

An Analysis of Issues and Trends in Portuguese Studies in South Korea through Text Mining

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Abstract: Portugal, positioned in the western region of Southern Europe, has established itself as a significant participant on the world stage since the era of exploration. Presently, numerous political, economic, and sociocultural elements in Portugal have captured the interest of scholars from diverse fields in the United States and Europe. Despite the ongoing scholarly focus on the state and developments of Portuguese studies in Western nations, limited research has been conducted on this subject in Asian countries. Therefore, this study aimed to navigate issues and trends in Portuguese studies in South Korea through a text-mining analysis. To this end, this study analyzed all Portugal-related research articles published in Korean journals. A total of 231 articles published between 1996 and 2022 were collected, and keyword analysis and semantic network analysis were conducted based on this dataset. The main findings were as follows. First, the research on Portugal in Korea has covered a wide range of subjects, but the majority has been in the social sciences, including but not limited to studies on Portugal's politics, economy, society, culture, and policy. Second, studies treating Portugal as a single case study have been conducted in the context of the EU, Europe, CPLP, or Portuguese history, facilitating an in-depth understanding of Portugal's connectivity at different levels. Third, Portugal has also been treated as a case study in comparative research. Most scholars have compared Portugal to southern European nations with high geographical, linguistic, political, economic, and sociocultural similarities, especially Spain. This research holds significance as it represents the inaugural analysis of the patterns concerning Portuguese studies in Korea.

Keywords: Portuguese Studies, Korea, Text-mining, Keyword Analysis, Semantic Network Analysis

1. Introduction

Portugal, located in the Western part of Southern Europe, has been a remarkable global player since the Age of Exploration. Today, various political, economic, and sociocultural factors in Portugal have caught the attention of scholars from several disciplines in the United States and in Europe[1]. Despite consistent scholarly attention associated with the status of and trends in Portuguese studies in Western countries, there has been little research in Asian countries on the matter, especially in Korea.

The dearth of Portuguese studies in Korea can be attributed to the short history of area studies in the country. Revitalization of area studies research and education in Korea took place under Kim Young-sam administration's globalization policy in the 1990s. In the 1990s, the Cold War-era global structure centered on ideological confrontation and bipolar order collapsed, and nations were seeking a new world order, leading to increasing international cooperation and exchange. In the midst of this changing global environment, Korea's external trade began to expand gradually, and Korean companies' entry into overseas markets diversified. Open globalization policies were therefore essential. To support this

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globalization policy, the production of information and knowledge about each region abroad became a priority, and government-led area studies support policies began to be promoted extensively. As such, Korean area studies developed out of practical necessity, and a full-fledged area studies discipline in Korea has existed for less than 30 years[2].

The other reason for the limited research is the lack of interest in Portugal due to the geographic distance and cultural and linguistic barriers between the two countries. For Korea, there is no conflict of interest because it is not geographically adjacent to Portugal, but at the same time, there are no geographic factors that can benefit each other. In addition, South Korea has high interest in the United States, China, North Korea, Russia, and Japan due to the geopolitical situation in the Korean Peninsula[3], and interest in Portugal is not high among academia, the media, and the public. For this reason, the higher education institutions that provide Portuguese language instruction and other Portugal-related curricula in Korea are highly limited, resulting in the sluggish development of Portuguese studies in Korea. Nevertheless, examining the research trends of Portuguese studies in Korea has practical implications in terms of political and academic discussions about revitalizing Portuguese studies in the future.

What is the current status of Portuguese studies in Korea? What are the main characteristics of Portuguese studies in the country? This study's primary aim was to navigate issues and trends in Portuguese studies in South Korea. Since research related to Portuguese studies in Korea is considerably limited, this paper has therefore timeliness and originality. The results have implications for future research on Portuguese studies in Korea. This study contributes to the relevant literature due to its thematic importance and methodological implications.

