

## Citation Analysis of Doctoral Theses Awarded by the Department of Commerce, University of Delhi: A Study

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### ABSTRACT

This study provides a bibliometric analysis of 6,719 journal citations identified in doctoral theses in Commerce submitted to the University of Delhi between 2007 and 2016. The primary goals are to analyze authorship trends, identify the types of publications mentioned, and compile a core journal list that is regularly referenced in the field of Commerce. Furthermore, the survey seeks to identify the most productive publications and the top nations contributing to commerce research. The data indicate significant changes in the citation activity of doctoral researchers, emphasising the importance of journal articles over other document categories, such as books or conference proceedings. Authorship analysis reveals the predominance of single and joint authorship in the referenced literature, indicating the changing nature of academic collaboration in business research. A core list of highly cited journals offers researchers, libraries, and institutions important information about scholarly priority areas and resource acquisition. The study also examines the geographic distribution of the referenced literature, identifying the nations and publications that have the most influence in the field. The results support bibliometric research and have applications in enhancing library collections, understanding research patterns, and informing evidence-based academic decision-making in the business sector.

**Keywords:** Authorship-Pattern, Citation Analysis, Commerce, Universities, Delhi.

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### 1. INTRODUCTION

Citation analysis of doctoral theses clearly indicates patterns of information use by users in libraries and information centres (Kagra 2019). Citation analysis is one of the most pertinent techniques for identifying the core sources of information in particular fields. Citation analysis helps develop and manage collections in libraries and information centres. (Gupta and Khare, 2013) Library and information professionals face financial problems and must meet daily information needs to develop the most useful journals. (Veerabasavaiah 2011)

### 2. LITERATURE REVIEW

Kaur and Sehgal (2021) examined doctoral theses and applied various parameters of citation analysis. Siddiqui et al. (2020) analysed authorship patterns and the spatial-temporal distribution of publications, identifying the most frequently consulted sources of information among research scholars. Mustafa (2019) investigated dissertations submitted to Maulana Azad National Urdu University, Hyderabad, reviewing 86 dissertations and their bibliographies from 2008 to 2010, which revealed the use of diverse information sources. Singh and Chauhan (2019) assessed doctoral theses

in psychology awarded by H.N.B. Garhwal Central University, Srinagar (Uttarakhand), analyzing a total of 3,442 citations. Their study also provided valuable insights for developing library collection policies in the field of psychology.

Raju (2018) examined the research productivity in library and information science literature, focusing on the half-life and obsolescence of publications over time. Kaur and Rattan (2017) analyzed citations from sociology theses submitted to Punjabi University, Patiala, between 2000 and 2014, finding that the majority of core journals originated from India, the United States, and the United Kingdom. Kagra (2016) evaluated twenty-one research publications employing citation analysis in the social sciences between 1974 and 2014, with an emphasis on political science and history. Using citation data from doctoral theses and journal articles, the study explored the primary sources of knowledge used by scholars in these disciplines. Singh and Garg (2014) investigated the citation patterns of doctoral theses in the social sciences at the University of Delhi between 1995 and 2008, analyzing them through bibliometric parameters.

### 3. STATEMENT OF THE PROBLEM

Literature cited in doctoral theses by research scholars of academic institutions reflects the usefulness of the academic library, which the researchers usually use. Librarians may utilize this information to plan their collections. The sources of information are increasing in this information age. However, leading patrons to useful information is the primary role of a library professional. To assist the reader, a tool such as citation analysis is required, which directs the user to the important references that have been utilized in the past.

### 4. OBJECTIVES OF THE STUDY

- To find out authorship—the pattern of citations;
- To find out the document-type-wise distributions of citations;

- To make a list of the distribution of journals;
- To find out the publisher-wise distribution of citations, and
- To find out the country-wise distribution of citations.

### 5. SCOPE AND LIMITATIONS OF THE STUDY

Doctoral theses in Commerce from 2007 to 2016, awarded by the University of Delhi, were used in this research. An academic library's primary goal is to build a comprehensive, need-based, and constantly updated collection of journals and maintain them by disseminating them. Librarians and information professionals can plan to improve information sources in Commerce more effectively.

The research looked at doctoral theses in Commerce that had been given out by the University of Delhi (2007–2016). The study is limited to those doctoral theses that were accessible at the Central Library and Ratan Tata Library of the University of Delhi, and it only analysed the journal citations included in these theses.

### 6. RESEARCH METHODOLOGY

For this research, doctoral theses in Commerce from the University of Delhi between 2007 and 2016 were analyzed. The data for this study were gathered from the references at the end of each chapter and the bibliographies at the end of every thesis. The citations have been collated, tabulated, and analyzed. Ultimately, a list of core journals was compiled using the most frequently cited journals in Commerce as its foundation.

