# GLOBALIZATION OF KOREAN UNIVERSITIES: MARKETS, STRATEGIES AND PERFORMANCES

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## ABSTRACT

*Intensified competition for faculty and students, revenues, and reputation has heightened the need for universities to define their market position and delineate their strategy. This paper focuses on the case of Korea. Drawing on extensive interviews with top Korean university leaders and available documents, it analyzes the contours of Korean universities' identities and strategies. The paper proposes a classification of Korean universities based on their divergent strategies along several axes: research versus education, comprehensive versus specialized, and national versus local. While Korean universities tended to be similar in the past-seeking, for example, comprehensiveness of curricular coverage-we find the growing differentiation in the context of intensifying competition and globalization.*

**Keywords:** Korean Universities, University Classification, University Strategy, Market, Globalization

## INTRODUCTION

The link between economic competitiveness and educational excellence is an article of faith among political leaders, elite bureaucrats, and university administrators. Indeed, no one seems to be able to deny that outstanding universities, with their world-class education and innovative research, contribute immensely to national economic growth and competitiveness. These days, the university is not a closed research institution but where it is working in an open innovation system and interacting with industries and governments (Chesbrough, 2004; Etzkowitz, 2004). It is, therefore, not surprising that, whether we turn to Europe, to the United States, or to Asia, significant public and private funds find their way into the coffers of leading universities. Korea is a compelling case in point. The faith in the power of higher education is attested by the highest participation rate for higher education (69% in 2015) among OECD countries (OECD, 2016). Certainly, no national politicians or business leaders can question the central importance of universities in Korea's future.

Nevertheless, Korean universities face massive and critical challenges in the early 21st century. Given the legacy of strong state intervention in the management of universities, Korean universities have exhibited a surprising level of uniformity. Regardless of size or market, most Korean tertiary institutions offered MA and PhD programs, and in many scholarly fields as well. At the same time, that uniform state support for higher education is declining; there is a projected decline in the student population (largely due to low fertility). In short, what may seem like a Garden of Eden for university administrators is, in fact, a field replete with brambles and bushes. This paper seeks to make sense of how Korean universities are attempting to meet the myriad challenges of the day. Drawing on numerous interviews and documentary research, we illuminate

the various strategies that Korean university leaders and administrators are pursuing. Furthermore, we provide a classification of the leading universities and explicate the growing differentiation of Korean university structures and strategies. Finally, we propose a framework to analyze how market situations affect university strategies, which, in turn, affect their performances.

## DEVELOPING UNIVERSITY STRATEGY

Higher education has expanded dramatically in the past half century. Paradoxically, the rapid expansion in the numbers of universities and of students-far from vitiating competition among universities-has instead intensified it (Thorne & Cuthbert, 1996; Johnes, 1999). The enhanced competitive environment has made it urgent that each university develop a more or less coherent strategy to protect its market niche.

Needless to say, there are generic features to all university strategies, exhibited in pronouncements by university leaders and their marketing representatives. Every institution strives for quality and excellence and duly stresses the importance of the faculty, the student body, and the staff. The past is celebrated even though the future is perforce brighter. Beyond these generic and probably necessary features of strategic visions and statements, some critical variables differentiate universities, such as the ideal balance between research and teaching, consultancy, and public service, or the choice of which academic fields and disciplines to cover and to promote (Throne & Cuthbert, 1996). These researchers consider that, although this situation can satisfy the needs of an economically developed society, it is yet unstable; traditional universities tend to move toward technological study and research programs, gradually abandoning classic teaching lines, while young universities drift toward a traditional academic status to acquire prestige. The external environment acts differently for different universities, each of which has its own structure, financing systems, and hierarchy (Bratianu & Stanciu, 2010). In general, (Rolfe, 2003) found that older, more established universities tend to stress research and academic excellence more strongly than their newer counterparts, whom tend to stress vocational training and contributions to regional businesses and local governments.

Research is, not surprisingly, a major factor in a university's identification of itself. Although research generates a great deal of revenue, it is also inevitable that associated costs escalate rapidly. Yet, research's critical role in enhancing a university's reputation, whether in university ranking or general reputation, renders it a critical factor. Therefore, all universities seek to recruit research 'stars' (Henkel, 1997), who not only generate grants and revenues, but also enhance the reputation and renown of the university. Similarly, all universities seem to nurture and develop their own research talent. However, the escalating cost of recruiting and retaining 'star' researchers and the general costs associated with research make the relative emphasis on research a key variable for university strategy (Cuthbert, 1996).

Similarly, recruiting the most able and accomplished students is a primary concern for all institutions. Therefore, each institution faces a choice of which market it should cultivate: local, regional, or national (Rolfe, 2003). Although objective data is available to prospective students on many ostensibly relevant topics such as, drop-out rates or average initial salary, previous research findings suggest that prospective students make very little use of the available data whereby it does not have a major impact on students' decision-making as to which university to enroll in (Pearson, 2000). Therefore, a university's strategy expends a great deal of effort in course provision due to the fact that prospective students base their decisions on which courses of study are available at a particular institution. That is, each university deliberates on its course

provision to ensure that it can provide the best possible supply of students (Rolfe, 2003). Universities, therefore, not only closely track what other institutions are offering in terms of courses, but they also seek feedback from their students ("customers") (Murlis & Hartle, 1996).

