

Comparative Analysis of Literature Needs Between Domestic and International Interdisciplinary Researchers: A Case Study of the South China Sea Dispute (Postprint)

Authors: Wang Xincal, Yang Qian, Haining Wang

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Abstract

[Purpose/Significance] To analyze the characteristics of literature demands among domestic and international interdisciplinary researchers and compare their similarities and differences, thereby providing a basis for literature assurance in interdisciplinary research and promoting international cooperation in such endeavors. [Method/Process] Employing citation analysis, this study examines journal and book citations from articles on the South China Sea dispute published in CSSCI and Web of Science between 1998 and 2016, analyzing the features and disparities of citations in domestic versus international research from perspectives of chronological distribution, citation frequency, disciplinary distribution, and publishing institutions. [Results/Conclusion] Domestic research exhibits high dependence on relatively recent Chinese journals and classic foreign-language books, while Chinese books lack international recognition. Overall, South China Sea dispute research tilts toward humanities and social sciences, though international research demonstrates a broader and more balanced disciplinary distribution of citations compared to its domestic counterpart. Authoritative, mainstream publishers constitute a common choice for both domestic and international research, while a few institutional publishers have begun to enter the purview of interdisciplinary researchers.

Full Text

A Comparative Analysis of the Collection Needs of Domestic and International Interdisciplinary Researchers: A Case Study of the South China Sea Dispute Issue

Wang Xincal^{1, 2}, Yang Qian¹, Wang Haining³

¹Center for Studies of Information Resources, Wuhan University, Wuhan 430072

²Wuhan University Library, Wuhan 430072

³PLA 66028 Unit, Chengde 067000

Abstract: [Purpose/Significance] This study analyzes the characteristics and differences in literature demands between domestic and international interdisciplinary researchers to provide a basis for literature guarantee work in interdisciplinary research and promote international cooperation. [Method/Process] Using citation analysis, this research examines journal and book citations from articles on the South China Sea dispute published in CSSCI and Web of Science between 1998–2016, analyzing citation patterns from perspectives of chronological distribution, citation frequency, subject distribution, and publishing institutions. [Result/Conclusion] Domestic research shows high dependence on newer Chinese journals and classic foreign books, while Chinese books lack international recognition. South China Sea dispute research overall leans toward humanities and social sciences, but international research demonstrates more extensive and balanced subject distribution in citations than domestic research. Authoritative, mainstream publishers are common choices for both domestic and international researchers, though a few institutional publishers have begun attracting researchers' attention.

Interdisciplinarity represents a major trend in contemporary academic research, driven both by disciplines' internal development needs and the objective requirements for solving increasingly complex real-world problems [1]. The proliferation of interdisciplinary research projects and collaborative innovation centers has placed higher demands on libraries' literature guarantee capabilities, making it imperative to understand the literature needs of interdisciplinary researchers. The "problem-oriented" nature of interdisciplinary research accelerates academic collaboration across institutions, regions, and internationally. Faced with the same research topic, what specific differences exist in literature needs between domestic and international (hereafter "international" refers to "overseas") researchers deserves in-depth investigation.

2 Sample Construction and Methods

This study employs citation analysis to compare domestic and international literature needs for South China Sea dispute research. The CSSCI database covers 1998–2016, so Web of Science's search timeframe was correspondingly set to 1998–2016 for consistency.

2.1 Sample Construction

Using "South China Sea dispute" and "South China Sea arbitration" (in Chinese) and "South China Sea dispute" and "South China Sea arbitration" (in

English) as search terms, we conducted title searches in the CSSCI database and Web of Science Core Collection. Search results from both databases were separated, deduplicated, and their references extracted as samples. This approach was adopted for several reasons: (1) Both CSSCI and Web of Science databases include high-level domestic and international papers, ensuring comparability and representativeness; (2) The South China Sea dispute is long-standing and complex, primarily involving sovereignty disputes, resource utilization disputes, and legal disputes [2], requiring researchers to adopt interdisciplinary perspectives; (3) “South China Sea arbitration” and “South China Sea dispute” are complementary and closely related; (4) Title searches yield more direct and accurate results while avoiding judgments about article-topic relevance.

Between 1998–2016, CSSCI included 76 South China Sea dispute-related papers (hereafter “source documents”) with 1,753 references. Individual papers cited between 2–62 references, averaging 24 per paper. Journal references numbered 506 (28.86% of total references), book references 345 (19.68%), followed by online references 320 (18.25%), and government/non-government organization publications 306 (17.46%). During the same period, Web of Science contained 55 South China Sea dispute-related papers; after removing 13 by Chinese authors, 42 remained with 1,357 references, citing 3–76 references per paper (average 32). Journal references totaled 373 (27.49%), book references 279 (20.56%) .

