

New University Reform of Korea – Towards the 4th Role of University

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Abstract This study introduces a new policy for university reform currently being implemented in Korea and reviews the theoretical discussions surrounding it. The policy, known as the “Glocal University 30 initiative,” involves the central government designating 30 universities and providing each with \$74 million USD. The aim is to encourage these universities to pursue internal innovation while fostering collaboration with local governments to drive regional development. Theoretically, this policy can be classified as an entrepreneurial activity of universities, but it differs from existing models in several key ways. First, it is an initiative that includes Tier 1 regions. Second, it is a cooperative model involving not only local authorities but also the central government. Third, it promotes collaboration with research and specialized institutions. Lastly, it demands a complete transformation of universities into new, innovative institutions. This distinctive nationwide effort highlights the growing importance of regional development as the “fourth role” of universities.

Keywords University reform, Glocal University 30, 4th role of university, regional development, entrepreneurial university

I. Introduction

Korean universities have played a crucial role in supporting the growth of the Korean economy. They have been a key source of both human resources and technological advancements. The Korean public believes this role will persist, as evidenced by the university enrollment rate, which has reached 76%.

However, Korean universities are now facing structural challenges, such as declining enrollment in regional institutions due to a shrinking school-age population and the weakening status of local universities. These issues are worsening over time. Additionally, there is an oversupply of universities relative to the number of students. While comprehensive solutions have been lacking, a

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new policy introduced in 2023 seeks to bring about both structural and qualitative changes within universities.

The new policy mandates not only the restructuring of universities but also qualitative improvements. It encourages universities to preemptively embrace trends such as technological convergence and digital transformation, while also promoting regional development. The policy calls for universities to expand their entrepreneurial activities, ensuring that institutional progress and regional development occur simultaneously. “”

This policy applies exclusively to universities located outside the Capital area, including Seoul Metropolitan City. Most of the renowned universities in the Capital are research-focused, distinguishing the Capital region as a hub for research-oriented universities, while local universities are encouraged to become entrepreneurial.

The concept of entrepreneurial universities emerged in the late 1990s, reflecting a trend of incorporating entrepreneurial activities—specifically, collaboration with industry—into the traditional roles of education and research. The OECD (2012, 2022) has recommended that member countries encourage universities to contribute more significantly to regional development alongside these functions. While Korea’s recent university policy aligns with the OECD’s recommendations, there are notable theoretical differences.

This study introduces Korea’s new university policy, exploring the reasons for its emergence and assessing its progress. Additionally, it examines how the policy differs from existing theoretical frameworks. The structure of the paper is as follows: Chapter 2 reviews the theoretical discussion; Chapter 3 outlines how the new policy diverges from previous policies in Korea and analyzes its socioeconomic background; Chapter 4 examines universities’ responses to the new policy; and Chapter 5 explores the theoretical implications. Finally, Chapter 6 summarizes the fundamental limitations of the policy and discusses the conditions necessary for its success.

For clarity, the terms “local” and “region” are defined as follows: In Korea, “local” refers to areas outside the Capital region, which includes Seoul and its surrounding areas. Tier 1 local authorities are provinces and metropolitan cities, referred to as regions in this paper, while Tier 2 local authorities are referred to as local. When a distinction is unnecessary, “local” is used.

II. Theoretical Backgrounds

1. New Trends in Universities – Entrepreneurial University

Since the 1990s, universities, which had traditionally focused on education and research, have increasingly integrated entrepreneurial activities as a third core function. Rothaermal et al. (2007), in their analysis of 173 papers on university entrepreneurial activities from 1981 to 2005, noted a significant rise in research in this field after the 1980 Bayh-Dole Act in the U.S. This law recognized universities’ ownership of federally funded research outcomes. During the 1990s, the U.S. government implemented policies to bolster world-class universities through strategic investment (U.S. President’s Committee, 1992, 1996). Simultaneously, universities began expanding profit-generating activities due to reduced governmental financial support (Barrow, 1996).

Initially, entrepreneurial activities were viewed as supplemental (Dill, 1995; Keast, 1995) rather than fundamental functions, but over time, this perception shifted, and these activities became recognized as a third essential function (Clark, 1998; Röpke, 1998). The OECD (2012) outlines the components of an entrepreneurial university, which include leadership and governance; organization, people, and incentives; teaching and learning; entrepreneurship development channels; external relations; international activities; and impact measurement as shown in Table 1. Eizaguirre et al. (2020) evaluated the entrepreneurial activities of Spanish universities across 18 activities, including incubators, technology parks, academic and student spin-offs, research contracts, joint ventures, networking, entrepreneurial education, and student outcomes.

Table 1. Activities of Entrepreneurial Universities

OECD (2012)	Eizaguirre et al. (2020)
<ul style="list-style-type: none"> • Leadership/Governance • Organization/People/Incentives • Education and Learning • Entrepreneurship Development Path • Relations with the outside world • International activities • Impact measurement 	<ul style="list-style-type: none"> • Incubator/technology Park; • Technology/academic/student spinoffs; • Contracts/collaborations/large-scale studies; • Funding/grants; • Joint venture/testing/consulting/commercial activities; • Information dissemination/networking; • Entrepreneurship education, student production.