Finally, since the early 1990s, higher education institutions have seen the greatest growth in revenues from external sources. Until then, nearly all their funding came from two core activities, teaching and research, or from state support (Coate, 2000). Consulting or cooperating with industries, including public partners, has now become the third focal point of strategic decision and differentiation. Since the 1990s, there has been rapid growth in funding from related industries. Universities shifted their emphasis to activities that included not only teaching and research, but also consultancy and other provision for local industries and business partners, including the private and public sectors.

As noted, a key factor in the rise of university strategy decision-making is the intensifying competition in the higher education sector. However, there are also other factors such as, the increasing costs of excellence (such as supporting research), the general decline in state subsidies, and the professionalization of university administration (St. John & Parsons, 2005; McGettigan, 2013). In this changing and challenging environment, the need for a strategic view becomes ever more important (Johnes, 1999), and universities that may once have rejected the idea of a strategic approach have begun to seek it (McNay, 1995). In this sense, universities follow the general organizational tendency to regard strategy as initially unnecessary, then as mere promotion, then as positioning, and finally as strategic planning (Sanders, 1999).

Thus, university strategy had now become not only a norm but also a way to articulate its identity and market niche, as well as a statement about its aspirations. The increased attention given by universities to identity and marketing confirms Kotler and Fox's argument (1995) regarding four basic principles: consumer orientation (target market), long-term maximization of profitability (another measure of long-term success), total organization effort, and social responsibility. We will now turn to the situation facing Korean universities.

## THE CONTEXT OF KOREAN UNIVERSITIES IN THE EARLY 21ST CENTURY

As of 2015 (Korean Ministry of Education 2016), there are 432 higher education institutes, including 189 four-year universities, 138 two-year colleges and 105 other institutions, in Korea. The size of the student population was 3.64 million students, including 2.03 million for four-year universities, 0.76 million for two-year colleges, and 0.85 million for other institutions. Revenues were estimated to be about 24.1 billion US dollars: 18.8 billion for four-year universities, 4.4 billion for two-year colleges, and 0.8 billion for others. There were 374 private institutions (students: 2.70 million, revenue: 21.7 billion) and 58 public ones (students: 0.82 million, revenue: 2.5 billion). That is, private institutions accounted for more than 80% of resources in higher education in Korea (Korean Ministry of Education 2016) is shown in Table 1.

**Table 1**
**CURRENT STATE OF HIGHER EDUCATION IN KOREA**

| | No. of Institutions | No. of Students (Thousands) | Revenue (USD, Billions) |
|---|---|---|---|
| Four-year universities | 189 | 2,084 | 18.8 |
| Two-year colleges | 139 | 697 | 4.4 |
| Other institutions | 105 | 736 | 0.8 |
| Total | 432 | 3,517 | 24.1 |

Note: Statistics are based on the internal data from Ministry of Education (2016).

## Trends in Revenue Markets for Korean Universities

The major components of universities revenue include student tuition, research funds, government support, and private gifts.

### Student Tuition

Korean universities' tuition revenue shown in Table 2 grew dramatically between 2000 and 2014, registering an increase of US$6.6 billion. The main source of this increase is the rise in tuition fees s given in Table 3. Yet, if we consider the expected decline in the number of high school graduates and the political pressure to rein in tuition fees, it is very likely that Korean universities will not benefit from increased revenue in the near future is shown in Table 4.

**Table 2**
**CURRENT TUITION MARKET FOR KOREAN UNIVERSITIES**
**(UNIT: BILLION DOLLARS)**

| Year | 2000 | 2005 | 2010 | 2014 | Increase rate |
|---|---|---|---|---|---|
| Market scale | 5.9 | 10.5 | 13.4 | 12.5 | 212% |

Note: Statistics are based on the internal data from Korea Ministry of Education (2016).

**Table 3**
**ANNUAL TUITION INCREASE PER STUDENT IN KOREAN UNIVERSITIES**
**(UNIT: DOLLARS)**

| Year | 2000 | 2005 | 2010 | 2014 | Increase rate |
|---|---|---|---|---|---|
| Public universities | 2,019 | 2,897 | 3,898 | 3,670 | 182% |
| Private universities | 3,942 | 5,347 | 6,620 | 6,444 | 163% |

Note: Statistics are based on the internal data from Korea Ministry of Education (2016).

**Table 4**
**CHANGES OF HIGH SCHOOL GRADUATES IN KOREA**
**(UNIT: THOUSAND PERSONS)**

| Year | 2000 | 2005 | 2010 | 2015 | Increase rate |
|---|---|---|---|---|---|
| Graduates | 765 | 569 | 634 | 607 | -21% |

Note: Statistics are based on the internal data from Korea Ministry of Education (2016).

