Comprehensive Analysis of Citation Patterns in Ph.D. Theses on Pali and Buddhist Studies Available at Rashtrasant Tukdoji Maharaj Nagpur University: An In-Depth Study

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This study analyses the citation patterns of doctoral theses of on Pali and Buddhist Studies. In this study total 46 Ph.D. theses on Pali and Buddhist Studies were analysed which is available in the Nagpur University Library and submitted to Pali and Prakrit Deparatment of RTMNU till the year 2024. The maximum number of theses in the Pali and Buddhist studies was submitted in the year 2009 i.e. (5, 10.9%). After that in the year 1991, 1993, 2013, 2019 i.e. (4, 8.7%) and year 2012 i.e. (3, 6.5%) theses were submitted to the department by Ph.D. Scholars and the least number of theses i.e. (1, 2.2 %) only one theses per year submitted in the year 1973,1982, 2003, 2004, 2008, 2015, 2016, 2017, 2018 however remaining years including 1975, 1980, 1987, 1989, 1997, 2010 theses submission was done 2, 4.3%. No theses were submitted in the years i.e. 1974, 1976 to 1979, 1981, 1983 to 1986, 1988, 1990, 1992, 1994 to 1996, 1998 to 2002, 2005 to 2007, 2011, 2014, 2020, and 2023 etc. The study concludes that together with other approaches, citation analysis still remains one of the most important tools to assess the usefulness of library holdings for postgraduate students' research activities.

1. Introduction

In the field of academic research, citation assist as an important mechanism for confessing sources, constructing upon existing knowledge, and establishing scholarly dependability with trust. The study of citation patterns within precise disciplines can provide reflective visions into the intellectual scenery and research rehearses of those fields. These research emphases

on a comprehensive analysis of citation patterns in Ph.D. theses on Pali and Buddhist Studies at Rashtrasant Tukdoji Maharaj Nagpur University.

Pali and Buddhist Studies are arenas severely imbedded in ancient texts and traditions, nevertheless they continually go forward through up-to-date scholarly contributions.

Understanding how doctoral candidates in these fields engage with both classical sources and modern research is crucial for appreciating the dynamics of knowledge transmission and scholarly communication. This study endeavours to explore the types and ages of sources cited, the diversity of citations across geographic and institutional lines, and the impact of digital and open-access resources on citation practices. Through a systematic bibliometric analysis, this research seeks to realize patterns that may influence the quality and relevance of academic work in Pali and Buddhist studies.

2. Literature Review:

Kumar and Reddy (2012) directed in the study on Citation Analysis of Dissertations Submitted to the Department of Library and Information Science, Sri Venkateswara University, Tirupati. They analyzed for finding possible relationships between i.e. citing, citing articles and bibliographic forms. Thanuskodi (2010) made an early survey the growth and development of research on Ecology in India: A bibliometric study. The author identifies average number of publication per year were 29.47. The bottommost number of publication was 17 in 1990, 1994, 1995. And the highest number of papers was 15 by J. S. Singh and more than 80% of the publications have two or more authors. Kumar P. (2013) analyzed 'A Bibliometric study of 371 articles Published in five volume of Indian animal research from 2007 to 2011'. Their study revealed that single authors contributed to only 15 articles, making up 4.04% of the total, while joint authorship was significantly more common, with 101 articles (27.22%). They also found that 16.17% of the articles were 6-10 pages long, and only two articles exceeded 10 pages. The year 2009 saw the highest number of publications, with 22.91% of the articles. Furthermore, about one-third of the articles (32.34%) had between 6 to 10 references. Saravanan and Dominic (2014) conducted a ten-year bibliometric analysis of the Journal Review of Palaeobotany and Palynology (2003-2012), revealing that collaborative authorship, particularly with two or three authors, was more prevalent than single authorship. The degree of collaboration was 0.87, and the collaborative coefficient was 0.69. Geographically, the UK contributed the most papers (174, 12.03%), followed by the USA (156, 10.79%) and Germany (128. 8.85%). Jena, et al. (2012) directed a bibliometric analysis of all journal articles published in the Annals of Library and Information Studies from 2002 to 2010. In this analysis including journals, books and web resources these three types of resources were covered. Result shows that journals were the most predominantly cited over the other resources and it accounting for 54.4% of all citations. Books followed at 16.5%, while web resources made up 11.6%. This distribution highlights the dominant role of journal articles in academic referencing within the field during that period.

3. Significance of this study:

Importance of this study lies in its potential to shack light on the intellectual background and *Nanotechnology Perceptions* Vol. 20 No.S14 (2024)

studious tendencies within the field of Pali and Buddhist Studies by accurately analysing the citation patterns in Ph.D. theses. This study categorizes the key texts, authors and sources that have significantly influenced research at the university. This analysis can reveal the leading themes, methodologies and intellectual customs that shape the research in the field. The citation patterns enlighten the availability and accessibility of resources. The trustworthiness on the historical literature overwhelming with the latest international contemporary resources.