2. Regional Development and Universities

In the late 1990s, the United Kingdom, in contrast to the U.S., began linking entrepreneurial universities with regional development, particularly in economically distressed areas (The UK Dearing Report, 1997). This shift was supported by theoretical developments emphasizing the importance of national innovation system (Freeman, 1988; Lundvall, 1992), regional innovation system (Cooke, 1993, 1998), and learning economies (Lundvall and Johnson, 1994), which highlighted universities' role in fostering learning regions. The UK's approach influenced the OECD (1999), which recommended that member countries adopt similar policies. Australia followed suit with its own national measures (Nelson, 2002). The OECD (2012) subsequently published guidelines for entrepreneurial universities.

While the theoretical premise suggests that entrepreneurial universities naturally contribute to regional development, many regions continue to decline. This trend is particularly pronounced in countries with centralized governance and limited local autonomy. The concept of regional ecosystems (Stam and Spigel, 2016, 2018; Paul et al., 2017; Etzkowitz, 2022; Han and Shin, 2023) is often integrated into discussions about entrepreneurial universities, as the presence of ecosystems or clusters can enhance a university's regional contribution. Goldstein and Glaser (2010) even suggest that universities should influence regional governance or participate in regional development organizations.

In Korea, the relationship between science and technology and regional development was discussed before the link between universities and regional development. Hong (1997), Seol et al. (1999, 2002) examined the collaboration between the Daedeok Research Complex—a national research cluster—and Daejeon Metropolitan City, where the complex is located. Studies on university-region collaboration emerged later and remain relatively few (Ki, 2008; Min, 2011; Jang, 2016; Kim, 2016).

III. Korea's New Policy

1. History of University Reform in Korea

In 1950, when the Korean War ended, there were fewer than 20 higher education institutions in Korea. However, as demand for highly skilled human resources grew due to economic development, the number of universities expanded significantly. Establishing a university was not easy, however, due to laws and administrative regulations. The first major university structural reform

occurred in 1995, which opened the door for anyone who met the necessary conditions to establish a university. This liberal policy led to the establishment of over 50 new universities.

In 1997, just two years after this expansionary policy, the Korean economy faced a severe crisis and had to request a bailout from the IMF due to a foreign exchange shortage. As a result, the economy underwent significant qualitative and structural changes. In 1998, a national policy aimed at revitalizing venture companies—stimulating the economy through knowledge and technology—was introduced. Around the same time, the Ministry of Education began restructuring 51 national universities, aiming to merge and specialize them while reducing staff for more efficient operations. However, this policy was met with strong opposition from universities and local regions, and by 2000, the focus shifted from restructuring to enhancing competitiveness (Shin, 2005).

A full-scale structural reform policy was initiated in 2010 when the number of universities had reached 346. This policy took an indirect approach to structural adjustment, drawing on the lessons of the failed 1998 reforms, which had been more direct and forceful. All universities, except for religious institutions, were subject to annual evaluations, with financial support from the government limited to the bottom 15%. The worst-performing 5% of universities were further penalized by restricting access to student loans. If a university remained in the bottom 5% for two consecutive years, it was designated as poorly managed and could lose its license. This restructuring policy has continued, though with some adjustments, such as evaluating universities every three years or at the regional level.

Qualitative improvements in universities were pursued through direct intervention. First, in 1999, as recommended by the U.S. President's Committee (1992, 1996), Korea introduced the BK21 (Brain Korea 21) program, aimed at strengthening graduate schools and building world-class universities (Seol, 2011). Initially, only national universities were selected for the program, but over time, the selection criteria were adjusted to include regional universities.

In the early 2000s, as global discussions on entrepreneurial universities gained traction, Korea enacted the Industry-University Cooperation Act of 2003 to promote collaboration between universities and industries. This led to the establishment of Industry-University Cooperation Foundation at nearly all universities. About a decade later, in 2012, the Industry-University Cooperation Program (LINC, Leaders in Industry-university Cooperation) was launched, allowing universities to undertake actual projects, with support provided every five years. Currently, 50 to 60 universities receive annual funding through this project.

Various programs aimed at supporting regional universities had existed in the past, such as the Regional Specialized Engineering University Program (1979–1994), the National Engineering University Program (1994–1998), the Local

University Specialization Program (1994–1998), the New University for Regional Innovation (NURI) Program (2004–2008), and the BK21 Program’s Local University Research Team (Ki, 2008). More recently, the RIS (Regional Innovation System) Program, initiated in 2020, has involved cooperation between the Ministry of Education and local governments.

Despite the success of these programs in strengthening universities’ entrepreneurial activities and promoting industry-university collaboration, local communities and industries have relatively weakened. In some areas, the term “local hollowing out” has emerged to describe this trend. The concentration of resources in the Capital region has further eroded the status of local universities. Many local institutions, particularly in regions outside the Capital, have struggled to meet enrollment targets due to the declining school-age population. Even the engineering colleges at leading universities in Korea’s nine regions have seen their enrollment numbers fall.

In addition to university-specific initiatives, there have been regional innovation policies. For example, the Korean government launched the National Balanced Development Policy in 2004, a five-year initiative aimed at reducing regional disparities. Initiatives such as the Ministry of Industry and Resources’ Local Technology Innovation Program (2004–) and the Regional Innovation Base/Hub Construction Program target 15 cities and provinces, excluding Seoul. Other initiatives include the Ministry of Education’s NURI (New University for Regional Innovation) Program and the Ministry of Science and Technology’s efforts to promote technology commercialization in R&D Special Zones (2005–). Various ministries have pursued policies for technological innovation, industrial development, and regional growth, such as the Ministry of Industry and Resources’ Industrial Location Policy (1984–) and Regional Innovation Cluster Program (2018–).¹

However, these policies have traditionally been fragmented and isolated from one another (Park and Oh, 2011). The result has been overlapping efforts, with a focus on small, program-based interventions rather than comprehensive development policies. Additionally, local governments have had little policy autonomy. This system remained in place until a new policy was introduced in 2023.