## Research Funds

Between 2000 and 2010, the total amount of research funds for higher education expanded rapidly to more than US$1.8 billion, a nearly four-fold increase is given in Table 5. This trend is expected to continue, but the more salient fact is that the top 20 research universities garner nearly half of all the research funds are explained in Table 6. Incidentally, this ratio is the same in the United States.

**Table 5**
**RESEARCH FUNDS FOR KOREAN UNIVERSITIES**
**(UNIT: MILLION DOLLARS)**

| Year | 2000 | 2005 | 2010 | Increase rate |
|---|---|---|---|---|
| Market scale | 650 | 1,410 | 2,470 | 380% |

Note: Statistics are based on the internal data from Korea Ministry of Education, Science & Technology (2012).

**Table 6**
**RESEARCH FUNDING SOURCES FOR KOREAN UNIVERSITIES**

| Sources | Public Sector | Private Sector | University Itself | Etc. | Total |
|---|---|---|---|---|---|
| Research | 1,926 | 321 | 198 | 25 | 2,470 |
| % | 77.9 | 12.9 | 8.0 | 1.0 | 100.0 |

Note: Statistics are based on the internal data from Korea Ministry of Education, Science & Technology (2012).

## Government Support

Korean government support has continuously expanded during the past decade because higher education is considered a driving force for the economy. State support is a major source of revenues for Korean universities and is expected to increase in the future.

**Table 7**
**CHANGES IN KOREAN GOVERNMENT SUPPORT FOR PRIVATE UNIVERSITIES**
**(UNIT: MILLION DOLLARS)**

| Year | 2000 | 2005 | 2010 | 2014 | Increase rate |
|---|---|---|---|---|---|
| Market scale | 290 | 810 | 2,680 | 2,927 | 1,009% |

Note: Statistics are based on the internal data from Korea Ministry of Education (2016).

However, in 2013, the Korean government announced a structural reform of its universities to respond to the need for a rapid environmental change in its higher education due to such factors as the sudden changes in the school-age population is given in Table 7. Recognizing that this policy will be a key factor in the future development of higher education, the government is pushing ahead with a drastic structural reform by improving the assessment system.

## Private Giving

Private gifts to Korean universities increased from US$180 million in 1995 to US$680 million in 2000, but the total amount has declined by about two-thirds in the past decade. This

problem is especially critical for the top twenty universities that have received the majority of private philanthropy. Recently, the market has been decreased by 56% during the last 14 years which is shown in Table 8.

**Table 8**
**CHANGES IN PRIVATE GIVING FOR PRIVATE UNIVERSITIES**
**(UNIT: MILLION DOLLARS)**

| Year | 2000 | 2005 | 2010 | 2014 | Increase rate |
|---|---|---|---|---|---|
| Market scale | 680 | 540 | 450 | 380 | -56% |

Note: Statistics are based on the internal data from Korea Ministry of Education (2016).

## TRENDS IN LABOR MARKETS FOR UNIVERSITY GRADUATES

Korean universities have historically stressed the importance of the labor-market placement of their graduates. The dominant reasoning was that they would not be able to attract able, fee-paying students without the prospect that they could secure good, remunerative employment after graduation. In the context of many new universities and intensifying competition, Korean universities have begun to pay more attention to the fate of their graduates and how they will be placed in various 'slices' of the labor market, for example, by focusing on local employment as opposed to national or even international job placement.

### University Location and Labor Market

According to the Korean Ministry of Education, Science and Technology (2012), most university graduates gain local employment. That is, university and employment nexus is by and large local. Specifically, 95% of Seoul and 75% of regional university graduates find jobs near the university they attended is given in Table 9.

**Table 9**
**COMPARISON BETWEEN UNIVERSITY LOCATION AND EMPLOYMENT REGION**
**(UNIT: %)**

| | | Employment region | |
|---|---|---|---|
| | | Seoul metropolitan | Regional area |
| University location | Seoul metropolitan | 93.4 | 6.6 |
| | Regional area | 25.9 | 74.1 |

Note: Statistics are based on the data from Korea Educational Development Institute (2009).

### University Location and Firm Size

Given the concentration of large firms in the Seoul metropolitan area, one consequence of the location effect is that university graduates from the Seoul area tend to work for larger firms than their counterparts from regional areas explained in Table 10.

**Table 10**
**COMPARISON BETWEEN UNIVERSITY LOCATION AND FIRM SIZE**
**(UNIT: %)**

| | | Firm size | |
|---|---|---|---|
| | | Large | Medium/small |
| University location | Seoul metropolitan | 28.2 | 71.8 |
| | Regional area | 18.2 | 81.8 |

Note: Statistics are based on the data from Korea Employment Information Service (2013).

## Major-Industry Fitness

There is, however, a disjuncture between the supply of university graduates (especially in terms of their majors or what they study) and the demand of the employers and industries. In general, some specializations such as, medicine and education, show a close fit between the supply and the demand. However, the same statement cannot be made about graduates with humanities and natural-sciences degrees. Table 11 explains about matching majors and Employment.

