities and the adoption of global models of higher education institutions (HEIs) (van Vught, 2008).

The influence of rankings in the higher education market suggests that the increased reliance on market regulation is against the economic interests of countries (van Vught, 2008; Hazelkorn, 2012). Specifically, rankings put the diversity of higher education institutions at risk and increase isomorphism - a tendency of organizations to adopt similar practices. According to Hazelkorn (2012), rankings bring the division of universities into elite research and mass teaching tiers, with increased funding for research-intensive HEIs. Thus, rankings mislead stakeholders into perceiving only two dimensions of diversity: research and teaching (Hazelkorn, 2012). It was argued by Hazelkorn (2012) that university missions must cover many dimensions (e.g. in terms of the student body, university mission, and even research contribution). In 2020, during the spread of the Covid-19 worldwide, calls to pause global rankings appeared in the media (Davie, 2020). Several experts...
expressed their opinion in media that Covid-19 showed that rankings' criteria distract from other important dimensions, that universities should follow in their development (Davie, 2020). The 2022 global rankings will exacerbate the inequalities of the higher education market, in which leading UK and US universities are able to continue research activities, while universities from developing countries might face financial difficulties (Davie, 2020; Ross & Bothwell, 2020).

The line of research dedicated to the influence of rankings contains rich evidence of the isomorphic effect of rankings in Europe, North America, and East Asia (Hazelkorn, 2007; Sadlak and Liu, 2007; Erkkilä and Piironen, 2014; Kehm and Stensaker, 2009, Lo, 2014; Yudkevich et al., 2015). For example, European governments have been reducing government regulation and funding, increasing university autonomy, and replacing government control with quality assurance conducted by third parties in frames of the Bologna process. Studies in Europe showed that the reform of higher education policies had increased the importance of prestige and reputation for European HEIs (Vaira, 2009). Thus, the Bologna process and global university rankings pushed many HEIs to adapt to the model of US research universities (Vaira, 2009).

Despite these critical trends, the problem of isomorphism and the promotion of Western models caused by rankings was not addressed in application to post-Soviet countries (except for Russia). Initially, most countries in the post-Soviet context had continued the tradition of universities as teaching organizations and separate research institutions (Smolentseva et al., 2018, p. 25). However, Kazakhstan and Russia are distinct for their efforts to build research universities based on existing HEIs (Smolentseva et al., 2018, p. 25). Both countries are recipients of significant intraregional mobility flows, including students from Central Asia. While Russia is a significant target for mobility flows in the post-Soviet region, in 2016, there was an increased flow of students to Kazakhstan from other Central Asian countries (European Commission, 2016). Research by European Commission (2016) confirmed the role of rankings of universities and programs as significant factors for the mobility of students in Central Asia.

Despite the importance of rankings for mobility flows in the post-Soviet region, research evidence suggests that the application of global rankings in the post-Soviet context can lead to the superficial adoption of Western models and distract universities from critical priorities. For example, combating corruption is the biggest challenge for higher education in the Central Asian sub-group of post-Soviet countries (Heyneman, 2010). However, research by Heyneman (2014) showed that many universities in Kazakhstan and Kyrgyzstan did not include ethical elements on their websites. It is important to note that many universities in these two countries participate in global and national rankings. While 97.5 % of 400 best universities in THE included ethical elements on their websites, for example, academic integrity, diversity, and equity, rankings do not include these activities of successful universities, drawing the attention to the quantitative measurements of research and internationalization (Heyneman, 2014). Thus, the ethical side of a research university model remained unseen by many Central Asian HEIs.

The side effects of rankings make it essential to study their influence in those post-Soviet countries, which want to build research universities. While studies on Russia exist, the problem of the Western model of research university imposed by global rankings did not receive much attention in the Kazakhstan context. In Central Asia, Kazakhstan has been influenced by international trends most of all, being the only Bologna signatory and the country with the highest level of privatization of higher education (Smolentseva et al., 2018, p.13). In this context, global rankings have started to play a significant role in the national higher education policy. Specifically, Kazakhstan made including its universities in the list of QS WUR rankings an overarching target indicator for its higher education policy for the years 2016 – 19. Ahn et al. (2018) noted that in the context of sociopolitical challenges in Central Asia, Kazakhstan higher education reform is experimental (p. 222).

The international evidence on isomorphism and the adoption of an Anglo-American research university model, promoted by rankings, as well as the importance of rankings for intra-regional mobility flows among post-Soviet countries, make it necessary to study the application of rankings as a policy instrument in Kazakhstani context. The spread of the Covid-19 is another reason to reassess the impact of rankings on the Kazakhstani higher education landscape.

Following van Vught (2008), the paper argues that a group of leading state-funded Kazakhstani HEIs has been pushed towards the Anglo-American model of research university, by the coercive government policy and normative pressures of national accreditation agencies, driven by the global rankings. The paper is organized as follows: the Theoretical Framework section will present the theory of isomorphism by DiMaggio and Powell (1983) and highlight the role of global rankings in the promotion of an Anglo-American model of research university. Methods and Design section outlines the research approach, the main steps of the analysis, and sampling. In the main section of the paper, the role of rankings in Kazakhstani higher education policy is analyzed. Further, the influence of Quacquarelli Symonds (hereinafter – QS) agency and national rankings on Kazakhstani HEIs is examined.

Following that, the use of QS World University Rankings (hereinafter – QS WUR) criteria is analyzed in the development strategies of a group of Kazakhstani national universities. The findings are compared with international literature in the Discussion section. Finally, in the Conclusion section, study limitations and implications for research are suggested.

2. Theoretical framework: theory of isomorphism and global rankings

The increased influence of prestige in the higher education market was explained in the theory of isomorphism by DiMaggio and Powell (1983). DiMaggio and Powell (1983, p. 147) explained that “organizations that produce similar service or products” all comprise the organizational field. According to them, some organizational fields experience multiple pressures beyond the market competition, including state regulations and professional standards. "Organizations compete not just for resources and customers, but for political power and institutional legitimacy, for social as well as economic fitness” (DiMaggio and Powell, 1983, p. 150). In this environment, institutional competition drives organizations to seek legitimacy and prestige. Legitimacy provided by government regulations and professional standards is necessary for gaining access to markets (Brown, 1998). Furthermore, a positive reputation attracts resource flow from external stakeholders (Deephouse and Suchman, 2008, p. 64). As a result, institutional competition drives organizations to adopt organizational models and standards that are perceived as the most legitimate and prestigious (DiMaggio and Powell, 1983). In this context, the role of media becomes essential, as it is another source of legitimacy, along with the state and stakeholders (Deephouse and Suchman, 2008, p. 55). Research has shown that media reports are influential in making organizations legitimate; they are simultaneously indicators and sources of legitimacy (Deephouse and Suchman, 2008, p. 55).