Since this study focuses on journal and book literature needs, non-journal/book references were not analyzed in depth. In CSSCI data collection, we employed manual download and registration of each reference, which offers three advantages: (1) It excludes interference from non-standard journal and author citations, registers references existing as footnotes, and ensures citation completeness [3]; (2) It avoids abbreviation and omission issues that may occur with direct CSSCI export; (3) It facilitates accurate extraction of minor-language citation information through auxiliary means, which is difficult to identify in Chinese environments. Web of Science citation information was system-exported due to its standardized referencing and limited access to some source documents.

2.2 Methods

Citation analysis, also called “citation checking,” is a mature research method. “Citations” include both references in footnotes and bibliographies, whose information about publication year, author, title, and publisher has proven effective for exploring users’ literature usage habits [4]. Although research shows discrepancies between literature needs identified through citation analysis and authors’ actual needs [5], citation data’s strong quantifiability and reduced influence from survey subjects’ subjective factors (compared to interviews) provide valuable reference for inferring researchers’ literature needs in large samples. Thus, this method remains effective for evaluating library collection rationality, generating core publication lists, and weeding collections [6].

To avoid artificially high citation frequencies for certain journals or books due

to author citation preferences that may not reflect actual literature needs, this study performed intra-document deduplication—if one paper cited the same journal article or book multiple times for different content, it was counted only once.

3 Findings and Discussion

3.1 Overall Situation

In domestic research, journal and book references span 1896–2016; international South China Sea dispute references cover 1936–2016 for journals and 1944–2016 for books. Given the large quantity difference, percentages reflect chronological distribution.

3.2 Chronological Distribution of Citations

Citation chronological distribution reflects researchers' literature usage time-frame, providing reference for library acquisition and weeding. Citation age (time between publication and citation) is a relative concept better reflecting literature “newness” than publication year alone.

3.2.1 Journals As shown in [Figure 1: see original paper], domestic and international journal citation age distributions show similar trends, concentrating in the publication year and following three years, with peaks in the first year after publication (19.17% domestic, 11% international). This differs from Meng Fanhong et al.'s 2012 finding [7] that journal citation peaks appear 3–6 years after publication, likely because South China Sea research requires high time-liness and cited literature must closely connect with current events. Domestic research cited 97 journal articles published within one year, including 79 Chinese articles (81%), indicating greater acceptance of domestic perspectives on new viewpoints. Domestic research shows higher proportions for citations 1–4 years post-publication, but international research exceeds domestic in citing articles published 15–18 and 25+ years earlier, demonstrating domestic research's clear demand for newer journal articles while international research excels in utilizing classic articles. Both domestic and international research cite 30 articles published 25+ years earlier (5.93% domestic, 8.04% international), with two overlapping source journals: *American Journal of International Law* and *Ocean Development and International Law*, though no identical articles were found. Domestic research includes 25 classic English articles (published 25+ years earlier, 83.33%), showing high recognition of foreign classics and their vitality. International research includes only one classic Chinese journal article (published 25+ years earlier), whose source article's author is Thai, indicating Chinese journal literature's limited international influence, though this may relate to the South China Sea dispute's 特殊性 where much foreign research avoids or downplays the issue's essence and criticizes China, making foreign scholars potentially resistant to Chinese perspectives [8].

3.2.2 Books As shown in [Figure 2: see original paper], book citation age trends resemble journal patterns, with recently published books comprising the main portion. In domestic research, books published within 20 years account for 73.33% of citations; in international research, 83.15%. International research shows notably higher proportions (5.87% more) for books published 10–14 years earlier. Domestic research emphasizes classic literature, with books published 30+ years earlier accounting for 12.75% domestically versus 6.82% internationally. Further examination reveals domestic research cites 44 books published 30+ years earlier; excluding 12 international law references and dictionaries, the remaining 32 books account for 9.28% of book citations—similar to international research’s 6.82%. Among these 32 books, 24 are foreign books (some translated), representing 75%, showing foreign classics occupy an important position in domestic South China Sea research. International research cites only Fu Kuen-cheng’s *The Sovereignty and Mineral Resources of the South China Sea: History and Law* in Chinese; the other 18 classics are foreign books. Overlapping classics between domestic and international research include *Acquisition of Territory in International Law* and *General Principles of Law as Applied by International Courts and Tribunals*.