2. Literature Review

2.1 Overseas Survey of Portuguese Studies

Currently, there is very limited research related to the survey of Portuguese studies in Korea and elsewhere. Tesser[4] explored the status of Portuguese education programs in the United States as of 1994, the first study in the country on the status of Portuguese studies; however, this study's major limitation is its exclusive focus on Portuguese education programs, which constitute only a part of Portuguese studies in general. Nunes[5] analyzed the state of Portuguese studies scholarship in Canada and suggested future directions for research related to Portuguese-Canadian community. However, this study also concentrated primarily on Portuguese studies education, leaving aside discussions about research trends.

In their thought-provoking book *Transnational Portuguese Studies*, Owen and Williams[1] extensively discuss academic issues related to Portugal, such as the Portuguese Empire, Lusotropicalism, and Anglo-Portuguese relations. Nevertheless, the discussion does not cover specific "research trends" associated with Portuguese studies.

2.2 Domestic Survey of Portuguese Studies

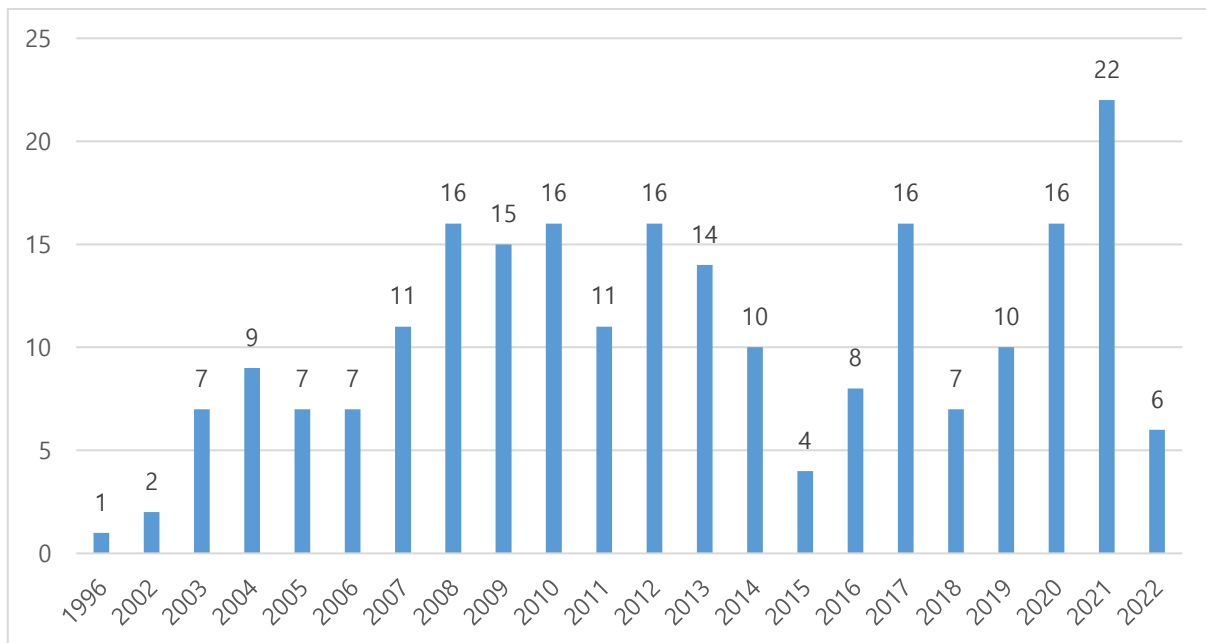
Currently, there is only one research paper related to trends in Lusophone studies in Korea. In their study, Im and Leem[6] identified the intellectual structure of and research trends in Lusophone studies in Korea using a big-data analysis method. Although pioneering, the study broadly describes research trends in the studies of Portuguese-speaking countries, including Portugal, Brazil, Timor-Leste, and five Portuguese-speaking African countries (Cape Verde, Angola, Mozambique, Guinea-Bissau, and São Tomé and Príncipe) without providing many specifics. In this respect, this study aimed to contribute to the current literature and provide directions for follow-up studies by conducting an in-depth analysis of

the state of Portuguese studies in Korea, which have not been done thus far in the country.