2. New Policy: Glocal University 30 and RISE System

The 2023 policy announced by the Ministry of Education (MOE), which oversees university policy in Korea, seeks to revitalize local universities and regional economies. Several factors drove the introduction of this policy. First,

¹ Since each ministry has changed its name several times, so indicate it as a simple name.

while Korea ranked 22nd out of 63 countries in terms of national competitiveness in 2022, its competitiveness based on university quality was much lower, ranking 46th. Second, in 2022, approximately 40,000 university enrollment spots went unfilled, with 75% of these vacancies occurring at regional universities. This trend is expected to worsen as the population of 18-year-olds continues to decline, dropping from 700,000 in 2011 to 480,000 in 2021, and is projected to reach 260,000 by 2040 (MOE, 2023).

In response, the central government, led by the Ministry of Education, launched the Glocal University 30 Program in 2023 to revitalize local universities and local economies. This initiative is supported by the RISE (Regional Innovation System and Education) policy, which establishes an administrative framework to assist local governments. The Glocal University 30 Program aims to promote changes in universities, while the RISE policy ensures that various central government ministries collaborate with local governments to enhance universities' contributions to their regions. The term “glocal” refers to the concept of localization within a global economy, as described by Kanter (1995).

2.1 Glocal University 30

The Glocal University 30 program aims to transform local universities, excluding those in the Capital area, into hubs for local-industry-academic cooperation, elevating both local governments and universities to a global standard. The program envisions universities as centers for local development, achieved through collaboration with local governments, industries, and communities. It will support approximately 30 local universities—10 universities per year over a three-year period—providing each with \$74 million over five years, along with various legal deregulations necessary for innovation. A key aspect of this policy is the emphasis on cooperation in the order of local communities, industries, and universities.

Beyond cooperation, the second requirement of this program is structural change within universities as shown in Table 2. This includes mergers and consolidations with nearby institutions, new forms of inter-university alliances and partnerships, and collaborations with regional research or specialized institutions. The policy also calls for breaking down barriers between academic disciplines, departments, or even entire schools. The rationale behind this policy stems from the recognition that one of the primary obstacles to change within universities is the department-based system. In Korea, departments were historically the basic operational units of universities. As a result, departments had control over key decisions, such as faculty hiring and curriculum design, making college- or university-wide reforms difficult without departmental approval. Furthermore, universities and the government struggled to implement changes when opposed by existing departments. To address this, the department

system has been abolished under this policy, allowing local governments and universities to pursue structural reforms freely according to their needs.

The third requirement is that universities must open their governance structures—pinnacles of decision-making for new activities—to both internal and external stakeholders. This includes participation from local governments, industries, and regional research or specialized institutions in university governance. Specialized institutions refer to testing, inspection, certification, local research, continuing or re-education institutions, etc.

Table 2. Requirements for the Glocal University 30 Program

<p>1. Internal Innovation</p> <ul style="list-style-type: none">○ Hub for local-industry-university cooperation○ Breaking down internal and external barriers<ul style="list-style-type: none">▪ Professorships open to local and industry experts▪ Incentives for top professors/experts▪ Elimination of departments (recommended fusion/self-designed majors)▪ Promotion of double majors○ Building a new innovation system<ul style="list-style-type: none">▪ Open university governance to local industry and society○ Performance evaluation and transparency<ul style="list-style-type: none">▪ Regular measurement and public disclosure of regional contributions <p>2. Structural Reform</p> <ul style="list-style-type: none">○ Mergers, alliances, and resource sharing between universities<ul style="list-style-type: none">▪ One national university per region○ Alliances between universities and regional research institutions○ Alliances with international universities or institutions <p>3. Local-Industry-University Cooperation</p> <ul style="list-style-type: none">○ Alignment with regional development plans under the RISE system○ Support and investment from local governments and industries○ Absorption of local retraining and lifelong education○ Encouraging local settlement
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The fourth requirement is that each selected university must establish and disclose a performance management system to monitor and evaluate reform efforts, cooperation with the region, and contributions to the community (MOE, 2023).

From a Korean perspective, the deregulation granted to local universities is revolutionary. Previously, university policy was tightly controlled by laws and regulations within Korea’s continental legal system. However, this policy allows universities and local governments to pursue the program’s goals autonomously. For instance, universities are now free to establish new institutions through mergers or restructuring, form partnerships between public and private universities, allow students to move freely between departments, offer courses

outside designated campuses in cutting-edge fields, adjust admission quotas, and hire professors with industry or government expertise. In addition, special incentives will be offered to capable and contributing faculty members (MOE, 2024).

2.2 Policy System: RISE (Regional Innovation System and Education)

The government's strategy for implementing the Glocal University 30 program can be broadly categorized into four areas: selection and concentration, support from the demand perspective, data-driven selection and evaluation, and diversification of funding sources from various ministries, local governments, and industries.

Table 3. Strategy of the Glocal University 30 Policy

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| <ol style="list-style-type: none">1. Selection and Concentration2. Diversification of Support from Ministries, Local Gov'ts, and Industries3. Support from a User Perspective4. Data-Based Selection and Evaluation<ul style="list-style-type: none">○ Regular evaluation○ Disclosure of university contributions to the local community |
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The selection and concentration strategy focuses on nurturing flagship provincial universities that collaborate with local industries, academia, and research institutes, prioritizing those with the greatest regional impact. Support from the demand perspective means that restructuring will be tailored to the needs of universities and local authorities. This marks a groundbreaking shift in Korean university operations, which have long been governed by regulations from the Ministry of Education. Data-driven selection and evaluation aim to preempt political controversy, as the selection results will significantly impact the future of both the universities and the regions they serve.