### 7. DATA ANALYSIS AND INTERPRETATION

Present the analysis of collected data systematically using tables, graphs, and statistical tools. Explain how the data support or reject the hypotheses or meet the research objectives. Interpret results logically and relate them to existing theories or prior findings.

Table 1. Authorship-Pattern

S.No.	No. of Authors	No. of Citations	Total No. of Authors	Citations %	Authors %	Cumulative	Cumulative	Rank
						Citations %	Authors %	
1	Single Authors	2646	2646	39.38	20.90	39.38	20.90	01
2	Two Authors	2631	5262	39.16	41.57	78.54	62.47	02
3	Three Authors	1142	3426	17.00	27.07	95.54	89.54	03
4	More than Three Authors	299	1324	4.45	10.46	99.99	100.00	04
5	Not Identified	01	-	0.01	0.00	100.00	100.00	-
<b>Total</b>		<b>6719</b>	<b>12658</b>	<b>100.0</b>	<b>100.0</b>	-	-	-

**Source:** Author's own work.

It is indicated from Table 1 that single-authored citations are cited the most with 2646 (39.38%) citations, while two-authored citations are second highest with 2631 (39.16%) citations, followed by three-authored citations accounting for 1142 (17.00%) citations, and more than three-

authored citations accounting for 299 (4.45%) citations. It is concluded from the analysis that multi-authored papers are cited in greater numbers than single-authored papers.

**Table 2. Document Type -Wise Citations**

S.No.	Document Types	No. of Citations	Citations %	Cumulative No's	Cumulative %	Rank
01	Journal Articles	6719	49.42	6719	49.42	01
02	Books	2455	18.06	9174	67.48	02
03	Electronic Resources	1455	10.70	10629	78.18	03
04	Working Papers	517	3.80	11146	81.98	04
05	Book Chapters	384	2.82	11530	84.80	05
06	Magazines	318	2.34	11848	87.14	06
07	Reports/Reviews	286	2.10	12134	89.25	07
08	Government Publications	266	1.96	12400	91.20	08
09	Conference Proceedings	265	1.95	12665	93.15	09
10	Theses/Dissertations	166	1.22	12831	94.37	10
11	Handbooks/Manuals	107	0.79	12938	95.16	11
12	Newspaper Clippings	105	0.77	13043	95.93	12
13	Manuscripts	23	0.17	13066	96.10	13
14	Dictionaries	12	0.09	13078	96.19	14
15	Newsletters	08	0.06	13086	96.25	15
16	Archives	06	0.04	13092	96.29	16
17	Others	48	0.35	13140	96.65	-
18	Not Identified	456	3.35	13596	100.00	-
<b>Total</b>		<b>13596</b>	<b>100.00</b>	-	-	-

**Source:** Author's own work.

As shown in Table 2, research scholars employ various types of documents. It is evident from the table that journal articles contribute the highest number of citations, accounting for 6719 (49.42%) out of 13596 citations. Books contribute the second-highest number of citations, accounting for 2455 (18.06%). Electronic resources are the third

highest cited document with 1455 (10.70%), followed by working papers with 517 (3.80%) citations, book chapters with 384 (2.82%), magazines with 318 (2.34%) citations, reports and reviews with 286 (2.10%), government publications with 266 (1.96%), conference proceedings with 265 (1.95%), and theses and dissertations with 166 (1.22%). The other documents contributed 309

(2.27%) citations. Due to the lack of correct information, 456 (3.35%) citations could not be identified.