The Department of Pali and Prakrut at Rashtrasant Tukdoji Maharaj Nagpur University offers a variety of research opportunities and has a widespread collection of theses on Pali and Buddhist studies. This department is established in 1958, it supports the postgraduate courses and Ph.D. candidates in these core area. After visiting for data collection following are the theses found in the library which were analysed for this study. Following is the detailed list which is created by the researcher while studying on the topic. This list is also useful for the users to get the information on specific topic at one place. Below are the theses existing in the Rashtrasant Tukdoji Maharaj Nagpur University Library:

	Table 1: List of theses available in the Rashtrasant Tukadoji Maharaj (RTM) Nagpur U	Jniversity Nagpur University Li	brary
Sr. No.	Title of the Theses	Author/s	Year
1	Yajnavalkya smritiche pramukh teekakar,	Hirlekar, Nandini S.	1982
2	Pali Jatak Kathae : Ek Sanskrutik Adhyayan Shodh - Prabandh	Raut , Bhimraoji Gadiji	2010
3	Budhavansh : Ek Chikitsak Adhyayan	Jambhulkar, Gaya Lalaji	2009
4	Buddha Dhamma ke prachar aur prasar mein Sanchi ka yogdan	Raut, C. W.	2012
5	Buddhaghosh vicharit paddhyachudamani : Ek chikitsak adhyayan	Ambore, Asha	2009
6	Buddhakalin Striya ani Ambedkari Striyanchi Bhavishyakalin Vatchal : ek Dhamma Vishayak Adhyayan	Rodge, Chhaya Chandanji	2019
7	Pali Jatak Kathae : Ek Sanskrutik Adhyayan Shodh - Prabandh	Raut , Bhimraoji Gadiji	2010
8	Pali sahitya ke Vinaypitak ke aadhar pa loktantrik naitik mulyonka anushilan	Nagrare, Bina Shankarrao	2019
9	Pali Sahitya Mazzim Nikay me Bhagwan Buddha ke naitik mulyon ka saiddhantik vishleshan	Walde, Roopa Devdas	2019
10	Pali sahityatil Dhammapad Granthachya Marathi Bhashantrache samikshanatmak adhyayn.	Bodele, Kunali Keshav	2012
11	Pali sahityatil Therigatha : Ambedkarvadi stri Swakathananche preranastrot (Ek tulnatmak adhyayn).	Khobragade, Smita Krushnaji	2013
12	Pali Suttapitak va Vinaypitak sahityatil dharmik ani naitik shikshan: ek abhyas	Wankhede, Vivek	2009
13	Pali tripitak sahityatil loksanskritik tatve	Athawale, Subhash	2022
14	Pali tripitakatil upama : ek adhyayan	Athawale, Subhash	2009
15	Pali vangamayachya aadhare Bavis Pratidnyanche vishleshnatmak adhyayan	Thavre, Indumati Panditrao	2019
16	Pali vangmayat Acharya Buddhadatta yanche yogdan: ek adhyayan	Mendhe, Savita Haridas	2003