The most critical aspect of the program's support lies in inter-ministerial cooperation. Traditionally, policies for Korean universities were implemented by individual ministries in isolation. However, this new policy emphasizes cooperation across ministries, with local governments recommending universities that align with their regional development strategies. This creates an opportunity for universities to develop joint plans with local governments to secure funding.

The RISE system requires each local government to establish a RISE organization, which will connect various central government projects with universities. Regional innovation, industry-university collaboration, lifelong education, professional vocational education, and local university revitalization projects will now be integrated and managed under this system. Furthermore,

more than 50% of the Ministry of Education's university funding, which was previously divided into multiple categories, will be consolidated into a locally managed budget.

2.3 Selection Evaluation Criteria

The selection process for the Glocal universities is divided into two stages: preliminary and main. This two-stage process was introduced due to the high number of anticipated applications. In 2023, 108 universities submitted 94 plans, and in 2024, 109 universities submitted 65 plans. The discrepancy in the number of plans versus universities is due to the expectation of autonomous mergers. Ultimately, 10 plans were selected in both 2023 and 2024.

The selection criteria and scoring reflect the Korean government's priorities for this program (MOE, 2024). In the preliminary stage, evaluation scores are weighted as follows: 60% for innovativeness, 20% for performance management, and 20% for regional characteristics. To be considered, a university must score 70 points or higher overall and at least 30 points for innovativeness.

Innovativeness is the most heavily weighted criterion in the preliminary stage. Performance management is a basic requirement for all plans, and regional characteristics are considered essential. The MOE defines innovativeness as breaking away from traditional university frameworks, being bold and ambitious, driving global competitiveness, fostering local-industry-university cooperation hubs, dismantling internal and external boundaries, and aligning with the specific characteristics of each university. Universities are encouraged to propose innovative measures that may have previously been constrained by legal regulations, signaling a significant shift away from stability-focused education standards and toward a more innovation-oriented approach.

Restructuring efforts are another critical focus of the evaluation process. The Ministry of Education has categorized university alliances into four levels: partial alliances, high-level sharing, comprehensive alliances, and full integration. Higher levels of cooperation are more favorably evaluated and receive greater support.

In the main stage, evaluations are weighted as follows: 50% for the fidelity of the plan, 20% for the appropriateness of performance management, and 30% for the local government's investment plan. At this stage, the feasibility of the plan is scrutinized, along with the extent of local government support. Many universities brought along Vice Governors from regional authorities during the presentations to bolster the credibility of their plans and demonstrate active regional government involvement.

3. Socio-economic Background of the Policy

South Korea, with a population of 51.75 million and a land area of 223,404 km², slightly smaller than the United Kingdom, is divided into provincial-level and basic-level local authorities. At the provincial level, there are nine provinces and eight metropolitan cities, with numerous basic local governments operating beneath them.

However, South Korea faces a significant problem: the concentration of population and economic power in the Capital area, which includes Seoul, Incheon, and Gyeonggi-do Province. While this area covers only 11.2% of the national land, it holds 51% of the total population and accounts for 70% of the growth in GRDP (Gross Regional Domestic Product)—a figure that continues to rise (Bank of Korea, 2024). In fact, the concentration of the population in the Capital area is the highest among OECD countries (Office of Statistics, 2024).

The second socio-economic issue is the country's low birth rate. With a total fertility rate of 0.72 in 2023, South Korea is among the countries with the lowest birth rates, alongside other East Asian nations such as Hong Kong, Singapore, and Taiwan. Additionally, approximately 50,000 people migrate from local regions to the Capital area each year, particularly younger workers, which further diminishes the vitality of local areas (Office of Statistics, 2024). This exodus is a major reason why local universities and industries struggle to find students and workers.

So, why are so many universities eager to participate in this policy? The answer lies in university finances and the central government's control over them. Korean universities, which can be divided into 4-year and 2-year institutions (about 200 of each type), face financial difficulties. While Korea has a high college admission rate of 76.2% and a free education system until high school, this places a considerable financial burden on both the state and the public. Since 2009, following the global financial crisis, the Ministry of Education has imposed strict controls on tuition increases. Universities that violate these guidelines face various government sanctions, making it challenging for them to operate outside of these restrictions. For the past 15 years, financial constraints have been severe. Therefore, with the promise of \$74 million over five years for university that comply with the new policy, nearly all local universities are compelled to participate.

4. Media Perception

Kim and Kim (2024) analyzed 373 editorial comments from national and local daily newspapers over a 10-year period to examine how local universities are portrayed. The main themes identified were “crisis,” “reform and restructuring,”

“consideration and support for local areas,” and “discrimination against local universities.” As for responsibility, the most frequently mentioned causes were the declining school-age population, concentration in the Capital area, the central government’s role, and local universities’ own actions. Proposed solutions often focused on strengthening cooperation between the central government and local communities, improving policies, regional distribution, autonomous reforms, restructuring, and exit strategies.

The media generally agrees on the existence of a crisis for both local universities and local economies. The root causes are seen as fundamental societal trends, such as the declining birth rate and population concentration in the Capital area, while the central government is criticized for not offering adequate measures. The consensus is that both the central government and local communities must work together and autonomous reform or restructuring is essential. The Glocal University 30 policy emerged in this context.