3. Research Methods

3.1 Dataset and Data Collection Process

This study analyzed all research articles related to Portuguese studies published in Korean academic journals between 1996 and 2022. A total of 231 articles were collected from the Korea Citation Index (KCI), a database of information pertaining to domestic journals, papers (including full-text downloads), and references. The author searched for articles using the keywords “Portugal” and “Portuguese,” including in the analysis only publications containing these words in their titles and/or keywords. Although there are differences by year, the number of Portugal-related studies increased from 1996 until 2010 and has been increasing again after a slight decrease. During the analysis period, an average of 10.5 Portuguese-related research papers were published annually (see [Fig. 1]).

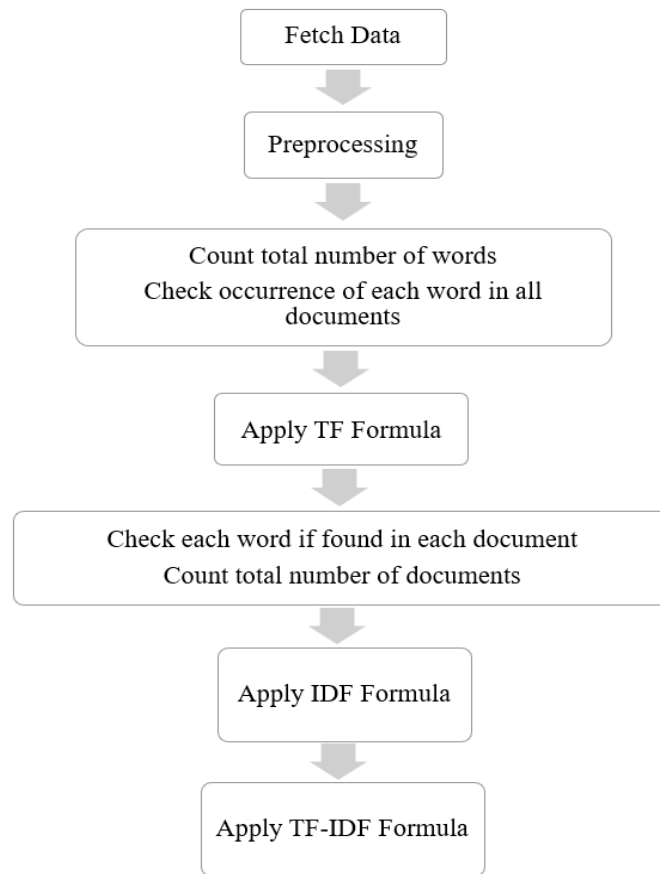


[Fig. 1] Number of Portugal-related Studies by Year (1996 – 2022)

3.2 Data Analysis

The collected data underwent preprocessing, such as removing stop words for text mining analysis. Text mining is a research technique that can identify new patterns, rules, and relationships in massive, unstructured data and information and is considered a research method appropriate for this study. For precision, the author removed punctuation marks and words with no direct relation to Portuguese studies.

This study employed Textom, a big-data analysis solution for Korean, English, and Chinese texts. Based on the preprocessed data, the top 30 keywords were derived for the entire period (1996-2022). In addition, the author divided the entire period into two (1996-2010 and 2011-2022) and extracted 30 keywords for each sub-period to assess changes in keywords over time. This study used TF-IDF-based keyword analysis, which measures “how frequently words with low frequency appearing in other document groups appear within a specific document group”[7].



[Fig. 2] TF-IDF Process[8]

After keyword analysis, CONCOR analysis was conducted, and the results were visualized using UCINET 6.0. Automated CONCOR analysis has a similar methodological foundation to qualitative discourse analysis, which can effectively “obtain the subgroups of keywords so as to understand these interwoven [relationships] with each other”[9].

4. Issues and Trends in Research on Portugal in South Korea

4.1 Current State of Portuguese Studies in Korea

Currently, there are four undergraduate programs offering Portuguese instruction (i.e., departments of Portuguese) across the country. [Table 1] provides the names of the universities, departments, and years of program establishment.

[Table 1] Department of Portuguese in Korea

| University | Department (year) |
|---|--------------------------|
| Busan University of Foreign Studies | Portuguese (1986) |
| Dankook University | Portuguese (2014) |
| Hankuk University of Foreign Studies, Seoul Campus | Portuguese (1966) |
| Hankuk University of Foreign Studies, Global Campus | Brazilian Studies (1981) |

Thus, departments that provide undergraduate-level Portuguese instruction in Korea are rather limited. Nevertheless, these departments are making every effort to provide intensive education on the international relations, politics, society, and culture of Portuguese-speaking countries, along with facilitating Portuguese proficiency, as evidenced by the programs' respective mission statements [Table 2].