**Table 11**
**MATCHING MAJORS AND EMPLOYMENT**
**(UNIT: %)**

| Major | Humanities | Social Sciences | Education | Engineering | Natural Sciences | Medicines | Arts and Athletics |
|---|---|---|---|---|---|---|---|
| Fitness | 58.3 | 71.1 | 87.3 | 77.5 | 77.2 | 88.8 | 76.9 |

Note: Statistics are the data from Korea Employment Information Service (2014).

# METHODOLOGY

## Classifying Korean University Strategies

This research explores how each Korean university chooses a strategy under its own circumstances, so that the research examines the questions as follows:

1. What are Korean universities' strategies which facilitates their innovation and performance?
2. What is the classification of Korean universities, in term of their market?
3. What should be the best-fit strategy for each Korean university?

The research findings are based on the research that had conducted from 2015 to 2016, interviews with 48 top officials in Korean universities including their presidents, vice-presidents, and directors in planning. The researcher asked understanding of their circumstances and the way of building their own university strategy. The research used the framework, 'market-strategy-key success factors-performance', which means university at first is affected by the markets, and then builds its own strategy, and applies the key success factors.

## ANALYSIS AND DISCUSSION OF FINDINGS

### Korean Universities' Strategies and Success Factors

To make sense of the variety of Korean university strategies, we will analyze them on the basis of three distinct dimensions: The primary stress of the institution (research versus education), the nature of curricular or disciplinary coverage (comprehensive versus specialized), and the target labor market (national versus local). In addition, we analytically distinguish three different types of factors: input, process, and infrastructural. Table 12 summarizes the success factors. We then identified eight primary strategies and associated factors that are important for their success.

**Table 12**
**KEY SUCCESS FACTORS**

| Name | Factors | Concepts |
|---|---|---|
| Strategic factors | Institution's mission, strategic direction, leadership, governance, etc. | Factors related to university's vision and future direction under the specific environment inside and outside of universities, performing a key role to achieve university's overall development. |
| Input factors | Faculty, student, etc. | Factors related to the basic input components to produce universities' outputs. |
| Process factors | Education system, curriculum, research support, industry partnership, etc. | Factors related to the process components from inputs to university's performance. |
| Infrastructural factors | Evaluation, compensation, administration system, etc. | Infrastructural components that synthesize strategy, input, and process factors. |

### Eight Strategic Models for Korean Universities

From the interview results, we identified eight principal strategic approaches for Korean universities are explained in table 14 and suggest relevant factors to determine their success. Table 13 offers a summary of the criteria and classification. Alignment of university administration and bureaucracy with the identified strategy is critical for any measure of success. We provide some case studies to elaborate on the proposed classification scheme.

**Table 13**
**CRITERIA FOR CLASSIFICATION OF KOREAN UNIVERSITIES**

| Classification | | Definition |
|---|---|---|
| Institution's main goal | Research-based | Focused on creating knowledge. Invested in graduate programs: master and doctoral degrees |
| | Education-based | Focused on knowledge transfer. Invested in undergraduate education |
| Academic discipline | Comprehensive | More than 15 disciplines/academic fields |
| | Intensive | Fewer than 15 disciplines/academic fields |
| Labor market | Nationwide | Targeted in national placement for graduates |
| | Local | Targeted in local placement for graduates |

### Strategy 1: Research-Comprehensive-Nationwide University (RCN)

Strategy 1 refers to research-intensive, comprehensive, and nationally oriented university strategy.

**Strategy and Direction:** The general orientation of Strategy 1 universities is to generate world-class research, produce the next generation of leaders in research and other endeavors, and offers a comprehensive curriculum, including advanced professional degrees. Their graduates seek national or even international employment. The model culture among professors (and students) is the cultivation of competition and with a strong stress on meritocratic, performance-based remuneration. To pursue Strategy 1, our findings suggest that university leadership, especially, the president and its board, is critical. To achieve success in the face of intensifying national and global competition, powerful leadership must overcome resistance from faculty, students, and other potential obstacles to achieve the goals of a research-intensive, national university.

**Input Factors:** Attracting and retaining leading research faculty are the foremost challenges for Korean universities. A general guideline is that at least half the faculty should publish in a world-class journal every year, with a short-term goal of increasing the proportion of faculty capable of publishing in top outlets. A new development is the emergence and popularity of target hiring, which allows the hiring of faculty in specialized areas identified by the university strategy. Appointment and promotion of faculty is mainly based on a record of outstanding performance in research. The faculty, who present a substantial body of successful research, is able to be reappointed even with a moderate level evaluation in teaching. In addition, Strategy 1 universities seek to attract able students, including those with the ambition to pursue research in graduate school. To achieve this goal, they not only offer a strong curriculum in diverse academia areas and strong faculty and staff support in student learning, but also offer financial aid.