IV. University Response

1. Ten Universities in 2023

In 2023, ten universities were designated as part of the Glocal University 30 program. Each of these universities met the Ministry of Education’s basic requirements, which included implementing innovative university reforms, establishing performance management systems, ensuring transparency, and opening governance to local governments, industries, and society. The specifics of the innovative reforms are outlined in previous sections.

Of the ten business plans, four focused on university integration, while the other six pursued alliances or partnerships between regional higher education institutions, research institutes, and specialized institutions.

Non-integrated universities, which do not aim for the internal complexities of integration, tend to be more innovative. These universities adjust their structures and functions to align with regional industries. Four universities fall into this category, with three reorganizing their education and research to support three to four strategic industries defined by regional governments. One university focuses solely on aerospace and defense, a strategic industry identified by the regional government.

The second type includes two universities located in urban manufacturing centers. These universities are positioning themselves to support and lead the city’s industries in collaboration with local governments. One of these institutions is also planning to create a regional development fund, without

government participation, through partnerships with local educational institutions, medical centers, and industrial companies.

The third type includes universities that plan to act as regional flagships, supporting local authorities or smaller universities while focusing on education and research for regional strategic industries. One national university has partnered with 16 smaller regional universities to share core subjects—delivered online—and help the smaller universities specialize by using half of the central government subsidy. Additionally, this university plans to open a micro-campus in an underdeveloped area to provide lifelong education and retraining for local residents.

Integrated universities, on the other hand, focus on merging national universities, public universities, and other institutions. These universities support regional industries and pursue campus specialization. One national university plans to establish integrated governance across six institutions, including national universities, public universities, research institutes, and specialized institutions. This university has chosen to specialize in humanities, particularly focusing on traditional culture, rather than industry

Table 4. 10 Universities Selected in 2023

2023	Characteristic	Vision
K National U	National U + national U	Campus specialization
P National U	National U + national U of education	Campus specialization
A University	National + public + research + specialized	Humanities special.
C National U	National U + National U	Campus specialization
J National U	Specialization in 4 ind., micro campuses	Leading 16 small Us
H University	Specialization in 3 ind., Micro campuses	AI intensive training
G National U	Specialization in aerospace	U-research collab.
S National U	Specialization in 3 ind., 3 micro campuses	5 Us collaboration
U University	Leading regional ind., 6 micro campuses	Local Fund
P U of S&T	Leading city ind., creating startup valley	3 Us collaboration

Note: U = University, I = Institute

2. Ten Universities in 2024

In August 2024, 10 new universities were confirmed under the Glocal University 30 program, including 2 integrations, 2 alliances, and 6 independent institutions. However, 7 of these universities are concentrated in specific regions,

leading to speculation about possible political considerations for regions that support the current government.

Integrated universities do not differ much from those selected in 2023. Integration is difficult to promote due to conflicts between the universities or institutions involved, and even between regions where each campus is located. As a result, these universities tend to show weaker internal innovation compared to other types of institutions. However, they share a common feature: campus-level specialization. The more significant characteristic of the 2024 cohort is the focus on alliances.

One plan involves an alliance model for two-year private healthcare colleges in different regions. These institutions aim to develop an integrated plan under unified governance, focusing on field-specific specialization of each campus, merging similar departments, establishing joint online departments, and standardizing the curriculum.

Another plan is an alliance of private universities in Korea's second-largest city. While their internal reforms align with the Ministry of Education's requirements, their external reforms include creating a representative model for private university alliances in collaboration with the city government. The goal is to specialize each campus in supporting the city's industrial ecosystem.

Table 5. 10 Universities Selected in 2024

2024	Characteristic	Vision
C University	3 national U + 1 public U	Campus specialization
W University	1 private U + 1 college	Healthcare industry
Health Cs	3 Cs alliance in different regions	Alliance model of private Cs
Private Us	2 private Us based on big city	Alliance model of private Us
G University	Specialization in the field	Defense Industry
G University	Specialization in urban industries	Research platform
M University	Specialization in the field	Green marine/ships
D University	Specialization in the field	Korean medicine platform
I University	Specialization in urban industries	
H University	Specializing in education	Education-focused

Note: C = College

V. Discussion

1. Comparison with OECD (2022) Recommendations

How should we evaluate Korea's Glocal University 30 policy, which presupposes cooperation not only between industries and universities but also between regions, industries, research institutes, and universities? While the entrepreneurial university theory typically refers to universities' entrepreneurial activities, does it also encompass regional cooperation for development?

Before the late 1990s, the relationship between universities and regions was primarily discussed in terms of university expenditures and human resource development. Studies suggested that the input-output ratio of universities to their regions was approximately 1.5 or less. However, a British government committee proposed that universities should play an active role in local community development, beyond the influence of their presence alone (Goddard et al., 1994). This idea was later adopted as national policy (The UK Dearing Report, 1997).

Table 6. OECD (2022) Recommendations

1. Higher education policy should be coordinated with wider economic and social policies.
2. Universal access for academic community (students and staff) to entrepreneurship activities.
3. Policy makers and HE Leaders should adopt a broad definition of excellence that allows HEIs to adapt their needs of their ecosystem.
4. Measurement of impact of HEI's impact on the wider community, as a way of learning, should be embedded into the ways HE leaders keep track of progress.
5. HE teachers and leaders should have opportunities for peer-learning, in particular from international practices.
6. Entrepreneurship and activities should include social impact, as well as economic growth.
7. HEIs should take up the challenge of digital transformation, undertaking new forms of collaboration, teaching and research.