Competing for legitimacy, organizations become more isomorphic in three ways (DiMaggio and Powell, 1983). First, they achieve this by following law, rules, and regulations established by the state and a variety of regulatory agencies (coercive isomorphism). Second, they copy the most successful and legitimate organizations in their field (mimetic isomorphism). Finally, professional norms may be taught and spread through the education of organizational leaders and administrators via professional accreditation agencies and associations (normative isomorphism). The last process was called “professionalization” by DiMaggio and Powell (1983). In a similar vein, as noted by Heugens and Lander (2009, p. 63): "To attract the support they need, organizations thus attempt to follow the laws dictated by the state, live up to
their duties as members of associations, meet the standards set by accreditation agencies, and market products and services that critics favorably receive.” These three main types of isomorphism were suggested by DiMaggio and Powell (1983) as an analytical tool, while they may intertwine in empirical settings. As noted by DiMaggio and Powell (1983, p. 151), “they tend to derive from different conditions and may lead to different outcomes.”

All three types of isomorphism lead to the process of modeling (DiMaggio and Powell, 1983). In the case of coercive isomorphism, legitimated norms and regulations, rules, and standards enforce specific organizational models in either a direct or a subtle way (DiMaggio and Powell, 1983, p. 151). In the case of mimetic isomorphism, organizations themselves copy the structure of more legitimate, successful organizations. Media is a significant influencer that drives universities towards mimetic isomorphism. Finally, in the case of normative isomorphism, organizational models are spread by professionals and professional organizations that support particular models (DiMaggio and Powell, 1983). Therefore, the primary effect of isomorphism is an imposition of organizational models, which leads to the increasing similarity of organizations within one organizational field.

These rules mostly apply to organizational fields that are strongly characterized by defined orders of status or hierarchical organization. The spread of information among professionals makes the process of isomorphism easier (DiMaggio and Powell, 1983, p. 153). As noted by DiMaggio and Powell (1983, p. 154), “Organizational fields that include a large professionally trained labor force will be driven primarily by status competition. Organizational prestige and resources are key elements in attracting professionals.”

The two most influential global rankings originate from the cooperation between the Times Higher Education Magazine and Quacquarelli Symonds. Thus rankings originated from media, later becoming a phenomenon on its own. It was found that the criteria of the two most influential rankings, Shanghai Jiao Tong and Times support the model of the Anglo-American research university (Marginson, 2006, December, p. 10). In higher education, it is acknowledged that rankings direct student and academic flows in both international and national higher education landscapes (Marginson, 2006). According to Marginson (2006, p. 8), national higher education sectors are already segmented into elite research universities, aspirant research universities, and teaching focused HEIs. Using Marginson’s work, we can see that higher education can be described as a field that has high-, middle-, and lower-status groups both at global and national levels. This competition for best students and researchers can cause lower-status HEIs to borrow policies and structure of higher-status HEIs, creating a ground for mimetic isomorphism. Many universities have started to apply rankings in their strategic planning to improve their positions or imitate those universities which hold top positions in rankings. This application of rankings has caused the process of internalization of rankings, as an accepted standard in higher education (Saunders and Espeland, 2009).

Coercive isomorphism is usually caused by government policy aimed at increasing the position of national HEIs in the global rankings. Although initially, rankings have appeared as information for students, they have become a policy instrument for many governments (Dill, 2009). Concerned by the low ranking position of their universities, many countries in Asia and Europe have established excellence in initiatives to increase research activities among the universities and encourage their movement up global university rankings (Enders, 2012; Hazelkorn, 2009; Lo, 2014; O’Connell and Saunders, 2013; Rauhvargers, 2013; Salmi, 2009; Thakur, 2007). Furthermore, it was found by Hazelkorn (2009) that countries with a weak quality assurance system apply rankings to measure student satisfaction, the quality of teaching, and the learning environment and facilities. Thus, the use of rankings for quality assurance purposes has established a correlation between rankings and accreditation (Hazelkorn, 2009). Thus, government policy encourages the imitation of large higher-status universities by small and lower-status ones.

As regards to the normative isomorphism, it could be expected that the role of professionals and professional organizations, particularly, quality assurance bodies, is to counterbalance rankings. However, the review of the literature suggests that market influence has been more potent in driving prestige over quality. Thus, many leaders of higher education institutions have been seduced by rankings, while the role of quality assurance bodies in reducing this influence has not been highlighted in the previous literature.

The influence of the Anglo-American model was noticed on the curriculum of universities worldwide: more English language programs have been created to attract international students, and many study programs were harmonized with the US or European higher education systems like Bologna (Hazelkorn, 2009). However, the Anglo-American model’s most significant influence is the increased focus on research in the English language in high-impact journals, primarily US and UK journals (Ishikawa, 2009; Rauhvargers, 2013). Because rankings measure research by citations in high-impact Anglo-American journals, rankings have elevated the status of Anglo-American research publications over others (Ishikawa, 2009; Rauhvargers, 2013). Thus, they have influenced the course of research undertaken at universities worldwide. Thus, rankings increase the research orientation of many universities, and rankings criteria lead them to adopt an Anglo-American model of research university.

On the positive side, the meta-analytic review shows that isomorphism indeed improves the actual performance of organizations (Hengens and Lander, 2009). Furthermore, some authors suggest a possibility of American universities losing their ground in the global rankings. The recent report by Wilkinson (2018) showed that universities from leading Asian economies, including China and South Korea, have been successfully climbing the world university rankings. Li et al. (2011) found evidence of gradual improvement of large non-US universities in rankings, including lower-income countries. In connection with this, Lo (2013) argued that rankings could be used to strengthen the strategic position of individual higher education systems at the regional level.

The fact that organizations follow models and standards in response to pressures from governments or professional organizations suggests that organizations could adopt models and standards on the surface, without introducing them into real practice. This does not suggest that the adopted models and standards have no consequences: “The fact that these changes may be largely ceremonial does not mean that they are inconsequential.” (DiMaggio and Powell, 1983, p. 150). The following outcome is predicted by DiMaggio and Powell (1983): “In contrast, we expect substantive internal changes in tandem with more ceremonial practices, that greater homogeneity and less variation and change.” (p. 155). Empirical research in the West has shown that ceremonial policies are institutionalized over time (Bromley and Powell, 2012). However, some scholars believe that this is a temporary process, at the end of which is a varied adoption of global standards. Considering the practices of superficial (surface) compliance, King (2010, pp. 592–593) proposed that the “diffusion of global standards” of excellence will take place. Similarly, Hasse and Krücken (2014) suggested that the processes of change in higher education should be considered as the process of the diffusion of global models, which are impeded at the institutional level. Beerkens (2008) and Vaira (2004) suggested that local actors can change the models at the local level or adopt the models on the surface.

While the pressures to isomorphism exist at global, national, and local levels of higher education landscape (e.g. Vaira, 2004), this paper focuses on the role of national policy and stakeholders in producing pressures on HEIs to adopt similar standards and models.

3. Methods and design

The analysis was conducted in three stages. First, the role of rankings in the efforts of the Kazakhstani government in the field of higher
education internationalization was assessed. Second, in the analysis of the nationwide rankings by the two Kazakhstani accreditation agencies, the criteria of QS WUR, the ranking system targeted by the State Program of Education Development of Kazakhstan, were compared against the core criteria and indicators of national rankings. Special attention was paid to the extent to which the national rankings applied the QS WUR approach, which is research, employability, and internationalization.