**Process Factors:** Type 1 universities concentrate on more fundamental theories than practices in the real world. Moreover, type 1 universities are developing more in-depth programs at graduate levels. One distinctive characteristic of this type is interdisciplinary, providing broad academic experience by integrating diverse academic disciplines. Moreover, student participation in internship classes is booming, such as industry partnership programs in engineering majors. An administration system for facilitating academic research and industry partnerships is unique among type 1 universities. They introduced the office of research, industry partnership programs, and research or science parks.

**Infra Factors:** One important infra factor in type 1 universities is related to compensation and promotion policies. For instance, type 1 universities just introduced performance-based pay, based on faculty members' research output, teaching quality, and social services. Furthermore, it is becoming more difficult for assistant or associate professors to get tenure. It is common that type 1 universities evaluate their faculty strictly and decline to renew their employment contracts.

### Strategy 2: Research-Intensive-Nationwide University (RIN)

Strategy type 2 refers to a type of Korean university that focuses on the nationwide labor market, more research than teaching, and intensive programs in engineering or related disciplines.

**Strategy and Direction:** Improving research ability is the most critical issue among type 2 universities, and they are more focused on graduate schools to nurture masters and doctoral students than undergraduates. Moreover, type 2 universities strategically concentrate on less than 10 academic fields, especially engineering and science majors, which are comparably competitive among Korean universities. Graduates are trained to be employed in both the global and national labor market, so type 2 universities' placement is targeted worldwide as well as nationwide. Faculty members' outputs, such as journal publications and research projects, are also important characteristics of this type.

**Input Factors:** Type 2 universities are research-based universities. The top priority is attaining top research faculty. This factor is the same as type 1 universities. Therefore, capable faculties frequently move between type 1 and 2. Consequently, talent acquisition and retention are also becoming problematic in Korean universities. One prominent issue was an inbreeding problem of faculty at type 1 universities. However, type 2 universities are rather new and cultivate academically diverse backgrounds of their faculty to promote more effective research outputs. Type 2 universities are targeting the top 5% of Korean high school graduates. To obtain top quality students, the universities provide various financial support, scholarships, and assistantships, and also high quality programs.

**Process Factors:** One distinction in type 2 universities is an intensive curriculum, which means that academic majors are rather limited. Curriculum is more specialized in specific majors such as engineering and sciences, but not expanded to the liberal arts and humanities. Like type 1 universities, type 2 universities emphasize interdisciplinary studies among academic majors. Type 2 universities have strong graduate programs, and, based on those programs, they try to build more competitive undergraduate programs among research-based universities. Research support systems at type 2 universities are intended to facilitate research activities and partnerships between industry and university, such as offices of industry partnerships, centers for patent and technology transfer, centers for incubating new business, research/science parks, and so on.

**Infra Factors:** Competition among professors at type 2 university is common, so a performance-based pay scheme is the most popular trend. In addition, obtaining faculty tenure at both type 1 and type 2 universities is becoming more difficult and rigorous than ever before. In their organizational structure, type 2 universities are flatter and more decentralized than type 1 universities. Type 2 universities are much smaller and flexible than type 1 universities because they are able to benefit from decentralized decision-making.

**Strategy Type 3: Research-Comprehensive-Local University (RCL)**

Strategic type 3 refers to a vision provider in a local area, such as Korean national (public) universities.

**Strategy and Direction:** Type 3 universities are locally based and closely

connected to local businesses and industry. Their mission emphasizes their accountability to develop local society and competitiveness. Therefore, their role is more closely related to that of public universities than private ones. Type 3 universities aim to produce quality outputs related with public and local issues in both the research and education arenas. To overcome the disadvantages of localness and successfully deploy their strategy, type 3 universities have tried to adopt a strategy, "select-concentration" whereby they select a few academic disciplines and concentrate on attaining national top-notch research capability.

**Input Factors:** Type 3 universities also need outstanding faculty to conduct research. Furthermore, type 3 universities need to obtain more specialized faculty who can conduct research in specific or focused subjects that are closely connected to local businesses and industries. Student recruitment is closely coordinated with local governments to attract excellent students who live locally. Type 3 universities have lower tuition fees than private institutions and provide a tuition benefit and scholarship from local governments. However, type 3 universities are facing fierce competition from type 1 and 2 universities because of the limitations of able graduate students and research resources.

**Process Factors:** Type 3 universities provide more comprehensive curriculum, including liberal arts, humanities, and social science. Diverse partnership programs with local industries are popular in type 3 universities. The sizes of the student body are rather significantly larger than other local universities and are of similar size to type 1 university. Type 3 universities try to maintain a high quality of education in terms of both course selection and experienced faculty. A research administration system is designed to support the faculty's research and development (R&D) activities with local companies and industries. The role of type 3 universities is to provide vision for local communities, and they have focused on specializing their research to consider the needs of the local community. Technology transfer and commercialization of research outputs between type 3 universities and local industries frequently occur. Type 3 universities also have tried to establish science parks in local areas.

**Infra Factors:** Type 3 universities place an emphasis on research more than teaching, as a result, their faculty members are evaluated and compensated based on their research outputs. However, their research resources are becoming difficult to obtain, especially capable graduate students. Thus, they have shifted their focus from research to teaching. Consequently, type 3 universities have tried to balance their research and students' education, and, currently, the student evaluation of teaching has become more important for their faculty evaluation process.