[Table 2] Mission Statements of Departments of Portuguese in Korea

| Dept./ Univ. | Mission Statement |
|---|---|
| Portuguese/ Busan University of Foreign Studies | The Department of Portuguese, which was established in 1987 to cultivate talented students who can deal with the globalizing world, currently explores all sorts of problems related to Portuguese language acquisition and Portuguese-speaking countries. Due to the nature of the department, we focus particularly on the Portuguese language. Based on this, the department aims to nurture the Portuguese-speaking world specialist who possesses scholarly and practical knowledge. For this, the students of Portuguese learn not only the Portuguese language but also the cultures, histories, literature, linguistics, politics, and economics of the Portuguese-speaking countries. |
| Portuguese/ Dankook University | The Department of Portuguese was first established in 2014 and primarily focuses on cultivating area experts on Portuguese-speaking countries, including Brazil, Angola, Mozambique, Guinea-Bissau, Cape Verde, Sao Tome and Principe, and East Timor. An area expert is a specialist equipped with high erudition in terms of each country's politics, economy, society, and culture so that he/she can actively lead, research and pioneer the era of globalization. |
| Portuguese/ Hankuk University of Foreign Studies, Seoul Campus | The Department of Portuguese cultivates talented students who can contribute to national competitiveness by researching politics, economics, society, and culture of related countries based on a fluent command of Portuguese. Portuguese is the language used not only in Brazil in Latin America, but in Europe and Africa as well. Brazil occupies approximately 50% of the Latin American territory and its population is about 200 million; Brazil is rising from a regional power to a global power. |
| Brazilian Studies/ Hankuk University of Foreign Studies, Global Campus | Brazil's stable economic growth since the 1990s made the country the sixth biggest economy in the world around the late-2000s. Brazil's economic growth has rapidly expanded economic exchanges with Korea, and it naturally promoted political, social, cultural, and sporting exchanges between both countries. As a result, the relationship between Korea and Brazil is currently expanding at an unprecedented rate.[...] Recently, we modified the department's name to the department of Brazilian Studies and we are strengthening area studies courses, particularly economics and business. This is because the demand for Brazil experts is increasing in Korea as the exchange between both is growing. |

Source: Jung[10]

Aside from the undergraduate programs, there is only one graduate program in Portuguese in Korea: a master's program offered by the Department of Portuguese Language and Literature at Hankuk University of Foreign Studies, Seoul campus. The department's mission statement specifically states, "The Postgraduate Master's degree in Portuguese linguistics and literature focuses on developing the ability to conduct education and research by learning more professional academic methodologies using basic knowledge already learned in the Portuguese and Brazilian fields of literature. Furthermore, the goal is to cultivate high-quality experts with originality and creativity in Portuguese linguistics or Portuguese and Brazilian literature based on their acquired knowledge"[11].

In this section, we navigated the current status of education on Portuguese studies. The next section introduces the research outcomes of text-mining analysis and examines the research trends and major issues of Portuguese Studies in Korea.

4.2 Text-Mining Analysis: Research Outcomes

4.2.1 Keyword Analysis

[Table 3] presents the keyword analysis results for the 231 Portugal-related academic papers collected for this study:

[Table 3] Results of Keyword Analysis

| | Keyword | TF-IDF |
|----|--------------|---------------|
| 1 | Portugal | 120.707843433 |
| 2 | Portuguese | 94.2804012503 |
| 3 | Study | 88.0083083064 |
| 4 | Analysis | 60.7310853615 |
| 5 | Case | 51.5020131979 |
| 6 | Policy | 48.1882712666 |
| 7 | Mission | 45.4868321242 |
| 8 | Trade | 43.7056966906 |
| 9 | Law | 41.026715935 |
| 10 | System | 39.8677502627 |
| 11 | Language | 38.8193382849 |
| 12 | Immigration | 38.4748448429 |
| 13 | Korea | 36.2434093298 |
| 14 | Century | 36.2434093298 |
| 15 | Spain | 33.5673130377 |
| 16 | Brazil | 33.5673130377 |
| 17 | Effect | 33.5673130377 |
| 18 | History | 33.5673130377 |
| 19 | Asia | 30.7798758743 |
| 20 | Architecture | 28.9461658972 |
| 21 | Macao | 28.9461658972 |
| 22 | EU | 28.9461658972 |
| 23 | Identity | 27.8671111384 |
| 24 | Change | 27.8671111384 |
| 25 | Port | 25.9049286812 |
| 26 | Development | 24.8109993405 |
| 27 | Production | 24.8109993405 |
| 28 | Dynasty | 24.8109993405 |
| 29 | European | 22.7031583243 |
| 30 | CPLP | 21.5874405677 |

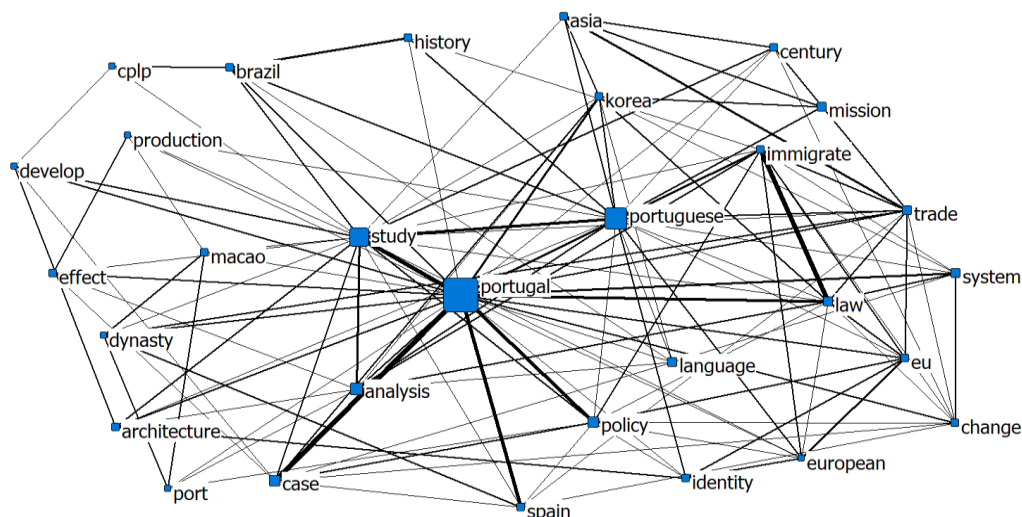
“Portugal” and “Portuguese” were the top two keywords based on TF-IDF, respectively. “Policy” was among the top six keywords, frequently appearing in articles related to COVID-19 response, immigration, cultural policy, domestic policy, and EU policy. “Mission” ranked seventh, indicating that there were many articles describing the history of Portuguese missionaries visiting China and India and many other places in the East. For articles including the keyword “trade,” the majority discussed Eastern trade during the era of Portuguese maritime exploration; this was also highly related to the keywords “Asia” (19th), “Macao” (21st), and “port” (25th). In addition, the keyword “law” ranked ninth, with most articles exploring topics related to immigration law and several related to corporate and labor laws.

Most of the studies related to Portugal that have been conducted in Korea belong to the field of social sciences and humanities, focusing on literature and linguistics. The popular keyword “language” suggests that much research has been conducted by scholars majoring in linguistics, with studies on Portuguese language education and Portuguese linguistics accounting for the majority. The articles “Study of Korean’s Interlanguage of Portuguese—Analysis of Errors and Suggestions for Treating Them” and “The Contrastive Analysis of Stress in Romance Languages: Spanish, Italian, and Portuguese” are representative examples, and many other studies have involved either Portuguese education treating Portuguese as a second language or phonetics, syntax, semantics, and sociolinguistic phenomena.