Finally, at the university level, HEIs’ development strategies were analyzed for the presence of QS WUR criteria. In the analysis of university development strategies and/or action plans, conventional content analysis (Hsieh and Shannon, 2005) was manually carried out by the researcher. Initially, the development strategies and/or action plans were read by the researcher to gain the whole meaning of the texts. Further, the passages of the texts of the development strategies or action plans were found that mentioned the words “rank” or “ranking(s).” Then, these passages were analyzed in terms of common patterns. As a result, an initial coding scheme (Hsieh and Shannon, 2005) was developed. Finally, categories received definitions and were reorganized.

The study analyzes a group of universities with a special status, which allows them to include the word ‘national’ in their title, thus being referred to as a ‘National University.’ This choice was made predominantly because this group of universities receives increased funding compared to regular state universities or corporate universities. The present study analyzes nine universities from the list of ten national universities in the report by Kazakhstani analytical agency, JSC Information-Analytics Center (2018), because the researcher was able to find the information required for research on nine of the ten universities.

3.1. The legal status of “National Universities” and their funding

According to the Presidential Decree of the Republic of Kazakhstan No. 648, dated 5 July 2001, six universities were initially awarded a special status. Later, few more universities were added to the list. According to the JSC Information-Analytics Center (2018), there were ten HEIs with a national status at the moment of manuscript preparation. Eight universities provided either development strategies or strategic action plans, or sometimes both. At the time of writing this manuscript, the researcher could not find a development strategy or action plan, as well as information on the mission and vision of Kazakh National University of Arts. In the case of T. K. Zhurgenov Kazakh National Academy of Arts, the researcher could not find the Academy’s development strategy or action plan. However, the mission and vision statement of the Academy and description of main development priorities were present on the website, so the Academy was included in the study. Of the nine universities in the group, two (L.N. Gumilyov Eurasian National University and Al-Farabi Kazakh National University) are general (non-specialized) HEIs that encompass a wide range of disciplines from humanities to science. At the same time, the remaining seven HEIs have a specialized focus (see Table 1).

The functioning of these universities is subject to the Regulation on Institutions of Higher and Postgraduate Education with Special Status (Regulation No. 66), the latest version of which was adopted on 14 February 2017. The main provisions of Article 3 of this law require that institutions with special status guarantee compliance with the world standards of education, provide regular monitoring of international developments in global education and science, and policy recommendations for the development of higher and postgraduate education of Kazakhstan. Furthermore, special status means not only increased funding but also suggests more independence in matters of financial management. Article 4 of the law provides for increased salaries for faculty and management of HEIs with special status. (Regulation No. 66, 2017)

In order to understand the prioritized position of national universities in state funding, let us examine the allocation of state educational grants, which provide funding for educating sections of the student population (for example, talented or high-achieving students, or students from rural areas, or orphan students).

Among the top-15 HEIs, which received educational grants in 2016, five national universities (Al-Farabi Kazakh National University, L. N. Gumilyov Eurasian National University, Satpayev Kazakh National Technical University, Abai Kazakh National Pedagogical University, and Satpayev Kazakh National Research Technical University) accounted for 26 % of the total amount (Aulbekova, 2017) (see Fig. 1).

The fact that five national universities accounted for 26 % of the TOP-15 of state educational grants illustrates their prioritized position in the state policy of Kazakhstan. It makes them the second most funded group of universities in Kazakhstan after Nazarbayev University, which is another state project, dedicated to the development of an autonomous research university. Nazarbayev University has a different legal status, and it is not participating in any global rankings at the time of writing this paper, which is the reason for excluding it from the analysis.

The documents used in the analysis were obtained from official websites of the universities under study. The purpose of the next section is to analyze the role of rankings in Kazakhstani higher education policy.

4. Coercive and normative isomorphism: government policy and accreditation agencies

4.1. Development of coercive isomorphism in Kazakhstan

The analysis in the Theoretical Framework section reveals how isomorphic pressures lead to the promotion of a single model of the Anglo-American university, supported by the criteria of the global university rankings. The current section will show that, by using global

### Table 1

The list of universities with special status analyzed in this study.

| No. | Name of HEI and abbreviations                              | Type                        | Date of adoption of the university development strategy and/or action plan | Period for which the strategy/plan is valid |
|-----|-----------------------------------------------------------|-----------------------------|--------------------------------------------------------------------------|--------------------------------------------|
| 1   | L. N. Gumilyov Eurasian National University              | General (non-specialized)   | 2018                                                                     | 2018–2020                                  |
| 2   | Al-Farabi Kazakh National University                     | General (non-specialized)   | 2017                                                                     | 2017–2021                                  |
| 3   | Kazakh National Agrarian University                      | Specialized in agrarian science | 2019                                                                      | 2019–2023                                  |
| 4   | Satpayev Kazakh National Research Technical University (later renamed into Satbayev University) | Technical                   | 2016                                                                     | 2017–2021                                  |
| 5   | Asfendiyarov Kazakh National Medical University          | Specialized in medicine     | 2018                                                                     | 2017–2021                                  |
| 6   | Abai Kazakh National Pedagogical University              | Specialized in teacher training in a variety of fields | 2018                                                                     | 2018–2025                                  |
| 7   | T. K. Zhurgenov Kazakh National Academy of Arts          | Specialized in arts         | n/a                                                                      | n/a                                        |
| 8   | Kurmangazy Kazakh National Conservatory                  | Specialized in music        | 2018                                                                     | 2019–2025                                  |
| 9   | Kazakh National Academy of Choreography                  | Specialized in choreographic art | 2018                                                                     | 2018–2025                                  |

**Note:** Adapted from JSC Information-Analytics Center (2018) and universities’ development strategies.
rankings as a policy instrument, the Kazakhstani government has been supporting the coercive type of isomorphism in Kazakhstani higher education.

It was mentioned earlier that Kazakhstan is the only Central Asian country, which is a signatory of the Bologna process (Smolentseva et al., 2018). Furthermore, Kazakhstan is the country that has gone furthest in the neo-liberal higher education change in the post-Soviet region, for example, by turning some HEIs into joint-stock companies (Smolentseva et al., 2018, p. 13). Among the post-Soviet countries, Kazakhstan has the highest level of privatization in the higher education sector (Smolentseva et al., 2018). Non-state HEIs occupy little share in terms of student enrollment in all post-Soviet countries, except Kazakhstan, where 52% of students studied in private HEIs in 2015 (Smolentseva et al., 2018, p. 13).

The internationalization of Kazakhstani higher education has been a significant priority in the educational sphere. The Kazakhstani government and universities pay significant attention to their position in global university rankings, using such rankings as the QS WUR to promote Kazakhstani HEIs. Influenced by global university rankings, Kazakhstani HEIs prefer Western universities as partners for cooperation (Kim and Troitsky, 2016).

Kazakhstan first applied global rankings as a policy tool to choose universities for its large-scale elite government program, named Bolashak, which provided scholarships for Kazakhstani citizens to study abroad. Through highly selective competition, several hundreds of students received scholarships to study for several years abroad and obtain full-time degrees from international universities. Through this program’s development, the program administration wanted to make sure that government funding was spent on good-quality education for the selected candidates (Sagitinteva and Jumakulov, 2015). As a result, a list of approved universities was created based on the Times Higher Education (THE) World University Rankings and QS WUR (Sagitinteva and Jumakulov, 2015).