### Strategy Type 4: Research-Intensive-Local University (RIL)

The typical form of strategic type 4 universities is a locally based institute of technology that focuses more on research than teaching and also specializes in a few fields rather than offering comprehensive academic disciplines.

**Strategy and Direction:** Type 4 universities strategically choose three to five majors to invest in heavily, frequently specializing in engineering programs. They find a competitive advantage in a specialized field and invest only in this field. The size of type 4 universities is rather small and compact, so they have tried to concentrate on the quality of

outputs, not quantity, such as, excellence in research and their students. Type 4 universities often interact with local businesses and communities because it is relatively easy to apply their research outputs to local industries. However, regardless of locality, the analysis of an interview with the president at a type 4 university indicated that their vision is going to be global and that type 4 universities compete with type 1, 2, and 3 universities.

**Input Factors:** Faculty members in type 4 universities are not top faculty compared to those at type 1 and 2 universities. They have relatively productive research outputs and successfully participate in projects with local businesses and industries. Most students in type 4 universities are second-tier students, but they have been trained to obtain good research skills. Thus, type 4 universities are able to continue to conduct research with quality students. It is well known that an institution's reputation is closely related to its successful recruitment of outstanding prospective students, not only from local area, but also from other regions.

**Process Factors:** Type 4 universities conduct quality control on research and education to be more competitive than other research universities, i.e., type 1, 2, and 3. To maintain a competitive edge, type 4 universities focus on a few specialized academic fields, i.e., telecommunication, which can be fitted best for this small research-based university. The effectiveness of administration in type 4 universities is relatively high because they are compact.

**Infra Factors:** Type 4 universities are relatively recent in history, but they know how to operate their administration systems effectively. For instance, type 4 universities utilize the most advanced administration systems in terms of research evaluation and compensation, research support, teaching quality management, and so on. As a result, type 4 universities continue to maintain their small size to obtain a competitive edge on research in a few specialized fields.

**Strategy Type 5: Education-Comprehensive-Nationwide University (ECN)**

This category includes teaching-based liberal arts universities that focus on the nationwide labor market for college graduates. They are oriented more toward teaching than research, and they offer a range of various academic disciplines.

**Strategy and Direction:** The goal for type 5 universities is to foster leaders and specialists in each academic field. The universities mainly focus on undergraduate programs, so graduate programs, especially PhD programs, are not popular in type 5 universities. However, in some competitive academic fields, type 5 universities offer graduate programs for a limited number of graduate students. By deploying this strategic direction, type 5 universities emphasize college students' leadership to become leaders in Korean society.

**Input Factors:** In type 5 universities, prospective faculty members are evaluated based on their teaching ability first and research ability second. In addition, type 5 universities emphasize good relationships and effective communication between faculty and students to achieve excellence in educational outputs. Students in type 5 universities are more career-oriented, so they are interested in specific careers that are closely related with their current interests and future needs. Students already have their career vision in many cases, so most are dual trackers who complete at least two majors during their college studies.

**Process Factors:** Type 5 universities offer a concrete curriculum, quality classes, and good GPA management system especially designed for undergraduates. To maintain the excellent quality of their educational systems, type 5 universities provide diverse academic programs with flexible course-taking options and high quality facilities. As a result of educational flexibility, many students seek dual degrees in both their major and minor subjects, independent study, and so on. To create the research-related experience, type 5 universities build alliances with other research universities to cooperate in research. In addition, type 5 universities have many alliances such as, exchange student programs with international universities to broaden their students' academic experience. In type 5 universities, research support is more focused on educational purpose; as a result, undergraduate students' participation is higher than that of graduate students, unlike type 1 and 2 universities. Moreover, research studies at type 5 universities are more likely to be more practical than academic. For this reason, faculty members usually conduct academic research during summer and winter vacations because their typical teaching load, i.e., 12 hours or more per semester, makes conducting research during academic periods rather challenging. University partnerships with businesses and industries are common because type 5 universities try to develop students' business acumen to help them adapt to the real business world. As a result, type 5 universities achieve relatively higher employment and placement rates compared with other types of universities.

**Infra Factors:** Evaluation systems for faculty in type 5 universities weigh more on the faculty's teaching outputs, so compensation can be based on their teaching performance. Type 5 universities try to maintain a better quality of teaching facilities, such as classrooms, laboratories, and other educational equipment.

**Strategy Type 6: Education-Intensive-Nationwide University (EIN)**

Strategic type 6 universities refer to military academies, athletic and teachers universities, which focus on the nationwide labor market, are more teaching-oriented than research-oriented, and offer only a few competitive academic disciplines.

**Strategy and Direction:** Type 6 universities pay attention to their customers, including students and the parents, society and the community, and businesses and industries. Most programs in type 6 universities offer bachelor degrees, not doctorates, and some universities do offer masters. Type 6 universities focus only on a few competitive fields because of their targeted goals. In general, graduates from type 6 universities aspire to enter the national labor market rather than the local market. To achieve placement success, type 6 universities try to keep their practical and educational reputation high and also invest the majority of their funding in teaching and educating their students.