Other studies also explore the broader relationship between universities and communities. Paul et al. (2017) emphasizes universities' role in regional development, citing examples such as the University of Twente in the Netherlands, the University of Oulu in Finland, and the University of Tromsø in Norway. They argue that universities produce regional leaders, serve as support organizations, provide knowledge, and act as windows reflecting the community's needs. Similarly, Etzkowitz (2022) underscores the role of

universities as icons of entrepreneurial institutions, citing Stanford University's relationship with Silicon Valley as an example.

The OECD (2022) report, based on a meeting of policy leaders from five European countries in September 2017, expands on these ideas by analyzing 13 countries and presenting seven recommendations for developing entrepreneurial universities. These recommendations align closely with the goals of Korea's Glocal University 30 program, as shown in the table below. Korea's 2023 policy can be considered a diligent follower of the OECD's recommendations.

Korea's policy aligns with the first recommendation by ensuring that university policies are consistent with regional development strategies through the RISE system. The second recommendation, which advocates universal access to entrepreneurial activities, is supported by Korea's emphasis on providing incentives for both entrepreneurial activities and research. In most Korean universities, faculty incentives are limited or nonexistent, making this a groundbreaking measure.

The third recommendation calls for a flexible definition of excellence, and the fourth emphasizes the need for regular, public measurement of universities' regional contributions—both of which are reflected in the Korean policy. The fourth recommendation is the measurement of social impact by the universities.

The fifth recommendation, which encourages peer-learning from international practices, is mirrored by the global orientation of the Korean program. The sixth recommendation, to include social impact in entrepreneurship activities, is also addressed by the Korean policy, which includes measures for regional contributions beyond economic factors. For instance, one university in the 2023 cohort aims to pursue K-Humanities, while a 2024 institution plans to cultivate non-economic social leaders.

Finally, the seventh recommendation focuses on digital transformation. Korean universities are pursuing digital innovations, with some publicly emphasizing digital activities. For example, one 2023 university is shifting entirely toward AI education and research, while another is sharing courses online with other institutions. Many selected universities are also opening online courses for local communities.

2. Differences from Existing Theories

Korea's approach, however, diverges from existing theories and the recommendations of the OECD (2022) in several key ways.

First, while existing studies typically focus on small areas or individual cities, this study targets a larger regional scope. Second, the Korean policy represents a cooperative model that actively involves the central government, in contrast to the more localized focus of previous research. Third, the policy promotes

regional industrial development by engaging all universities, research institutes, and specialized institutions within the region. Fourth, the policy calls for a complete transformation of universities into innovative and entrepreneurial institutions. This transformation redefines the role of universities in regional development across the entire country. If fully implemented, approximately 30 universities outside of Korea's Capital areas would assume this critical role.

These differences necessitate a broader theoretical discussion regarding entrepreneurial universities, beyond mere structural reforms. This study contends that universities' contributions to the development of larger regions—not just the small areas where they are located—are inadequately captured by the traditional concept of entrepreneurial universities. To address this, regional development should be recognized as a fourth essential role of the university.

3. Criticism from the Academic World

New educational policies are often met with criticism, and the Glocal University 30 program is no exception. In the mid-2010s, during discussions about entrepreneurial universities, concerns were raised that higher education and research would become commodified, and universities would transform into commercial entities (Ko, 2016; Cho, 2016).

Regarding the Glocal University 30 policy, critiques have surfaced about the potential harm to the public nature and value of universities, the dangers of selection and concentration, bureaucratic governance structures, and the negative impact on non-industrial academic fields. There are also calls for an urgent alternative to the current relationship between local governments and universities (Yeom, 2023). While most criticisms are valid, it is harder to agree with the notion that the public nature of universities will be harmed. Is it in the public interest for universities to ignore regional issues? Should the value of universities remain static, or should it evolve with the times?

Table 7. Issues Raised by Korean Studies

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| <ol style="list-style-type: none">1. Damage to non-industrial studies: Risk to academic fields not tied to industry2. Harm from selection and concentration: Concerns about prioritizing some universities/regions3. Local government capacity: Questions about local governments' ability to execute4. Doubts about cooperation: Skepticism about effective partnerships5. Financial independence of universities: Concerns about financial sustainability post-support |
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Chae (2023) suggests that the key to the policy's success lies in ensuring universities' financial sustainability even after central government support ends. This includes considering non-industrial majors and studies and enhancing

collaboration between universities and local governments. Ban (2023) points out the need to strengthen the capabilities of local governments. Table 7 is the summary of issues raised by academia.

As pointed out by the OECD (1999), the central government should provide incentives to universities for regional development, while local governments must understand the role of universities and incorporate them into regional policy programs. Additionally, universities should evaluate and reward members who contribute to their local communities.

VI. Conclusion

1. Summary

This study introduces a new national-level university policy in Korea, the Glocal University 30 program, which began in 2023. Under this program, the central government will designate around 30 universities and provide an average of \$74 million to each over five years. The aim is to encourage universities to pursue internal innovation and collaborate with local governments to promote regional development. The policy's emergence is rooted in the socioeconomic challenges facing Korea, including a declining school-age population, the relative decline of local regions, and the resulting crisis of local universities.