In 2010, Kazakhstan adopted a strategic document, named the State Program of Education Development, that set the aims, tasks and relevant assessment indicators for national education policy for the period 2011–2020 (hereinafter SPED 2011–20). The Introduction of SPED 2011–20 highlighted the role of education in economic development (MOES RK, 2011, p. 7). The program introduced a system of classification of higher education institutions, which included national research universities, national higher education institutions, research universities, universities and academies, and institutes. The program provided a plan for integrating education and science through the creation of research universities (MOES RK, 2011, p. 51).

This Program listed several target indicators, one of which was the inclusion of 2 universities in the ranking of best world universities. The program provided that one university should be included in the ranking by 2015 and 2 by the year 2020 (MOES RK, 2011). However, SPED 2011–20 did not specify any ranking system as well as any targeted position. Besides, the SPED suggested the financial support of the development of national rankings, that would be independent (MOES RK, 2011, p. 51). The creation of a national ranking system in Kazakhstan will be discussed separately in Section 4.3.

Later, the State Program of Education and Science Development (hereinafter SPESD 2016–19) was adopted for the period from 2016 to 2019. This program set a specific goal to include 11 Kazakhstani universities in the QS WUR by the year 2017, and 16 universities by the year 2019 (MOES RK, 2016) (see Table 3). Similarly to the SPED 2011–20, this task was listed not as a criterion within the Program itself but as an overarching target indicator for the Program’s fulfillment.

In terms of quantity, the target indicators of SPED 2011–20 and SPESD 2016–19 were not fulfilled as planned. First, the target indicators set in the SPED 2011–20 were unclear. As it was mentioned, it did not indicate any ranking system or desired position for the Kazakhstani universities in rankings. By contrast, SPESD 2016–19 specifically outlined the number of universities to be included in rankings and the desired positions ranges for them (Table 3). Furthermore, it targeted a concrete ranking system – QS WUR. However, only ten universities were included in 2020 in the QS WUR out of the planned 16 (see Table 4).

However, positive changes are noticeable such as the fast pace of Al-Farabi Kazakh National University in the QS WUR rankings, rising from position 236 in 2017 to 165 in 2021 (see Table 4). Thus, the rise of KazNU in QS WUR approximated the goal of having two Kazakhstani universities in the list of QS WUR top-200. Furthermore, two more universities were included in the QS WUR ranking, increasing the overall number of universities up to 11 in QS WUR-2021 (Table 4). However, it is vital to notice that except for KazNU, the rest of HEIs in 2021 are below their positions in 2017 (Table 4). Even though not all target indicators set in both programs were achieved, the involvement of Kazakhstani universities increased, especially with the rankings represented by the QS agency. First, QS Emerging Europe and Central Asia (hereinafter – QS EECA) included 24 Kazakhstani HEIs in 2018 (MOES RK/IAC, 2018). Furthermore, in the same year, Times Higher Education Ranking (hereinafter – THE) included 2 Kazakhstani universities for the first time (MOES RK/IAC, 2018). According to the latest THE-2020 rankings, Al-Farabi Kazakh National University and L.N. Gumilyov Eurasian National University held a 1001+ position out of 1400 universities worldwide. However, it is vital to notice that except for KazNU, the rest of Kazakhstani HEIs in QS WUR 2021 are below their positions in QS WUR 2017 (Table 4).
Table 2
Targeted positions in the QS WUR of the State Program of Education Development of Kazakhstan until 2025.

| Name of indicator/year | 2018 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 |
|------------------------|------|------|------|------|------|------|------|
| Number of Kazakhstani HEIs in the QS-WUR top-200 | 0    | –    | 2    | 2    | 2    | 3    |      |

Table 3
Target indicators of the State Program of Education and Science Development of Kazakhstan 2016-19: position and number of HEIs in the QS WUR.

| Position/year | 2017 | 2019 |
|---------------|------|------|
| Top 200       | 0    | 2    |
| Top 300       | 2    | 2    |
| Top 500       | 3    |      |
| Top 701+      | 7    | 9    |

The newly adopted State Program of Education Development until 2025, approved by the government on 27 December 2019, sets a target indicator to get 3 Kazakhstani universities in top-200 by 2025. However, it does not set a target of increasing the number of universities in the QS WUR list as the preceding Program for 2016–19 (MOES RK, 2019). Besides, this indicator was not listed as a target indicator like in previous programs but was among the quality assurance sub-indicators. However, the current program is more ambitious by setting the target to include three universities in the range of QS WUR top-200 by the year 2025 (Table 2).

Kazakhstani researchers have earlier discussed the methodology of rankings, linking them with employability (Nametov and Koval, 2011), quality assurance or benchmarking (Konuratova, 2018), entrepreneurship education (Uvaleyeva et al., 2019), attracting students and raising international status (Zhusupova et al., 2010).

The academics Begalinov and Nalivayko (2014) referred to the QS WUR as evidence of international recognition of Kazakhstani educational reform. They quoted Ben Sower, Head of the Quacquarelli Symonds Intelligence Unit, as follows: "...the appearance of two Kazakhstani universities in Top-400 this year is a bright example of the efficiency of stable investments in higher education" (Begalinov and Nalivayko, 2014, pp. 177–178). By contrast, Kazakhstani sociologist Gurevich (2010, p. 107) stated, "We hardly need the building of an educational and scientific system with a beautiful façade, but without a reliable foundation."

The analysis of the strategic policy documents in education reports the ambitious aims of Kazakhstan to move its universities in the global rankings. Overall, the involvement of Kazakhstani universities increased in the rankings, but their positions have worsened, except for KazNU, which did a dramatic climb in the last four years. However, the focus on QS WUR is unusual, although it might be convenient to target a ranking system from the perspective of Kazakhstani policymakers. The QS agency’s role in supporting professionalization and normative isomorphism among Kazakhstani HEIs is discussed in the next section.

4.2. The development of the various QS ranking systems and the influence of QS agency in Kazakhstan

In response to multiple critiques of its methodology (for example, Altbach, 2012), the QS rankings have demonstrated its diversification (Table 5). However, while some criteria have been added on the surface, core criteria have been reused in different QS ranking systems (see Table 5). Thus, while the attempt to diversify assessment by the QS rankings can be viewed positively, the most influential criteria have remained unchanged. The use of the same components in different rankings produces an effect that can be described as six of one, half a dozen of the other. The current section will discuss the professionalization of rankings in Kazakhstani higher education, supported by the QS agency. The QS is actively involved in the promotion of the QS ranking system among Kazakhstani universities. The QS agency activities increase the influence of QS ranking and their criteria on Kazakhstani universities.

Since the QS WUR rankings have received much recognition, the Quacquarelli Symonds company has since implemented a five-star rating system, called QS Stars. QS Stars is an evaluation system that, according to the website of the company, is aimed at overcoming the limits of rankings and helping smaller and/or specialized HEIs receive a fairer assessment. QS Stars consists of four main aspects, as measured by the QS WUR, and additionally includes some indicators that belong to four categories: learning environment, arts and culture, inclusiveness, and specialist criteria. The universities extended their trust to this new QS product. Specifically, four Kazakhstani universities requested to be audited and assessed by QS Stars in 2018: Al-Farabi Kazakh National University; Karaganda State Medical University; D. Serikbayev East Kazakhstan State Technical University; and Kazakh National Women’s Teacher Training University (MOES RK/IAC, 2018).