**Table 3. Distribution of Journals**

S. No.	Rank	No. of Journals	Cumulative No. of Journals	No of Citations	Total No of Citations	Cumulative of Citations	% of Citations	Cumulative % of Citations	% of Total Journals	Cumulative % of Total Journals
01	01	01	01	322	322	322	4.79	4.79	0.08	0.08
02	02	01	02	189	189	511	2.81	7.61	0.08	0.15
03	03	01	03	171	171	682	2.55	10.15	0.08	0.23
04	04	01	04	158	158	840	2.35	12.50	0.08	0.31
05	05	01	05	154	154	994	2.29	14.79	0.08	0.38
06	06	01	06	100	100	1094	1.49	16.28	0.08	0.46
07	07	01	07	98	98	1192	1.46	17.74	0.08	0.53
08	08	01	08	96	96	1288	1.43	19.17	0.08	0.61
09	09	01	09	94	94	1382	1.40	20.57	0.08	0.69
10	10	01	10	75	75	1457	1.12	21.68	0.08	0.76
11	11	01	11	72	72	1529	1.07	22.76	0.08	0.84
12	12	01	12	64	64	1593	0.95	23.71	0.08	0.92
13	13	01	13	59	59	1652	0.88	24.59	0.08	0.99
14	14	01	14	58	58	1710	0.86	25.45	0.08	1.07
15	15	01	15	57	57	1767	0.85	26.30	0.08	1.15
16	16	01	16	56	56	1823	0.83	27.13	0.08	1.22
17	17	01	17	54	54	1877	0.80	27.94	0.08	1.30
18	18	01	18	52	52	1929	0.77	28.71	0.08	1.38
19	19	02	20	51	102	2031	1.52	30.23	0.15	1.53
20	20	01	21	50	50	2081	0.74	30.97	0.08	1.60
21	21	02	23	48	96	2177	1.43	32.40	0.15	1.76
22	22	01	24	47	47	2224	0.70	33.10	0.08	1.83
23	23	01	25	46	46	2270	0.68	33.78	0.08	1.91
24	24	01	26	44	44	2314	0.65	34.44	0.08	1.99
25	25	01	27	43	43	2357	0.64	35.08	0.08	2.06
26	26	01	28	42	42	2399	0.63	35.70	0.08	2.14
27	27	01	29	41	41	2440	0.61	36.31	0.08	2.22
28	28	02	31	40	80	2520	1.19	37.51	0.15	2.37
29	29	02	33	36	72	2592	1.07	38.58	0.15	2.52
30	30	02	35	35	70	2662	1.04	39.62	0.15	2.67
31	31	02	37	33	66	2728	0.98	40.60	0.15	2.83
32	32	02	39	32	64	2792	0.95	41.55	0.15	2.98
33	33	01	40	31	31	2823	0.46	42.02	0.08	3.06

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S. No.	Rank	No. of Journals	Cumulative No. of Journals	No of Citations	Total No of Citations	Cumulative of Citations	% of Citations	Cumulative % of Citations	% of Total Journals	Cumulative % of Total Journals
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34	34	02	42	29	58	2881	0.86	42.88	0.15	3.21
35	35	02	44	28	56	2937	0.83	43.71	0.15	3.36
36	36	01	45	27	27	2964	0.40	44.11	0.08	3.44
37	37	02	47	26	52	3016	0.77	44.89	0.15	3.59
38	38	02	49	25	50	3066	0.74	45.63	0.15	3.74
39	39	02	51	24	48	3114	0.71	46.35	0.15	3.90
40	40	03	54	23	69	3183	1.03	47.37	0.23	4.13
41	41	05	59	22	110	3293	1.64	49.01	0.38	4.51
42	42	03	62	21	63	3356	0.94	49.95	0.23	4.74
43	43	04	66	20	80	3436	1.19	51.14	0.31	5.04
44	44	02	68	19	38	3474	0.57	51.70	0.15	5.19
45	45	06	74	18	108	3582	1.61	53.31	0.46	5.65
46	46	03	77	17	51	3633	0.76	54.07	0.23	5.88
47	47	04	81	16	64	3697	0.95	55.02	0.31	6.19
48	48	06	87	15	90	3787	1.34	56.36	0.46	6.65
49	49	6	93	14	84	3871	1.25	57.61	0.46	7.10
50	50	07	100	13	91	3962	1.35	58.97	0.53	7.64
51	51	11	111	12	132	4094	1.96	60.93	0.84	8.48
52	52	10	121	11	110	4204	1.64	62.57	0.76	9.24
53	53	11	132	10	110	4314	1.64	64.21	0.84	10.08
54	54	16	148	09	144	4458	2.14	66.35	1.22	11.31
55	55	25	173	08	200	4658	2.98	69.33	1.91	13.22
56	56	18	191	07	126	4784	1.88	71.20	1.38	14.59
57	57	22	213	06	132	4916	1.96	73.17	1.68	16.27
58	58	47	260	05	235	5151	3.50	76.66	3.59	19.86
59	59	54	314	04	216	5367	3.21	79.88	4.13	23.99
60	60	76	390	03	228	5595	3.39	83.27	5.81	29.79
61	61	205	595	02	410	6005	6.10	89.37	15.66	45.45
62	62	714	1309	01	714	6719	10.63	100.00	54.55	100.00
<b>-</b>		<b>1309</b>	<b>-</b>	<b>2983</b>	<b>6719</b>	<b>-</b>	<b>100.00</b>	<b>-</b>	<b>100.00</b>	<b>-</b>

**Source:** Author's own work.

The ranking of journals is widely used in academic institutions to assess the excellence of journals. Journal rankings are designed to reveal a journal's place within its field and its associated status. The ranking of journals is a measurable study of peer-reviewed journals highlighting a scholar's impact in their field of interest. They have been introduced as official research assessment tools in numerous countries. A ranking list is a useful tool that helps in selecting journals. Extreme usage covers important and new literature or resources in a given subject field. The enormous growth of literature makes it difficult for librarians to decide which journals to subscribe to and which to discontinue. In this situation, the ranking of

journals helps to analyse and obtain a complete picture of any given journal for the purpose of continuing a subscription. Often, the ranking of journals helps in making decisions about collection development. This allows the librarians to study the interest, usefulness, and appropriateness of a particular group of users. It is observed from Table 3 that, in all, 6719 articles were scattered in 1309 journals. It is evident from Table 7 that The Journal of Finance occupies the first rank, accounting for 322 (4.79%) of the total citations. The Journal of Financial Economics secured a second rank with 189 (2.81%) citations, followed by the Journal of

Business Ethics with 171 (2.54%) citations, followed by a decreasing rank of journal citations.