The policy promotes internal innovation by abolishing the department system, allowing educational activities outside the designated campus, expanding faculty qualifications to include field experts, and opening university governance to local communities. Structurally, universities are encouraged to pursue convergence education and research in cooperation with neighboring universities, research institutes, and specialized institutions. Externally, universities are expected to serve as hubs connecting regions, industries, and academia. If innovation is hindered by legal regulations, the central government will intervene to ease these restrictions. In a society where legal regulations are the foundation of social operation, these measures are quite unconventional, representing an ambitious policy to address contemporary issues and revitalize both regions and universities.

From a theoretical perspective, this policy adds a new dimension to the university's role: solving regional problems. While the OECD (2022) refers to this as part of an entrepreneurial university's function, Korea's policy is distinct. First, it targets larger regions rather than small local areas. Second, it incorporates the central government into a cooperative framework. Third, it mobilizes all universities, research institutes, and specialized institutions within a region for industrial development. Fourth, it demands the complete

transformation of universities into innovative and entrepreneurial institutions. As such, this study argues that regional development should be recognized as a fourth essential function of universities.

2. Limitations and Success Conditions

While the Glocal University 30 policy appears to demand a complete transformation of universities, with a focus on aligning entrepreneurial activities with regional development, it is important to note that around 20 research-oriented universities in the Capital region are not part of this policy. These research-oriented institutions, along with some science and technology universities, are subject to different expectations. Thus, Korean universities can be categorized into three types: research-oriented universities in the Capital area and science and technology sectors, regional development-oriented universities, and institutions that do not benefit from the policy.

Several issues arise with this policy:

1. **Multiple Policy Goals:** The policy seeks to restructure universities, transform their internal functions, and develop regional industries—all at the same time. A longstanding principle in economics suggests that a single policy should have only one goal. Can a policy with multiple objectives succeed? Senior experts who have monitored and studied Korea's science, technology and industry policy for decades offer a different perspective. They argue that while Korea's national efforts in this field may not fully achieve all of the policy's objectives, they will nonetheless move the country closer to those goals.
2. **Policy Sustainability:** A critical question is whether the policy can be sustained under future governments, particularly given Korea's two major political groups that often change leadership. Additionally, local governments' capacity to independently carry out these regional policies is questionable, especially in areas with low budgetary independence. For example, the financial independence rate is 36.6% for provinces and 57.7% for metropolitan cities (Ministry of Interior and Safety, 2024). Local governments with limited financial autonomy may struggle to promote local economic growth in alignment with university reforms. The professionalism of local government administrators, many of whom lack national or international experience, is another concern.
3. **Industry Sustainability:** There is uncertainty regarding whether the strategic industries selected by each region and university are sustainable for long-term development. If these industries decline, universities' efforts could backfire, creating long-term issues for both students and institutions.

4. **University Flexibility:** Universities that focus on specific industries may struggle to adapt if those industries lose their competitiveness. The policy eliminates the traditional department system of university in part because departments often resist necessary changes. However, universities may similarly resist adaptation when their strategic industries fail.
5. **Survival of Underperforming Universities:** The policy raises the question of what to do with the bottom 100 universities among Korea's 400 higher education institutions. Many of these struggling universities are unable to close due to legal constraints, and closures face strong opposition from local governments and communities. Some universities that should be closed are being artificially sustained, resulting in various negative side effects.

References

- Ahn, S.E., Kim, J.E., Noh, B.H. and Kwon, Y.H. (2015) Development and Application of Integrated Measurement System to Assess Freshwater Ecosystem Services in Korea. Korea Environment Institute, 2015-02, 1-177.
- Ahn, S.E., Moon, N.K., Kim, J.O. and Cho, Y.R. (2019) Estimating the Cost of Air Pollutants and Pollution Sources in PM_{2.5} Early Death. Korea Environment Institute, KEI Focus No.49, 3-16.
- Ban, J.H. (2023) Critical Reflections on Regional Development through Entrepreneurial Universities. Seoul: Regional Innovation Institute.
- Bank of Korea. (2023) Inter-regional Population Movement and Regional Economy, September.
- Bank of Korea. (2024) Regional Economic Report, 3.
- Barrow, C.W. (1996) The strategy of selective excellence: Redesigning higher education for global competition in a postindustrial society. *Higher Education*, 31(4), 447-469.
- Chae, M.H. (2023) Financial Sustainability in Local Universities Post-Government Support. *Korean Journal of Higher Education Policy*, 35(4), 103-128.
- Cho, Y.H. (2016) The impact of entrepreneurial universities on traditional academic values. *Korean Journal of Higher Education Studies*, 28(3), 78-95.
- Clark, B. (1998) *Creating Entrepreneurial Universities: Organizational Pathways of Transformation*. Oxford: International Association of University Press and Pergamon.
- Cooke, P. and Morgan, K. (1993) The Network Paradigm: New Departures in Corporate and Regional Development. *Environment and Planning D: Society and Space*, 11(5), 543-564. <https://doi.org/10.1068/d110543>
- Dill, D. (1995) University-industry entrepreneurship: The organization and management of American university technology transfer units. *Higher Education*, 29(4), 369-384.
- Eizaguirre, A., Diaz-Iso, A., Vivar-Simón, M. and Markuerkiaga, L. (2020) An analysis of Spanish universities' entrepreneurial activities through secondary data (websites and reports). *Journal of Entrepreneurship Education*, 23(4), 1-23.
- Etzkowitz, H. (2022) Entrepreneurial university icon: Stanford and Silicon Valley as innovation and natural ecosystem. *Industry and Higher Education*, 36(4), 361-380.
- Etzkowitz, H., Webster, A., Gebhardt, C. and Terra, B.R.C. (2000) The Future of the University and the University of the Future: Evolution of Ivory Tower to Entrepreneurial Paradigm. *Research Policy*, 29(2), 313-330.
- Freeman, C. (1987) *Technology Policy and Economic Performance: Lessons from Japan*. London: Frances Pinter Publishers.
- Goddard, J.B., Robertson, D. and Vallance, P. (1994) *Universities and Communities: A Policy for Higher Education and Local Development*. London: Committee of Vice-Chancellors and Principals.
- Goldstein, H.A. and Glaser, K. (2012) Research universities as actors in the governance of local and regional development. *Journal of Technology Transfer*, 37(2), 158-174.
- Hong, H.D. (1997) Technopolis Strategy of Local Government for Regional Innovation System Construction: Focusing on the Daeduk Science Park and Daejeon City. *The Korea Association for Policy Studies*, 6(2), 101-127. (in Korean)
- Jang, S.M. (2016) Virtuous cycle and balanced development of regions and universities. *Universities: Discourse and Issues*, 1, 43-53. (in Korean)