Furthermore, two international-scale conferences were conducted jointly by QS and L. N. Gumilyov Eurasian National University in the fall of 2019. First, on September 19–20, 2019, the conference and exhibition titled “Journey to Global Prominence: Harmony of Human Heritage and Advanced Technology” received academics from 36 countries (QS Worldwide, 2019). Later, on 15 October 2019, Vytautas Magnus University, Lithuania in partnership with L. N. Gumilyov Eurasian National University and QS held an international summit titled “Enhancing Visibility through International Cooperation: Mobility, Recognition, Branding” (QS in Conversation, 2019) This is the evidence of professionalization of rankings in Kazakhstani higher education, supported by the QS agency. The QS is actively involved in the promotion of the QS ranking system among the Kazakhstani universities. The

Table 4
Positions of Kazakhstani universities in the QS WUR in 2017-2020.

| No. | University/Year | 2017 | 2018 | 2019 | 2020 | 2021 |
|-----|-----------------|------|------|------|------|------|
| 1.  | Al-Farabi Kazakh National University | 236  | 236  | 220  | 207  | 165  |
| 2.  | L. N. Gumilyov Eurasian National University | 345  | 336  | 394  | 418  | 357  |
| 3.  | Sarbayev University | 411–420 | 411–420 | 464  | 561–570 | 541–550 |
| 4.  | Abai Kazakh National Pedagogical University | 501–550 | 491–500 | 481  | 561–570 | 601–650 |
| 5.  | Kazakh National Agrarian University | –   | –    | 651–700 | 651–700 | 591–600 |
| 11. | NJSC KIMEP University | 601–650 | 501–550 | 480  | 491  | 490  |
activities of the QS agency increase the influence of QS rankings and their criteria on the leadership of universities of Kazakhstan.

Overall, global university rankings are actively used by the Kazakhstani government as a policy instrument. Even in the newly adopted State Program of Education Development until 2025, including three universities in the top-200 list of QS WUR rankings is under the section of quality assurance. This influence of rankings is actively supported by the QS agency, which promotes their rankings and other products among the professionals of Kazakhstani higher education.

4.3. The National Rankings of Kazakhstan by IQAA and IAAR

The current section will show that Kazakhstani higher education policy is reinforced by the introduction of national rankings by two Kazakhstani accreditation agencies; the structure and the composition of both are similar to those of the global rankings. The section will show that the nationwide rankings conducted by the influential accreditation agencies hold a normative power over Kazakhstani HEIs. Furthermore, Kazakhstani national rankings reinforce the power of global rankings by applying the same or similar criteria.

Kazakhstani public (parents, students, HEIs, and policymakers) needed better information on HEIs. It was also suggested in SPED 2011-20, that independent national rankings need to be supported (SPED 2011-20, p. 51). In 2001, a pilot national ranking of Kazakhstani universities was conducted by Briller and Iskakova (2004) in cooperation with an independent Almaty Assessment and Evaluation Institute. The pilot ranking sought to provide information to the public and train Kazakhstani educational specialists in the technology of ranking. The workshop involved different stakeholders from Kazakhstani HEIs, including Western experts. Initially, only 13 universities agreed to present their data for the pilot ranking (Briller and Iskakova, 2004).

In 2006, the National Academic Centre of Kazakhstani Ministry of Education (NAC) conducted the first nationwide ranking of Kazakhstani HEIs, which was developed and published during 2004–2005 (Kalanova, 2008). The rankings were designed as a tool for public perception, including government, and a stimulus for national competition and institutional quality assurance at Kazakhstani universities (Kalanova, 2008, p. 303). The rankings were created according to the Berlin Principles (Kalanova, 2008). Also, international quality assurance trends and foreign ranking methodologies were taken into account while designing the rankings. Subsequently, the rankings were disseminated by the national print media and government websites. (Kalanova, 2008)

Currently, national rankings of Kazakhstani HEIs are conducted by two national accreditation agencies – Independent Agency for Quality Assurance in Education (hereinafter – IQAA) and Independent Agency for Accreditation and Rating (hereinafter – IAAR, 2019). These agencies were created due to Kazakhstan's membership in the Bologna Process. So, their primary task is ensuring quality along with the Bologna principles. There is a National Register of Accreditation agencies, which initially included two Kazakhstani and eight international accreditation agencies that can confer accreditation: the Independent Agency for Quality Assurance in Education (IQAA); and the Independent Agency for Accreditation and Rating (IAAR). International agencies are entitled to accredit study programs only, while Kazakhstani agencies conduct both institutional and program accreditation (Organisation for Economic Cooperation and Development OECD, 2017). While the Organisation for Economic Cooperation and Development (OECD) expert review criticized the limited role of international agencies (Organisation for Economic Cooperation and Development OECD, 2017), this special role made the two Kazakhstani agencies extremely influential stakeholders in Kazakhstani higher education policy. Recently, three new Kazakhstani agencies were included in the Register, two of them specialized in healthcare and engineering educations. However, due to the recent establishment, none of these agencies conduct any rankings of Kazakhstani HEIs.

Besides, the IQAA also practices a nationwide ranking of study programs and technical and vocational schools. The IAAR conducts a national ranking of universities in Kyrgyzstan since 2018 (Shunkeyev and Niyazova, 2019). The analysis of rankings of both agencies revealed many similarities with the approach used in the QS WUR.

In 2019, the national ranking of universities by the IQAA comprised

Table 5
Main criteria that are repeatedly applied in several QS ranking systems.
Source: Adapted from Quacquarelli Symonds website (https://www.topuniversities.com/university-rankings).

| Name of criteria | Used in the methodology of | What is measured | Source |
|------------------|-----------------------------|------------------|---------|
| Academic reputation | QS WUR/QS WUR by Subject/QS Stars | Teaching and research quality | A survey among higher education experts |
| Employer reputation | QS WUR/QS WUR by Subject/QS Graduate Employability/QS Stars | Employability of university graduates | Survey among employers |
| International faculty ratio | QS WUR/QS Stars | Internationalization | Data submitted by university |
| International student ratio | QS WUR/QS Stars | Internationalization | Data submitted by university |
| Faculty/Student ratio | QS WUR/QS Stars | Teaching quality | Data submitted by university |
| Citations per faculty | QS WUR/QS Stars | Research quality | Scopus database |
| Citations per paper | QS WUR by Subject/QS Stars | Research quality | Scopus database |

Table 6
Components of IQAA criteria and their weightings (2019).
Source: Adapted from the IQAA website (https://iqaa-ranking.kz/en/).