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17	Pali vansasahityatil Mahavansa ya granthache eitihasik swaroop va mahattva : ek adhyayan	Bhalerao, Sandeep Ramdas	2018
18	An Analytical Study: Economic Philosophy of Buddhism Based on Pali Sources	Vimalkirti	2013
19	Death and preparation before death according to Theravada Buddhism: a critical study	Phakam, Phramaha Woramath	2012
20	Living With The Peace In Theravada Buddhism	Obhasa	2013
21	A study of Samatha and Vipassana Meditation in Theravada Buddhism	Kovida	2015
22	The Study Of Ten Perfections (Dasaparami) In Theravada Buddhism	Kavisara	2013
23	Pali bhashechya kramik pathyapustakanche mulyamapan	Naik, Jaya Tulashiramji	2016
24	Abhidhamma sahityacha manasshastriya abhyas	Manish Anand	1993
25	Bharateeya samajavar Bouddha dharmacha prabhav	Bodele, Malti M.	1991
26	Inequality of religions and need of conversion with special reference to Buddhism and Dr. Ambedkar	Naike, Chandrashekar Dajibe	1993
27	Kahi mahatvapoorna Bouddha siddhantanche samajik nishkarsha va parinam:Raghunath Janardan Dhadke,	Dhadke, Raghunath Janardan	1980
28	Studies in Jainism and Bouddhism through,	Jain, Bhagchandra	1989
29	Vinaya pitakacha sanskritik abhyas,	Tirpude, Kala	1975
30	Marathwada parisarateel lenyatun pratibimbit Bouddha sanskriti,	Kurhade, B.N.	1997
31	Suttanipatache sanskritik adhyayan	Khandekar, Balchandra N.	1987
32	Bharateeya samajavar Bouddha dharmacha prabhav	Bodele, Malti M.	1991
33	Abhidhamma sahityacha manasshastriya abhyas	Manish Anand	1993
34	Bharateeya samajavar Bouddha dharmacha prabhav	Bodele, Malti M.	1991
35	Inequality of religions and need of conversion with special reference to Buddhism and Dr. Ambedkar	Naike, Chandrashekar Dajibe	1993
36	Kahi mahatvapoorna Bouddha siddhantanche samajik nishkarsha va parinam:Raghunath Janardan Dhadke	Dhadke, Raghunath Janardan	1980
37	Studies in Jainism and Bouddhism	Jain, Bhagchandra	1989
38	Vinaya pitakacha sanskritik abhyas	Tirpude, Kala	1975
39	Marathwada parisarateel lenyatun pratibimbit Bouddha sanskriti	Kurhade, B.N.	1997
40	Suttanipatache sanskritik adhyayan	Khandekar, Balchandra N.	1987
41	Bharateeya samajavar Bouddha dharmacha prabhav	Bodele, Malti M.	1991
42	Suttapitak mein varnit gruhastha- vinay evam sambandhit sutton ka vishleshantmak adhyayan	Kumar, Lokesh	2017
43	Suttapitak sahityamadhye aarya ashtangik marg: ek vishleshnatmak adhyayan	Chauhan, Nilima Manikrao	2008

44	Suttapitak sahityateel vipassana va Bouddha tatvajnanacha sambandha: ek adhyayan	Chourpagar, V.H.	2004			
45	Suttpitkachya aadhare mar sankalpneche vishleshan : Ek adhyayan.	Bagde, Suresh Ganpatrao	2009			
46	Suttpitkatil Buddhakalin samaj jeevan	Ganveer, Prabhakar Tatyaba	1973			
Total N	Total Number of Available Theses in the Nagpur University on Pali and Buddhist Studies : 46					

4. Need and relevance of the study:

Theses on Pali and Buddhist Studies available at Rashtrasant Tukdoji Maharaj Nagpur University are multifaceted and pivotal for several reasons.

- As this research fills a critical gap in understanding the academic and intellectual trends within the field of Pali and Buddhist studies at this particular university.
- This study is essential for measuring the suitability and approachability of academic resources available for researchers at Rashtrasant Tukdoji Maharaj Nagpur University by classifying the most commonly cited sources. This research can guide the university libraries acquisition policies.
- Attentive citation patterns can update curriculum development and academic planning.
- The comprehensions increased from this study can help educators and academic planners to identify predominant themes and gaps in the current literature, enabling them to design more comprehensive and relevant courses.
- It also assists in problem-solving possible areas for future research.

Objectives:

- O To measure the frequency and forms of citations used in the decided theses as per scope of this research.
- O To categorise the most frequently cited authors and the form of literature and types of resources etc.
- O To determine the age distribution of cited sources, including the balance between classical texts and contemporary research.
- o To investigate any disciplinary differences in citation patterns within the broader field of Buddhist Studies, such as between doctrinal, historical and linguistic research.
- o To suggest strategies for librarians and educators to better support doctoral research in these fields.

5. Methodology / Approach:

For this study descriptive research method is need to utilise with applying bibliometric analysis to evaluate citation patterns in Ph.D. theses on Pali and Buddhist Studies at Rashtrasant

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Tukdoji Maharaj Nagpur University. Data Collection: A purposive selection of sampling of Ph.D. theses on Pali and Buddhist Studies submitted from the year of establishment of the Pali and Buddhist Studies Department to 2024. A Comprehensive database is created, in which all details are recorded including each theses details, title, author, year of submission and the total number of citations etc. Citation details including type of source (books, journals, etc.) author publication year, language, and place of publication are recorded.

6. Scope and Limitations of the Study:

The study is limited to Ph.D. theses on Pali and Buddhist Studies at Rashtrasant Tukdoji Maharaj Nagpur University. The analysis covers a specific time period which may limit the generalizability of findings because not a single thesis is available on Shodhganga till today hence the data collection is made by only through physically available theses in the library at Nagpur university.