- Kanter, R.M. (1995) *World Class: Thriving Locally in the Global Economy*. New York: Simon & Schuster.
- Keast, D. (1995) Entrepreneurship in universities: Definitions, practices and implications. *Higher Education Quarterly*, 49(3), 248-266.
- Kim, C.J. and Kim, H.B. (2024) Frames and Issue Attributes of Newspaper Editorials Reporting Local University Issues: A Comparative Analysis of National and Local Dailies. *Journal of Communication Science*, 24(2), 5-50. (in Korean)
- Kim, J.B. (2024) Young people are leaving Jeju: Net outflow of people in their teens and 20s exceeds 2,500. January 3, Jeju Ilbo. (in Korean)
- Lundvall, B. and Johnson, B. (1994) The Learning Economy. *Journal of Industry Studies*, 1(2), 23-42.
- Min, C.G. (2011) Roles of regional universities in regional innovation systems and activation policies. Science and Technology Policy Institute. (in Korean)
- Ministry of Interior and Safety (2024) e-National Index. Retrieved from https://www.index.go.kr/unity/potal/main/EachDtlPageDetail.do?idx_cd=2458
- MOE (Ministry of Education) Department of Local Manpower Policy. (2023). The Glocal University 30 Promotion Plan, 3. (in Korean)
- MOE (2024a) 2024 Basic Plan for Local University Revitalization Project, 3. (in Korean)
- MOE (2024b) The Glocal University 30 – Policy Briefing, 04.16. (in Korean)
- MOE (2024c) Instructions for Filling Out the Glocal University Preliminary Designation Application (Innovation Plan), 2. (in Korean)
- Nelson, B. (2002) *Higher Education at the Crossroads: An Overview Paper*. Australian Department of Education, Science and Training (DEST).
- OECD (1999) *The Response of Higher Education Institutions to Regional Needs*.
- OECD (2012) *A Guiding Framework for Entrepreneurial Universities*.
- OECD (2022) *Advancing the Entrepreneurial University: Lessons Learned from 13 HEInnovate Country Reviews*. OECD SME and Entrepreneurship Papers, July.
- Office of Statistics, Korea (2024) *National Population Movement 2023*.
- Park, S.J. and Oh, S.H. (2011) An exploratory study on the central government's budget allocation method for regional autonomous R&D promotion: Focusing on the regional R&D comprehensive subsidy system. Korea Institute of Science and Technology Planning and Evaluation. (in Korean)
- Röpke, J. (1998) *The entrepreneurial university, innovation, academic knowledge creation, and regional development in a globalized economy*. Working Paper No. 3, Department of Economics, Philipps-Universität Marburg, Germany.
- Rothaermel, F.T., Agung, S.D. and Jiang, L. (2007) University Entrepreneurship: A Taxonomy of the Literature. *Industrial and Corporate Change*, 16(4), 691-791.
- Seol, S.S. (1999) Long-term development strategies for Daedeok Science Town. Science and Technology Policy Institute. (in Korean)
- Seol, S.S. (2012) A Model of University Reform in a Developing Country: The Brain Korea 21 Program. *Asian Journal of Innovation and Policy*, 1(1), 31-49.
- Seol, S.S., Park, J.M. and Shin, D.H. (2002) *Origins and Evolution of Daedeok Valley*. Science and Technology Policy Institute. (in Korean)
- Shin, H.S. (2005) *A Solution for University Reform*. Korea Education Development Institute (Ed.), Discussion for Korean Education. (in Korean)

- Son, Y.J. and Choi, J.I. (2023) An Exploratory Study on the Derivation of Entrepreneurial University Components. *Journal of Organization and Management*, 47(4), 95-123. (in Korean)
- Stam, E. and Spigel, B. (2016) Entrepreneurial Ecosystems. Utrecht School of Economics, Tjalling C. Koopmans Research Institute Discussion Paper Series.
- The HEFCE/Universities UK Report. (2001). The Regional Mission.
- The UK Dearing Report (1997) The National Committee of Inquiry into Higher Education, Higher Education in the Learning Society. UK: Department for Education and Employment.
- US President's Committee of Advisors on Science and Technology (1992) *Renewing the Promise: Research-Intensive Universities and the Nation*. Washington, DC: PCAST.
- US President's Committee of Advisors on Science and Technology (1996) PCAST Report on Research Universities. Washington, DC, June.