| No. | Name of criteria | Weight | Name of included indicators |
|-----|-----------------|--------|---------------------------|
| 1.  | Reputational assessment of universities by experts | 15 % | Indicator 1. The contingent of students (100 points) |
| 2.  | Survey of employers and state bodies | 15 % | Indicator 2. The results of student training and the number of study programs implemented at the university (135 points) |
| 3.  | Quality of academic resources | 70 % | Indicator 3. Academic staff/ faculty (120 points) |
|     |                 |        | Indicator 4. Research and development (R&D), innovative work (155 points) |
|     |                 |        | Indicator 5. International cooperation (120 points) |
|     |                 |        | Indicator 6. Information support (70 points) |
fewer criteria (it has only three; see Table 6) than the QS WUR (which has six; see Table 7). Two criteria of QS WUR – academic and employer reputation – are similar to "reputational assessment of universities by experts" and "survey of employers and state bodies," although they have a lesser weighting in the IQAA rankings than the QS WUR. The third criterion is "quality of academic resources," which has six key indicators, three of which correspond with the remaining QS WUR criteria: "contingent of students," "research and development (R&D);" and "international cooperation." These indicators correspond to the "faculty/student ratio," "citations per faculty," and "international faculty ratio/international student ratio" criteria of the QS WUR. The IQAA criteria, however, include a more comprehensive number of input sub-indicators; they also calculate such data as citations, both per paper and faculty, the number of international students and faculty, and the number of inbound and outbound students.

Another agency that accredits HEIs in Kazakhstan is the IAAR, which also conducts its nationwide ranking of universities in Kazakhstan. Table 8 lists the criteria for its national rankings, which are gathered by the IAAR from universities, based on their Bachelor's, Master's, and Ph.D. programs.

The IAAR rankings do not include academic and employer reputation. The competitiveness of graduates is measured using the data on their employability status for one year after graduation. The research is measured using the h-index instead of citations and the number of registered patents. The criteria for international faculty, as well as exchange students, correspond with the criteria for international students/faculty ratio in the QS WUR. The quality of teachers and students is also measured by quantitative data such as teachers' scientific degrees or the number of scholarship students. However, despite these differences in approaches to measurement, the rankings remain based on employability, research, and student/teacher components as the main criteria for a university assessment.

To sum up, the IQAA national rankings are similar to QS WUR, based both on the choice of main criteria and indicators. The IAAR rankings also employ similar criteria but choose a different method of calculation. In general, both rankings stress the importance of research, employability, and internationalization through their rankings.

As discussed at the beginning of this section, both agencies that conduct national rankings were established due to Kazakhstani membership in the Bologna process. As quality assurance agencies, their task could be to counterbalance the influence of the market and ensure the quality of higher education in Kazakhstani context. Seemingly, instead of balancing the influence of the market and the ranking systems, both national rankings reinforce similar criteria as the global rankings. Therefore, the purpose of the national ranking by both agencies that copy the global rankings is unclear.

The analysis of higher education policy in Kazakhstan revealed the role of rankings in a leading government scholarship program Bolashak and the positions and number of Kazakhstani HEIs in QS WUR as a target indicator in the state education policy programs. It was also revealed that in addition to the QS WUR ranking, many Kazakhstani universities participate in the QS Stars rating. Among the regular events, organized by QS in Kazakhstan and other countries, two large-scale conferences were conducted in 2019 jointly with leading Kazakh HEIs. The national rankings conducted by the two influential Kazakhstani accreditation agencies are similar to the QS WUR by the focus on research, employability, and internationalization. They also use the same or similar criteria. The next section will address the development strategies and/or action plans of nine Kazakhstani HEIs with a special status of a "National University."

5. University development strategies and/or action plans

The current section will show that resonating with the SPED 2016-19, universities' development strategies focus on the QS WUR ranking system. The university strategies' analysis reveals the adoption of an aspirational or visionary model of a research university by all the comprehensive universities in the group under study. Overall, the agendas of research and employability prevail in the development strategies and/or action plans, underpinned by the criteria of rankings included as target indicators in the development strategies or action plans of all universities under study, independent of their type (general (non-specialized) vs. specialized HEI).

The first typical pattern found in the development strategies was that two general (non-specialized) and four specialized universities use rankings in self-assessment or SWOT analysis. All six universities target certain positions in the rankings (see Table 9). Out of these six, five universities specifically target a specific position in QS WUR. For example, a specific position in the QS WUR is listed as one of the key development priorities of L. N. Gumilyov Eurasian National University (hereinafter ENU): "Aspiring to play a leading role among Kazakhstani and world universities by gaining a high rank in national and international rankings" (2020 Development Strategy of L.N. Gumilyov Eurasian National University, 2018, p. 6). In its development strategy, before stating its mission, AlFarabi Kazakh National University

| No. | Name of indicators | Examples of included parameters | Overall weight |
|-----|-------------------|---------------------------------|---------------|
| 1.  | A high concentration of talented students, teachers, and researchers | 1) Students who study from scholarship 2) Teachers with scientific degrees | 25 % |
| 2.  | Academic mobility | Teachers with received prestigious national awards Inbound exchange students International faculty | 25 % |
| 3.  | Competitiveness of specialty graduates | The number of graduates employed in the first year upon graduation h-index based on ISI Web of Knowledge, Thomson Reuters h-index based on Scopus | 25 % |
| 4.  | Competitiveness of scientific publications of teachers, undergraduates and doctoral students in the specialty | Registered patents |
(hereinafter KazNU) stated its objective to enter the QS WUR top-200 universities: "Enter the Top 200 leading research universities in the world and become the engine of progressive economic, social and cultural transformations in society" (Development Strategy Al-Farabi KazNU for 2017-2021, 2017 p. 8). Kazakh National Agrarian University (hereinafter KazNAU) Vision Statement contains the goal to enter the top-300 of QS WUR by 2023 (p. 36). Thus, the dominance of the QS WUR as a key target is evident. The remaining three universities, which do not target any position in international rankings, belong to the group of arts/musical HEIs. In its development strategy, Kurmangazy Kazakh National Conservatory paid attention to the fact that the category 'Performing Arts' only appeared in the QS WUR by Subject only in 2016.

The mission statements of all the universities under study are to provide competitive specialists. For example, the mission statement of ENU stresses its role as a "leading research and education centre" and preparing specialists, which are needed for the economic development of the country (2020 Development Strategy of L. N. Gumilyov ENU, 2018, p. 6). Similarly, the idea of preparing specialists for the labor market is presented as the first mission in KazNU's mission statement and then is repeated in its vision statement (Development Strategy Al-Farabi KazNU, 2017, p. 8). Similar statements are made by KazNAU and S. D. Asfendiyarov Kazakh National Medical University (hereafter KazNMU). The two pedagogical universities from the study stress the importance of teachers for the human capacity of the country. For example, the mission statement of Abai Kazakh National Pedagogical University (hereafter Abai University) references the preparation of "XXI Century teachers" (Strategic Plan for the Development of AbaiKazNPU for 2018-2025, 2018, p. 11). The universities specializing in the arts also focus on training specialists. Thus, the employability criteria of the QS WUR are a key indicator that can influence the development of these universities. Only Satbayev University states a slightly different mission for "research and excellence in education" (University 2025 Roadmap, p.2).