**Input Factors:** Faculty members in type 6 universities are both outstanding instructors and experts in the real world who have practical experience for more than five years in their fields. Therefore, type 6 universities require faculty to have substantial experience in business and industry. The universities also emphasize educational mission and the faculty's suitable personalities, since faculty members who possess good qualifications make great teachers and better career counselors for students. Students in type 6 universities are relatively excellent compared to other locally based universities because of their special talent, i.e., athletics, arts, and military backgrounds. Type 6 universities recruit able students above the local

level and nationwide. They try to select diverse students from different regions in Korea.

**Process Factors:** Type 6 universities choose a few competitive fields and provide excellent programs only in specific disciplines because of their institutional goals and limited resources. However, the academic major and curriculum are flexible, thus, students could pursuit more than two majors/minors within four academic years. In addition, the student-faculty ratio is relatively low compared with other types of universities, so students enjoy the close professor-student relationships that can be typically provided by such small universities. Moreover, research at type 6 universities is still limited because their educational mission and goals are to develop undergraduate education and focus on improving the quality of teaching. Consequently, type 6 universities require only limited research outputs from their faculty.

**Infra Factors:** Evaluation systems of type 6 universities are different, giving more weight to teaching quality than research outputs. In addition, the salary gap between the same levels of faculty is rather narrow compared with research-based universities, i.e., type 1, 2, 3, and 4 universities. To compensate for this gap, type 6 universities provide more nonmonetary compensations, i.e., presidential recognition, training opportunities, and awards.

**Strategy Type 7: Education-Comprehensive-Local University (ECL)**

Strategic type 7 universities are medium-sized regional private or public universities that focus on the local labor market rather than the national market, more on teaching than research, and more diverse programs in many disciplines.

**Strategy and Direction:** Type 7 universities aim to produce quality specialists and engineers who are closely connected to the local community, businesses, and industries. Their educational strategy covers both specialized courses for a few fields and general education in the liberal arts, so the size of type 7 universities is rather bigger than other education-based universities, i.e., type 5 and 8 universities. Type 7 universities are located in a local city, so their goal is mainly to be competitive in region. However, in some fields, type 7 universities have acquired national reputations in specialized programs, and their vision is aimed at educational excellence at a nationwide level.

**Input Factors:** Type 7 universities require faculty with extensive experience in related businesses and industries who are also good teachers. Adjunct professors from the local community, businesses, and industries are the most popular type of faculty composite, i.e., CEOs, researchers, and professors from other universities. Students are not first tier, but type 7 universities try to recruit good students from local areas. The students differ from other types because they are more interested in practical training than a theoretical approach. Therefore, the majority of students pursue employment after graduation rather than getting advanced degrees in graduate schools.

**Process Factors:** Type 7 universities have established more student-oriented educational systems, responding to students' requests by providing more diverse training programs, including interdisciplinary programs. The most popular programs are closely connected with local businesses and industries; thus, curriculums are also designed to meet local needs. Moreover, partnership with the local community is a core funding source for the

universities.

**Infra Factors:** Type 7 universities employ faculty evaluation systems that heavily focus on teaching and partnerships with industries and assign relatively low weight on research outputs. Compensation for their faculty is mostly based on their performance, even though faculty compensation at teaching-based universities, like type 7 universities, does not vary greatly among instructors. However, currently, the gap is larger than before because universities emphasize industry partnerships and pay incentives based on their faculty's partnership performance.

**Strategy Type 8: Education-Intensive-Local University (EIL)**

Strategic type 8 universities are small universities in specific fields of discipline such as, technology, elementary education, foreign languages, and arts that focus on local labor markets and offer more teaching in a limited field with limited programs.

**Strategy and Direction:** Type 8 universities develop the student as a practitioner who can work for a cluster of industries in local areas. Most educational programs are based on practical training, including the opportunity to work at local companies in a specific field. In addition, their faculty's research focuses on specific companies to analyze and correct errors in their production.

**Input Factors:** Faculty members at type 8 universities have rich experience with business and industry. To manage faculty members' field experience, type 8 universities frequently provide exchange programs for their faculty with local companies, whereby professors can work with a company and then teach students with 'live' experience from industry. Students are not top-tier in terms of SAT scores for type 8 universities, but the universities try to maximize students' potential to prepare them to work for companies where the university is located.

**Process Factors:** Curricula in type 8 universities are specialized in certain fields and are focused academic areas, including engineering or related fields. Curricula are strategically designed to better serve local industries. To this end, a student's laboratory activities are closely connected to local factories. For engineering education of type 8 universities, more emphasis is placed on application of research and development (R&D), i.e., Engineering House, than basic or fundamental research. Therefore, type 8 universities concentrate more on supporting application research and partnerships with local businesses and industries. Moreover, industrial parks are located within type 8 universities and provide diverse support systems through university companies, incubating center, offices for partnerships with industries, and centers for learning at businesses. Industrial partnerships and customized education of type 8 universities play a key role in producing excellent outputs.