3.3 Citation Frequency Analysis

3.3.1 Journals Domestic research generated 506 journal citations from 207 journals (128 Chinese, 73 English, 6 Korean). Seventy-nine journals (38.16%) were cited \$2 times, while 128 (61.84%) were cited only once. *Ocean Development and International Law* received the highest citations (21). International research produced 373 journal citations from 140 journals (126 English, 14 Chinese). Fifty-two journals (37.14%) were cited \$2 times, while 88 (63.86%) were cited once. *Ocean Development and International Law* led with 52 citations. Five highly-cited journals overlap between domestic and international research: *Ocean Development and International Law*, *American Journal of International Law*, *Chinese Journal of International Law*, *Contemporary Southeast Asia*, and *International Journal of Marine and Coastal Law*.

Domestic research shows 44% (224) of journal citations come from the top 10% (21) of journals; the top 10 journals contain 28% of citations. International research shows 50% (186) of citations come from the top 11% (15) of journals; the top 10 contain 42% of citations. Applying Bradford’s Law, domestic research’s 506 citations divide into three groups of 162, 178, and 166 citations corresponding to 12, 48, and 147 journal titles (ratio 1:4:12, approximating the $1:n:n^2$ formula). International research’s 373 citations divide into 126, 125, and 122 citations corresponding to 6, 30, and 104 titles (ratio 1:5:17, also approximating Bradford’s Law).

Both domestic and international research prefer core journals and classic articles, though international research uses more concentrated journals while requiring more “long-tail journals,” reflecting broader research vision and attention to less-known or less-accessible resources. Numerous single-citation journals also

reflect the interdisciplinary nature of the research [9]. Tables 2 and 3 show the top 20 journals by citation frequency and the number of different articles citing each journal.

Table 2 shows domestic research where *Contemporary International Relations* was cited 9 times across 9 different papers, while *Xiangtan University Journal (Philosophy and Social Sciences Edition)* was cited 10 times by only 2 papers—high per-paper citation but low overall demand. In international research, *Ocean Development and International Law* was cited 52 times but by only 17 papers, whereas *Asian Survey* had lower overall citations but broader citation range.

3.3.2 Books Domestic research generated 345 book citations from 284 books (172 Chinese, 103 English, 7 Vietnamese, 1 French, 1 Japanese). Thirty-nine books (14%) were cited \$ \$2 times, while 244 (86%) were cited once. *Historical Archives of China's South China Sea Islands* had the highest citation frequency (6). International research produced 279 book citations from 220 books (207 English, 9 Chinese, 3 French, 1 Italian). Thirty-three books (15%) were cited \$ \$2 times, while 187 (85%) were cited once. *Contest for the South China Sea* led with 6 citations. Five overlapping highly-cited books between domestic and international research are all English books (Tables 4 and 5).

3.4 Subject Distribution of Citations

Current South China Sea dispute research primarily utilizes social sciences and humanities knowledge, with limited application of science and engineering fields. To understand specific subject distribution and proportions, we identified citation subjects using classification numbers from the National Library of China, Shanghai Library, and CASHL for Chinese books, and the Library of Congress and British Library for foreign books, unified under the Ministry of Education's classification system. For journals covering multiple specific subjects, each subject was counted separately; for broadly comprehensive journals, they were classified as comprehensive humanities/social sciences.

3.4.1 Journals Journal subjects show both concentration and dispersion: concentration appears as most journals clustering in a few subjects (politics and law account for 70–80% of needs), while dispersion appears in broad subject coverage across literature, history, philosophy, and sciences. Domestic research cites slightly lower proportions of political and legal journals than international research, but military journals number 102 (13.24%), significantly higher than international research's 15 (2.96%). Except for 4 environmental science, 2 geography, 1 aquaculture, and 1 natural science journal, all domestic citations are humanities/social sciences—markedly different from international research's 19 environmental science, 6 energy dynamics, 2 marine science, and 1 each in engineering, geography, and ecology journals. International research demonstrates broader subject distribution in journal citations (Table 6).

3.4.2 Books Similar to journals, law and politics books account for 70–80% of domestic and international book needs. Domestic research cites 5 geography books and otherwise only humanities/social sciences across 13 subjects; history books number 18 (5.22%). International research shows prominent linguistics (20, 8.24%) and military books (23, 7.17%). Besides 3 geography books, international research includes 1 each in marine science, architecture, environmental science, and transportation—more balanced distribution. International research shows more concentrated book citation distribution by quantity but greater subject balance overall.