Two university models are dominant in the vision statements of all universities. The first is a comprehensive research university model. Specifically, the vision statement of ENU sets out that ENU should "become a national research university focused on the close integration of education, science, and industry" (2020 Development Strategy of L. N. Gumilyov ENU, 2018, p. 6). The vision statement of Sathbayev University claims that it intends to be "a prominent international research university" (University 2025 Roadmap, 2019, p. 3). By 2025, Abai University aims to become "the leader of teacher education in the CIS" through transforming leading research into the best educational programs (Strategic Plan for the Development of AbaiKazNPU for 2018-2025, 2018, p. 23). Two universities mention the idea of a "world-class research university." Specifically, the KazNU vision statement sets out that it should become a "world-class research university," which provides "integration of education, science, and innovation" (Development Strategy Al-Farabi KazNU, 2017, p. 8). The vision statement of KazNAU presents it as an "elite innovative university," followed by the strategic goal to become a "World-Class National Research University" (Strategy of KazNAU, 2019, p. 36–37). Furthermore, the KazNAU vision statement sets out the tasks of "integration of education, science, and production" (Strategy of Kazakh National Agrarian University Development Through to 2023, 2019, p. 38).

The second is a university model that combines education, science, and industry, comprising adjustments specific to the field of such universities' activities. Here, the role of research is complemented by industry cooperation. However, the role of science is mentioned in all of these vision statements, suggesting the importance of the research component for these vision statements. For example, the KazNMU vision statement sets out to achieve leadership at the national and regional levels in medical education, science, and clinical practice (Kazakh National Medical University Vision Statement, 2018). The vision statement of Kurmangazy Kazakh National Conservatory sets out the aim to become a "modern university of professional music education, science, and enlightenment" (Strategy of the Kazakh National Conservatoire named after Kurmangazy for 2019-2025, 2018, p. 5). Kazakh National Academy of Choreography, meanwhile, sees its role as an "educational, scientific and creative center" (Strategy of Kazakh National Agrarian University Development Through to 2023, 2019).

Thus, employability and research drive the development of all universities from the group. The fulfillment of the universities' missions (employability) and visions ("research university," "education, science, and industry model") is strongly linked with the university's achievement in international and national rankings. In some cases, universities specifically target certain positions in rankings. Specifically, five universities out of the nine under study target certain positions in the QS WUR as the primary goal, which drives the university development strategy. The other half of universities include rankings in their self-assessment in the introduction chapters of their development strategies.

Several common indicators were found in all the universities' development strategies, both those aiming for specific positions in rankings and universities specializing in the arts (see Table 10).

These indicators show that the criteria of rankings guide the strategic development of universities in the areas of teaching, research, employability, and internationalization. Thus, global rankings, especially the QS WUR, will play an important role in the development of leading Kazakhstani HEIs in the coming years.

The most striking common element in the analyzed universities was that orientation to research and employability was noted even in universities specializing in the arts and musical education. Two aspirational models dominate the vision statements of universities in the group: "an international research university"/"a world-class university;" and "education, science and industry" model. In both cases, research is included in all universities' development priorities, from general (non-specialized) to specialized. Research is even present in the sub-group of universities from the field of the arts or musical education. The relevance of research focus for the specialized universities, especially in the field of arts, is not clear from their strategies. A contradiction is noticeable between mission statements, which present the idea of preparation and training of graduates, and vision statements, which underline the importance of research. The vision statements suggest that

| University                                              | University type                        | Uses rankings in self-assessment or SWOT analysis | Targeted ranking      | Targeted position/year |
|---------------------------------------------------------|----------------------------------------|--------------------------------------------------|-----------------------|------------------------|
| L. N. Gumilyov Eurasian National University             | General (non-specialized)             | QS WUR, QS WUR, Webometrics, THE                 | QS WUR                | Top-300 by 2020        |
| Al-Farabi Kazakh National University                    | General (non-specialized)             | QS WUR                                           | QS WUR                | Top-200 by 2021        |
| Kazakh National University                             | Specialized in agriculture            | QS WUR                                           | QS WUR                | Top-300 by 2023        |
| Agrarian University                                     |                                        |                                                  |                       |                        |
| Satbayev University                                     | Technical                              | QS WUR, Webometrics                              | THE                   | Top-300 (year not specified) |
| S. D. Asfendiyarov Kazakh National University           | Specialized in medicine                |                                                  | QS WUR                | 700 + by 2019          |
| Abai Kazakh National Pedagogical University             | Specialized on pedagogy               | QS WUR, QS WUR, QS WUR, QS WUR, Webometrics THE  | QS WUR, QS WUR, QS WUR, Webometrics THE | 450 by 2025 |

Table 9
The presence of rankings in the development strategies of universities.
Source: Compiled by the author.
Kazakhstani national universities are going to increase focus on research in the future. The question arises why research is not included in the mission statements. Because analysis in the previous section revealed that influential stakeholders in Kazakhstani education put coercive and normative pressures on Kazakhstani HEIs, it is necessary to assess to what extent the claims in the vision statements are ceremonial.

6. Discussion

As it was discussed at the beginning of the paper, several common trends have characterized higher education policies of developed countries, especially in Europe and Asia. It was found by Vaira (2009) that EU universities have been subject to pressures to adopt a model of the US research university. Similarly to European countries, Kazakhstan became a signatory to the Bologna process and experienced the process of marketization in higher education (Smolentseva et al., 2018, p. 13). This approach’s outcome is the increased pressure on Kazakhstani HEIs to adopt either an international research university model or make research their development priority.

At the beginning of this paper, it was theorized that the use of global rankings in higher education policy could lead to increasing isomorphism. Furthermore, it was suggested that rankings drive the adoption of an Anglo-American model of a research university. Overall, the case study confirms the theory of isomorphism and the process of modeling among the analyzed universities. However, there is a noticeable difference in the types of isomorphism between international literature and the Kazakhstani case. International literature revealed more cases of coercive and mimetic isomorphism (Enders, 2012; Hazelkorn, 2009; Lo, 2014; O’Connell and Saunders, 2013; Rauhvargers, 2013; Salmi, 2009; Thakur, 2007; Sauder and Espeland, 2009; Marginson, 2006), while Kazakhstani universities under study have experienced coercive and normative pressures. The active role of the QS agency in Kazakhstan in a series of events in Kazakhstani HEIs reinforces the rankings’ normative power. Specifically, involvement of universities in international conferences, dedicated to targeting rankings and development of additional ratings by QS agency that use the same criteria as the QS WUR rankings, increase the professionalization of rankings among Kazakhstani HEIs. Thus, national rankings and the QS agency play an important role in increasing the influence of the criteria employed by the QS WUR on the development of a group of Kazakhstani HEIs under study.

As it was mentioned in the Introduction, quality assurance agencies are the bodies responsible for the quality assurance in the context of market competition. However, it was evident from the literature that the influence of rankings outweighs quality assurance agencies and drives universities’ development towards an Anglo-American research university model. Moreover, the findings of this study agree with Hazelkorn’s (2009) statement that in countries with weak quality assurance, rankings can play the role of a quality assurance instrument. Specifically, the findings revealed that the two national rankings conducted by quality assurance agencies not only do not counterbalance the global competition for prestige but reinforce it. Furthermore, the influence of these agencies fosters the normative power of national rankings in the Kazakhstani higher education system. Because national rankings were supposed to be independent by the State Program of Education Development 2011-20, the copying of the approach by international rankings seems to be against the initial purpose of these rankings and in contradiction with the supposed role of both agencies in quality assurance of Kazakhstani higher education.