**Infra Factors:** Type 8 universities emphasize heavily on partnerships with local businesses and industries. Therefore, both faculty evaluation and compensation are based on results of industry partnerships. In addition, type 8 universities provide diverse incentives to promote industry partnerships at both departmental and individual levels, i.e., monetary incentives, non-monetary prizes, president's recognition, etc.

**Table 14**
**EIGHT STRATEGIC APPROACHES IN KOREAN UNIVERSITIES**

| Category | | Nationwide | Local |
|---|---|---|---|
| Research | Comprehensive | Strategy Type 1: RCN<br>*Research-oriented*: Acquire excellent faculty, research staff, and facilities. Conduct top-notch research. Invest more in graduate schools.<br>*Comprehensive disciplines*: Provide diverse programs in most disciplines. Focus on both undergraduate and graduate schools.<br>*Nationwide placement*: Obtain national recognition of graduates' social and industrial contributions. | Strategy Type 3: RCL<br>*Research-oriented*: Retain excellent faculty, research staff, and staff. Focus on regionally based research. Invest more in graduate schools.<br>*Comprehensive discipline*: Provide diverse programs in many disciplines. Focus on both undergraduate and graduate schools.<br>*Local placement*: Closely connected to local companies and industries. |
| | Intensive | Strategy Type 2: RIN<br>*Research-oriented*: Invest more in graduate schools. Conduct top-notch research.<br>*Intensive discipline*: Provide specialized programs in a field, particularly engineering.<br>*Nationwide placement*: Obtain national recognition of graduates. | Strategy Type 4: RIL<br>*Research-oriented*: Invest more in graduate schools. Conduct research related to local companies and industries.<br>*Intensive discipline*: Provide unique programs in a field.<br>*Local placement*: Obtain most placements in local areas. |
| Education | Comprehensive | Strategy Type 5: ECN<br>*Education-oriented*: Invest mainly in teaching undergraduates.<br>*Comprehensive discipline*: Provide undergraduate programs in many disciplines.<br>*Nationwide placement*: Obtain national placement or pursue more advanced degrees in research universities. | Strategy Type 7: ECL<br>*Education-oriented*: Invest mainly in teaching undergraduates.<br>*Comprehensive discipline*: Provide undergraduate programs in many disciplines. Include specialized programs directly related to local industries.<br>*Local placement*: Contribute to local society and industries. |
| | Intensive | Strategy Type 6: EIN<br>*Education oriented*: Invest mainly in teaching undergraduates.<br>*Intensive discipline*: Focus on specialized programs in one or two disciplines, especially engineering and management, etc.<br>*Nationwide placement*: Obtain national placement. | Strategy Type 8: EIL<br>*Education-oriented*: Invest more in teaching undergraduates.<br>*Intensive discipline*: Provide specialized programs closely related to local companies.<br>*Local placement*: Obtain placement in local industries. |

## CONCLUSION

The study explored Korean universities' eight types of strategies, finding that Korean universities have tried to develop their own strategies and models to improve their competitiveness and innovativeness in the markets in terms of students, funds, and labor. Most importantly, we found that Korean universities have developed not a single strategy but diverse strategies that take into consideration their various factors, such as relationships among research versus education orientation, comprehensive versus intensive discipline, and national versus local labor markets.

Therefore, the study concludes that for the last decade, Korean universities have developed and applied strategies that best fit their circumstances, i.e., students, funding, labor markets, localness, etc. By doing so, Korean universities have achieved their educational goals and survived in their competitive markets. Moreover, we could project the distribution of Korean universities' strategies utilizing data from the Ministry of Education, Science, & Technology.

**Table 15**
**PROJECTED DISTRIBUTION OF KOREAN UNIVERSITIES' STRATEGIES**

| Strategic Type | Type 1 RCN | Type 2 RIN | Type 3 RCL | Type 4 RIL | Type 5 ECN | Type 6 EIN | Type 7 ECL | Type 8 EIL | Total |
|---|---|---|---|---|---|---|---|---|---|
| Number of institutions | 18 | 2 | 11 | 7 | 34 | 4 | 97 | 16 | 189 |
| Percent (%) | 9.5 | 1.1 | 5.8 | 3.7 | 18.0 | 2.1 | 51.3 | 8.5 | 100.0 |

Note: University's strategy types are analyzed by the data from the Ministry of Education (2016).

In addition, we confirm that the major factor for the most successful Korean university is mostly about the president's leadership in terms of strategic execution. In other words, most Korean universities have introduced a direct presidential election system, so it might be hard to deploy their strategic practices from central offices to each department and program. Under this type of circumstance, president leadership could be a critical factor when a Korean university makes an important decision and many voices could be raised during this decision. Therefore, we believe that a correct and strong direction from the presidential leadership will provide a better practice of strategic execution at first, and then autonomy at school or department level is needed to do perform better in terms of operation, i.e., teaching, research, faculty evaluation, etc.

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