“Brazil” was the 16th most common keyword, mainly as a consequence of research on Portuguese and Brazilian history and the Community of Portuguese Language Countries (CPLP), while “architecture” ranked 20th based on research on the architectural style of Goa in India, which was ruled by Portugal. Studies of Portugal on the international and regional levels are largely divided into three categories: (1) the connection between Portugal and Brazil, (2) Portugal in the EU or European context, and (3) the CPLP.

4.2.2 Semantic Network Analysis

The results of the semantic network analysis aligned with the results of the keyword analysis. [Fig. 3] visualizes the semantic network structure based on the top 30 keywords. Within the semantic network structure, nodes represent keywords. Large nodes exhibit frequently connected relationships with other keywords, typically located at the center of the semantic network. In other words, the greater the centrality of the connections in the network, the larger the nodes. Additionally, the higher the frequency of simultaneous appearance of both keywords, the stronger the link is[6].



[Fig. 3] Results of Semantic Network Analysis

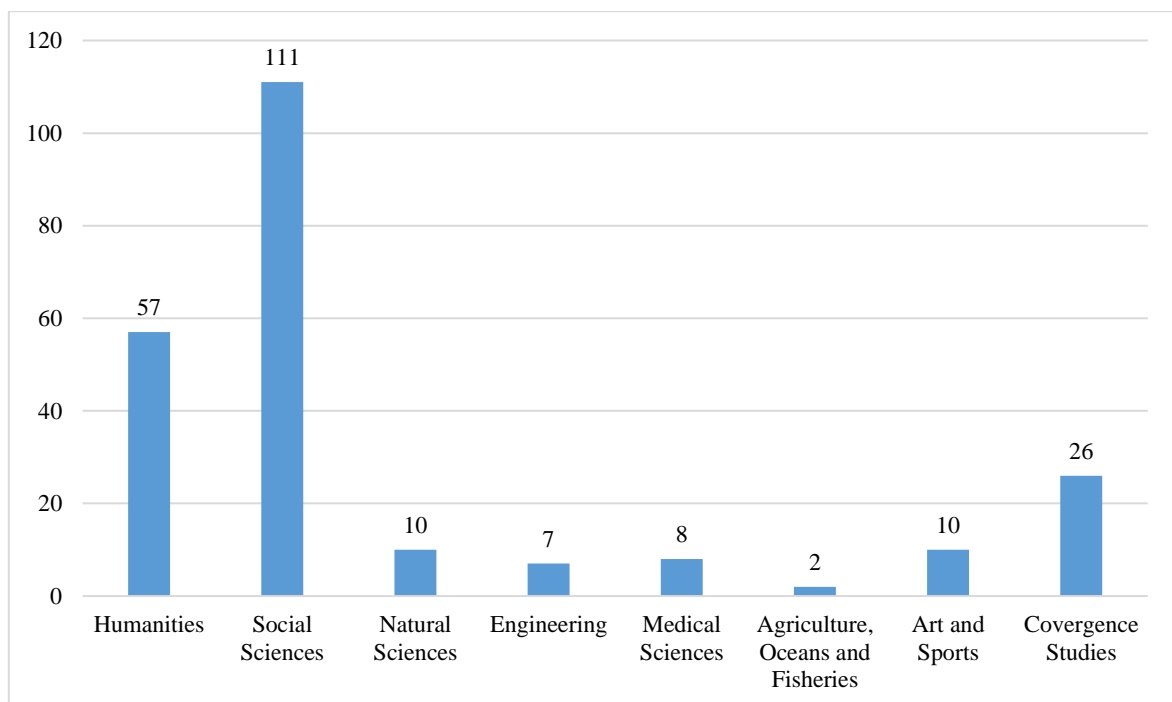
In the semantic network structure, the node “Portugal” is the largest. The connections between “Portugal” and “policy,” “Spain,” “study,” and “case” is conspicuous, meaning that these words and “Portugal” frequently co-occurred. This is due to extant research’s frequent treatment of various policies surrounding Portugal, especially in research on COVID-19 response, cultural policy, immigration policy, and domestic and EU policies. The linkage between “Portugal” and “case” indicates that case studies of Portugal account for most of the Portugal-related studies in the humanities and social sciences.