3.5 Publishers of Book Citations

Different publishers' books vary significantly in content quality. Some publishers are preferred for meticulous editing and complete annotations. Book citations directly indicate publishers, and ISBNs facilitate detail verification.

Tables 8 and 9 list publishers with books cited \$ \$4 times. Domestic research includes 22 such publishers (15 Chinese), whose books account for 64.35% of citations; 13 publishers account for half of all book citations. Law Publishing House leads with 29 citations. International research includes 13 such publishers (all international), accounting for 58% of citations; 9 publishers account for 51.61% of citations. Routledge leads with 46 citations (16.49% citation rate). Six publishers—Martinus Nijhoff Publishers, Oxford University Press, Cambridge University Press, Routledge, Kluwer Law International, and Ashgate Publishing—are important in both domestic and international research. International research shows stronger publisher clustering effects, with fewer publishers receiving disproportionate preference. Authoritative, mainstream publishers are common choices, while a few institutional publishers like ISEAS Publishing have entered researchers' 视野.

4 Conclusions and Recommendations

International cooperation is a significant trend in interdisciplinary research, with collaborative literature resource construction and sharing as key components. Different literature needs between domestic and international researchers provide clues for characteristic resource development and mutual construction to achieve complementary advantages. Strengthening literature guarantee work based on coordinating these needs positively promotes international interdisciplinary cooperation. South China Sea dispute research shows distinct citation characteristics: (1) Journals and books no longer dominate absolutely; extensive citation of government/non-government publications and online literature warrants deeper study. (2) Domestic research emphasizes journal literature timeliness; international research shows similar characteristics for book citations. (3) Domestic research has strong demand for foreign classics, but Chinese literature struggles for international recognition. (4) International research literature needs are more concentrated, with large “long-tail literature” proportions. Though South China Sea research overall leans toward humanities and social

sciences, international research shows more extensive and balanced subject distribution than domestic research. (5) Authoritative, mainstream publishers are common choices, with a few institutional publishers entering researchers' 视野.

These new characteristics challenge existing library literature guarantee work. The substantial growth in non-traditional literature needs contrasts with long-standing journal-focused collection strategies. Expanded demand for both recent and classic literature adds dual pressure for continuous acquisition and retrospective collection. Strong foreign classic literature demand challenges the already inadequate CASHL guarantee system [11]. "Long-tail literature" needs are dispersed and difficult to predict. Based on these findings, libraries should adopt the following strategies: coordinate traditional and non-traditional literature collection, building special literature databases according to interdisciplinary research types and needs; rationally allocate print journals to ensure continuity in digital environments while securing special funds for retrospective collection [12]; increase national investment in foreign literature, especially foreign books, and strengthen CASHL-led foreign literature guarantee mechanisms; return to classic selection and patron-driven acquisition models, constructing domain-expert interview models for interdisciplinary fields to address dispersed "long-tail literature" characteristics and further improve literature guarantee rates.

5 Research Limitations

Using title searches to obtain directly relevant South China Sea dispute articles benefits relevance but affects sample comprehensiveness. Balancing recall and precision in information retrieval warrants consideration in similar bibliometric studies. Though journals and books dominate current subject literature needs and remain library collection priorities, this study only briefly describes other literature types like government/non-government publications and online literature. Additionally, due to incomplete citation information, we did not analyze core authors, core institutions, or co-citation patterns—areas requiring future attention.

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Author Contributions:

Wang Xincal: Conceived research ideas and methods, designed paper framework, revised paper;

Yang Qian: Processed and analyzed data, wrote and revised paper;

Wang Haining: Revised paper.

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plinary researchers, in order to provide a basis for literature guarantee of interdisciplinary research and promote cooperation in international interdisciplinary researches. [Method/process] This article analyzes the characteristics and differences in domestic and international research over the issue of the South China Sea dispute from the aspects of age distribution, citation frequency, subject distribution and publishing institution by using citation analysis. Journals and books cited in the related articles in CSSCI and Web of Science from 1998 to 2016 are samples in this research. [Result/conclusion] The domestic researchers have a high degree of dependence on new Chinese journals and classic foreign books, Chinese books lack of international recognition. The South China Sea dispute research is biased towards the field of humanities and social sciences as a whole, but the international research is more extensive and balanced in the distribution of citation subjects. Authoritative and mainstream publishing houses are common choices between domestic and foreign research, a small number publishers of research institution also catch researchers' attention.

Keywords: South China Sea dispute; domestic; international; citation analysis; literature demand; interdisciplinary

Note: Figure translations are in progress. See original paper for figures.

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