**Table 4. Publisher-Wise Journals Citations**

S. No.	Publishers	No. of Citations	Citations%	Cumulative No's	Cumulative %	Rank
1	Elsevier	994	14.79	994	14.79	1
2	Wiley-Blackwell	825	12.28	1819	27.07	2
3	Emerald Group Publishing	441	6.56	2260	33.64	3
4	SAGE Publishing	400	5.95	2660	39.59	4
5	Springer Publishing Company	360	5.36	3020	44.95	5
6	American Finance Association	322	4.79	3342	49.74	6
7	Routledge	318	4.73	3660	54.47	7
8	Oxford University Press	212	3.16	3872	57.63	8
9	American Marketing Association	211	3.14	4083	60.77	9
10	American Psychological Association	203	3.02	4286	63.79	10
11	Others	2297	-	-	-	-
12	Not Identified	136	-	-	-	-
<b>Total</b>		<b>6719</b>	-	-	-	-

**Source:** Author's own work.

The high status of authors in society is motivated and supported by publishers through the production of quality publications. Table 4 clearly depicts that the most cited journals are published by Elsevier, which ranks first with a total number of 994 (14.79%) citations, followed by Wiley-Blackwell, ranking second with 825 (12.28%) citations, Emerald Group Publishing with 441 (6.56%) citations, and Sage

Publishing with 400 (5.95%). Additionally, the various publishers are listed below, along with their rankings. Below is the list of the top 44 publishers, out of 876 worldwide. Due to the lack of correct information, 136 (2.02%) citations could not be identified.

**Table 5. Country-Wise Journals Citations**

S. No.	Countries	No. of Citations	Citations %	Cumulative Nos.	Cumulative %	Rank
1	United States of America	3114	46.35	3114	46.35	1
2	United Kingdom	1101	16.39	4215	62.73	2
3	Netherlands	1002	14.91	5217	77.65	3
4	India	734	10.92	5951	88.57	4
5	Germany	365	5.43	6316	94	5
6	Switzerland	31	0.46	6347	94.46	6
7	Canada	26	0.39	6373	94.85	7
8	South Africa	18	0.27	6391	95.12	8
9	Japan	13	0.19	6404	95.31	9
10	Australia	11	0.16	6415	95.48	10
11	Others	112	-	-	-	-
12	Not Identified	192	-	-	-	-
<b>Total</b>		<b>6719</b>	-	-	-	-

Source: Author's own work.

It is inferred from Table 5 that the county-wise distribution of citations. The United States contributed 3,114 (46.35%) citations, followed by the United Kingdom with 1,101 (16.39%) citations and the Netherlands with 1,002 (14.91%) citations. India contributed 734 (10.92%) citations. The four countries collectively contributed 5951 (88.57%) citations, followed by a decreasing rank of country citations. Due to a lack of correct information, some citations (2.86%) could not be identified.

## 8. MAJOR FINDINGS OF THE STUDY

It has been observed that single-authored citations are cited the most. It has been observed that journal articles contribute the highest number of citations, followed by books, which contribute the second-highest number of citations, and electronic resources, which are the third-highest cited documents. The Journal of Finance occupies the first rank. It has been depicted that the most cited journals are published by Elsevier, followed by Wiley-Blackwell. It has been inferred that the United States contributed the most citations, followed by the United Kingdom. India contributed the most citations.

## 9. CONCLUSION

Based on 6,719 journal citations from doctoral theses in Commerce submitted to the University of Delhi between 2007 and 2016, this study presents a thorough bibliometric analysis that sheds light on how doctoral researchers utilise information. In addition to

highlighting scholarly communication behaviour within the field of Commerce, the study also examines the global and institutional influences shaping research outputs by analysing authorship trends, preferred document types, core journals, prolific publishers, and contributing countries.

The results confirm that citation analysis is a useful tool for assessing how information sources are utilised in scholarly research. Such studies are essential for making well-informed judgements regarding resource allocation in the light of the growing financial restrictions that university libraries and information centres confront. Librarians can optimise acquisition plans and prioritise the inclusion of vital and frequently referenced content in library collections by identifying core journals and dominant sources.

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