In the international literature, it was argued that isomorphism leads to improvement in the performance of organizations (Heugens and Lauder, 2009). Currently, the results of Kazakhstani HEIs in rankings are mixed. Al-Farabi Kazakh National University rose in global rankings with high speed in the last years, having entered the top-200 of the QS WUR 2021 rankings. Thus, Al-Farabi Kazakh National University fulfilled the goal set in the SPED 2016-2019, which is to have at least two universities in the top-200 list of QS WUR. Furthermore, two Kazakhstani universities have been included in the THE rankings for the first time. More Kazakhstani universities have participated in QS WUR rankings and additional QS WUR products such as QS EECA and QS Stars rating. However, the previous target of 16 Kazakhstani HEIs to be included in the QS WUR rankings from 2016-19 was not fulfilled, as only ten were included during that period. Furthermore, the positions of the rest of HEIs in 2021 QS WUR rankings are below their positions in 2017. Despite the mixed results of Kazakhstani HEIs in the targeted

| Table 10 | Common indicators found in the development strategies of the universities under study. |
|----------|--------------------------------------------------------------------------------------|
| **Teaching** | The proportion of teaching staff with scientific degrees |
| **Research** | The number of articles in journals with an impact factor, indexed by Thomson Reuters and Scopus databases |
| **Employability** | The proportion of graduates employed in the first year upon graduation |
| **Internationalization** | The proportion of foreign students |
| **Other** | The number of students provided with accommodation out of the total number of students who have requested it |

Increasing the speed of the Internet
Allocation of library funds
The proportion of students and faculty with access to the Internet
The proportion of renewed/updated educational and research, medical and simulation software
Free public access to rare-text/full-text electronic music documents
Music disciplines provided with the use of multimedia technologies
The proportion of students with special educational needs
The proportion of students involved in concert and project activities
QS WUR rankings, the recently adopted SPED until 2025 increased the ambition by setting the target indicator to have three universities in the top-200 of QS WUR by 2025. However, the new SPED until 2025 removed specific targeting of a certain number of Kazakhstani HEIs to be included in QS WUR rankings, as well as targeting specific ranges in them. It is suggested that this decision's impact will result in increased funding of the selected universities to support them in the race for the top positions in the QS WUR rankings. Strong focus on internationalization is used to support the building of research universities, while the rest of the universities are predicted to be moved to the teaching tier with decreased funding. This poses a risk for institutional diversity in the Kazakhstani higher education landscape.

Overall, the findings confirm the concern of van Vught (2008) that government policy, accreditation, and rankings can lead to increased imitatation practices and less diversity in higher education. Specifically, it was suggested that rankings divide universities into research and teaching tiers (Hazelkorn, 2012; van Vught, 2008). It was also suggested that pursuing a variety of missions is critical for universities (Hazelkorn, 2012). Furthermore, some critical problems exist in Central Asian countries that rankings distract attention from, especially corruption (Heyneman, 2014). Therefore, the use of rankings as a policy instrument in developing post-Soviet countries is a problematic issue.

While research by European Commission (2016) on Central Asia showed the importance of rankings for the post-Soviet intraregional mobility, following Lo (2013), it is suggested the Kazakhstani government can use the QS WUR rankings to increase the visibility of Kazakhstani HEIs in the post-Soviet or Central Asian region. While rankings have increased visibility of Kazakhstani universities in Central Asia (European Commission, 2016), the sole orientation to rankings can mislead the course of higher education reform in leading Kazakhstani HEIs. However, considering that the actual improvement of universities was found mixed and the challenge of corruption complicating the Central Asian landscape of higher education (Heyneman, 2014), the criteria of the QS WUR ignore critical dimensions of university development in Central Asia, for example, ethical dimension. Therefore, it is recommended to ensure that the methodology of national rankings is more relevant to Kazakhstan's development needs than the global rankings.

7. Conclusion

The research findings allow concluding that rankings drive coercive and normative isomorphism by their application as a policy instrument in higher education policy in Kazakhstan and their influence on the methodology of the national rankings of the two leading Kazakhstani accreditation agencies. The isomorphic forces are strong among the high-status group of national universities in Kazakhstan, triggered by government policy and influential accreditation agencies. The significant dependence on both government funding and institutional accreditation by the IQAA and IAAR makes it hard for national Kazakhstani HEIs to avoid the ranking game. In the Kazakhstani case, all the universities either aspire to the visionary model of Anglo-American research university or increase their focus on research. In this case, the unique feature is the strong presence of the QS WUR ranking system, with the active support of the QS agency.

As mentioned earlier, even the formal adoption of standards and models has consequences (DiMaggio and Powell, 1983). Mission and vision statements of universities, as well as their strategic or action plans, are important policy documents that define the pathway of university, against which future self- and external evaluations are to be conducted. Thus, the strong presence of rankings as target indicators and their criteria in the strategic planning of national universities can lead to the internalization of rankings’ criteria with time.

As it was mentioned, the mission and vision statements contradict each other. While mission statements focus entirely on teaching, the vision statements present an idea of a “research university” or an increased research orientation. Therefore, the study has a limitation that prohibits it from stating that all universities under study will converge to an Anglo-American research university model. While development strategies are undoubtedly influential, they are not entirely decisive at the institutional level. Some scholars also suggested that local actors can change global models at the local levels or impede their influence through superficial compliance (King, 2010, Hasse and Krücken, 2014, Beerkens, 2008, Vaira, 2004). Therefore, the question remains of how National universities respond to the isomorphic pressures to follow the criteria of the QS WUR. In case of superficial adoption of the rankings' criteria, the unfulfillment of state education policy programs could be predicted. In case of the institutionalization of the rankings' criteria with time, the adoption of an Anglo-American research university model could be expected among many universities under study. Further research is required to assess the degree of compliance of daily university practices with the goals and target indicators set in the development strategies and plans of Kazakhstani national universities.

Author statement

The work was inspired by the Master's thesis about global rankings that I have defended in 2015 at Nazarbayev University, in Astana. However, the current paper was written by me from scratch in the summer of 2019, it is different from the thesis by the focus, conceptual framework and the data used.

Initially, my research supervisor Professor Sulushash Kerimkulova (Nazarbayev University) planned to co-write the paper with me, but she could not join the work due to her business. As a result, the conceptual framework was developed independently.

An early version of the manuscript was sent to Professor Heyneman, Editor-in-Chief of the International Journal of Educational Development, as a pre-submission inquiry. Following his kind feedback, work continued on the paper.

Reading the draft, Professor Kerimkulova provided valuable feedback on the paper including advice to use the recently adopted development strategies of Kazakhstani HEIs to test the conceptual framework. Unfortunately, despite the great inspiration and encouragement, provided by Professor Kerimkulova to me, during the meeting in August 2019, she refused to be cited as a co-author, motivating that she did not write the paper draft.

As a result, the work was carried out individually on all stages, with feedback from my supervisor Professor Kerimkulova, Professor Heyneman, and Reviewers.

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Appendix A. Supplementary data

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