“Immigration” and “law” also had a strong link, indicating frequent co-occurrence. Article titles such as “Changes in Portuguese Immigration Law Related to the Golden Visa System,” “Trends and Challenges in Portuguese Immigration Law: Analysis on the Revision Direction of Immigration Law: Focusing on the European Integration and Brexit Issue,” and “EU-UK Trade and Cooperation Agreement and Portuguese Immigration Law” show the steadily increasing interest in the trends of Portugal’s immigration law, mainly among legal and area studies scholars, between 2020 and 2021.

The node linking “Portugal” and “Spain” is also noteworthy on account of its linkage with various nodes in relation to culture, tourism, geography, political change, etc. Portugal has been often studied in tandem with Spain due to their geographical proximity; political, economic, and social similarities; and historical connection. For this reason, Portugal and Spain are treated as case studies concurrently, with some studies comparing the two countries. Titles of representative comparative studies include “The Cultural Code and Ways of Communication Between Spain and Portugal,” “European Islands Management and Tourism Policy: Focusing on the cases of Spain and Portugal,” “A Study on the Kraak Porcelain for Portugal and Spain Market During Ming Dynasty (1368-1644),” and “Political Change in Southern Europe: Greece, Spain, and Portugal in the Making of the Modern World.”

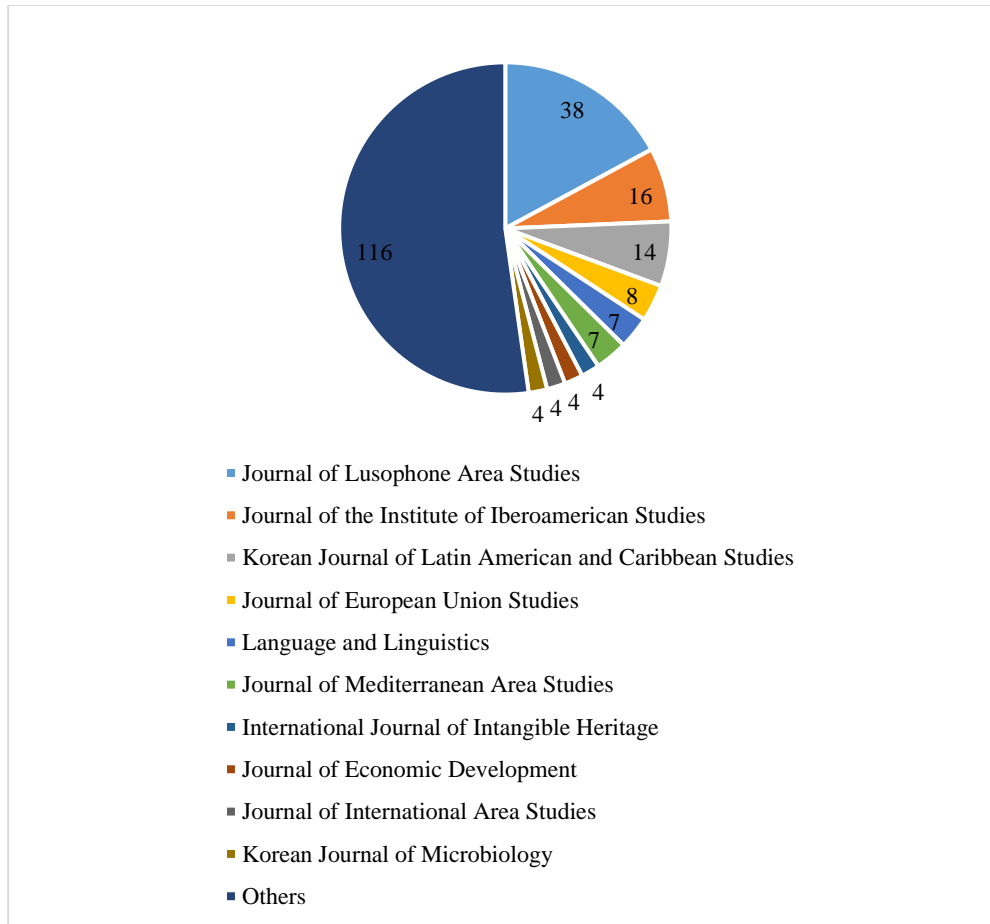
4.2.3 Discussion

The results of the keyword analysis and semantic network analysis lead to the following conclusions. First, the topics of research related to Portugal in Korea have been diverse, with most studies being conducted in the social sciences and addressing Portugal’s politics, economy, society, culture, and policy. Portugal has been also studied in humanities disciplines such as language and literature. Second, research treating Portugal as a single case study have been conducted in the context of the EU, Europe, CPLP, or Portuguese history, facilitating an in-depth understanding of Portugal’s connectivity at various levels. Third, Portugal has also been the subject of comparative research, often being with southern European countries with high geographical, linguistic, political, economic, and sociocultural similarities, especially Spain.



[Fig. 4] Number of Research Papers Related to Portugal by Field (1996-2022)

As [Fig. 4] shows, of the 231 Portuguese-related papers published between 1996 and 2022, 111 belonged to the field of social sciences. There were 57 papers in humanities disciplines. In other words, about 73% of Portugal-related studies were conducted in the humanities and social sciences, which are the traditional domain of area studies. On the other hand, only 10 papers were in the natural sciences, 7 in engineering, 8 in medicine, 2 in agriculture and fisheries, and 10 in the arts and sports. There were 26 Portuguese studies papers in the field of convergence research, with this number expected to increase as convergence and interdisciplinary research reemerges.



[Fig. 5] Number of Research Papers Related to Portugal by Journal (1996-2022)

There are currently 5,790 academic journals in Korea. Among them, papers about Portuguese studies are mainly concentrated in area studies-related journals. There are 38 Portuguese studies papers in the *Journal of Lusophone Area Studies*, the only academic journal in Korea directly related to Portugal, and 16 papers have also been published in the *Journal of the Institute of Ibero American Studies*. There are also 14, 8, and 7 Portuguese studies papers in the respective Latin American and European Studies-related journals, which are indirectly related to Portugal: *Korean Journal of Latin American and Caribbean Studies*, *Journal of European Union Studies*, and *Journal of Mediterranean Area Studies*. Meanwhile, papers related to the Portuguese language are mainly published in the aforementioned *Journal of Lusophone Area Studies* and *Language and Linguistics*.

In summary, the number of Portugal-related studies in Korea was highly limited until the 1990s, but in the 2000s, the number of related departments and researchers began to increase steadily. Nevertheless, compared to studies on major countries surrounding the Korean Peninsula, such as the United States, China, Japan, and Russia, research on Portuguese studies still has a long way to go.

5. Conclusion and Implications

Research on Portugal has become vibrant field of study throughout the world due to its historical, political and social dynamics and has thus received scholarly attention from various disciplines. In this context, this study aimed to examine issues and trends in Portuguese studies in Korea. To achieve this research objective, the study employed a text-mining technique, including keyword analysis based on TF-IDF and semantic network analysis, based on 231 academic papers on Portugal published between 1996 and 2022.

Based on the findings, the following claims can be verified. First, the topics of research related to Portugal in Korea have been diverse, with most studies being conducted in the social sciences and addressing Portugal's politics, economy, society, culture, and policy. Portugal has been also studied in humanities disciplines such as language and literature. Second, research treating Portugal as a single case study have been conducted in the context of the EU, Europe, CPLP, or Portuguese history, facilitating an in-depth understanding of Portugal's connectivity at various levels. Third, Portugal has also been the subject of comparative research, often being with southern European countries with high geographical, linguistic, political, economic, and sociocultural similarities, especially Spain.

In Korea, there are very few universities that offer related majors due to the lack of interest in Portugal, and the development of related academic research is also not noticeable. For students learning Portuguese, having a greater interest in Brazil than in Portugal is also a factor that hinders the development of Portugal-related area studies. This is the time when more attention, including government-level investment in area studies, is required to spur academic interest in Portugal and diversity of research topics.

This study is meaningful in that it is the first to analyze trends related to Portuguese studies in Korea. However, the following limitations exist. In addition to simple text-mining analysis, a more in-depth study would have been conducted if qualitative content analysis had also been conducted. In addition, Korea's specificity could have been better captured by comparing Portugal-related research trends in Korea and other countries. These limitations will be addressed through follow-up research.

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