7. Data analysis and interpretation:

7.1 Year wise submission of Ph.D. Theses: In this study total 46 Ph.D. theses on Pali and Buddhist Studies were analysed which is available in the Nagpur University Library and submitted to Pali and Prakrit Deparatment of RTMNU till the year 2024. In the below Table no. 2 year wise submitted theses to the Nagpur University from the establishment year of the department i.e. 1958 up to till now were shown in a simple way. The maximum number of theses in the Pali and Buddhist studies was submitted in the year 2009 i.e. (5, 10.9%). After that in the year 1991, 1993, 2013, 2019 i.e. (4, 8.7%) and year 2012 i.e. (3, 6.5%) theses were submitted to the department by Ph.D. Scholars and the least number of theses i.e. (1, 2.2%) only one theses per year submitted in the year 1973,1982, 2003, 2004, 2008, 2015, 2016, 2017, 2018 however remaining years including 1975, 1980, 1987, 1989, 1997, 2010 theses submission was done 2, 4.3%. No theses were submitted in the years i.e. 1974, 1976 to 1979, 1981, 1983 to 1986, 1988, 1990, 1992, 1994 to 1996, 1998 to 2002, 2005 to 2007, 2011, 2014, 2020, and 2023 etc.

Table 2: Year wise submission of Ph.D. theses available in RTMN University				
Year wise sub	mission of Theses			
Year	Theses	Percentage		
1973	1	2.2		
1975	2	4.3		
1980	2	4.3		
1982	1	2.2		
1987	2	4.3		
1989	2	4.3		

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1991	4	8.7
1993	4	8.7
1997	2	4.3
2003	1	2.2
2004	1	2.2
2008	1	2.2
2009	5	10.9
2010	2	4.3
2012	3	6.5
2013	4	8.7
2015	1	2.2
2016	1	2.2
2017	1	2.2
2018	1	2.2
2019	4	8.7
2022	1	2.2
Total	46	100

Calculating the percentage using the following formula:

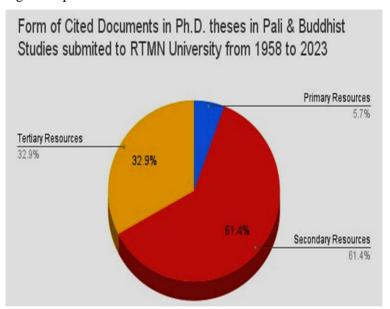
 $\label{eq:percentage} \begin{aligned} &\text{Percentage} = (\text{No. of Ph.D. Theses Submitted}) \\ &\text{x } 100 \end{aligned}$

7.2 Form of Cited Document: what type of references found in the references cited under the Ph.D. theses on Pali and Buddhist Studies need to analyse before categorizing? Researcher has concentrated on the three forms of cited resources in the bibliography or references given in the theses of Pali and Buddhist studies under this analytical study. Including Primary sources of Documents, Secondary Sources of Documents and Tertiary Sources of Documents etc.

Table 3: Form of Cited Documents in the Ph.D. theses in Pali and Buddhist Studies					
Form of Cited Documents Citation Count Cumulative Count Percentage Percentage of Cumulative Count					
Primary Resources	361	361	5.7	5.7	
Secondary Resources	3853	4214	61.4	67.1	
Tertiary Resources	2065	6279	32.9	100	

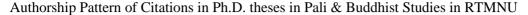
In the above table no 3 clearly make known the number of cited documents belong to different form of resources. In the total 46 available theses on Pali and Buddhist Studies out of 6279

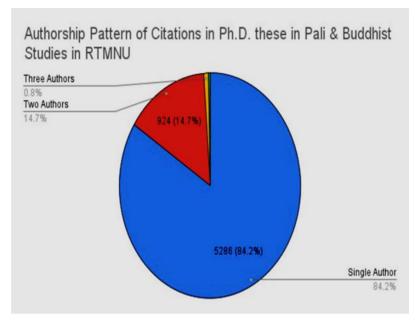
citations there are Secondary resources comprised the highest citations, i.e. 3853, (61.4%) shadowed by Tertiary Resources citations, i.e. 2065, (32.9%) and very little number of primary resources citations found available, i.e. 361, (5.7%) in this study. Means Secondary Resources are more cited or referred than primary and tertiary because of availability and accessibility for the research work and very rare and none of handiness of primary resources. The pie chart displays the things with precision.



7.3 Authorship Pattern in Citations: Below given Table 4 displays the authorship pattern of citations in the Ph.D. theses of Pali and Buddhist studies available in Rashtrasant Tukdoji Maharaj Nagpur University. A total of 6279 citations cited in the Ph.D. these of Pali and Buddhist Studies available in RTMNU were analysed to decide the authorship pattern in the Ph.D. theses. Table 4 replicates the authorship pattern of the cited resources. Out of the total citations, 5286 (84.2%) citations having single authorship pattern which is highest from others. Secondly 924 (14.7%) citations having two authors followed by three authors with 51 (0.8%) citations and very fewer is for more than three authors i.e. 18 (0.3%). Means for this traditional languages and concern research only one author work is found with greatest predominance and more authors for one work found with seldom.

Table 4: Authorship Pattern of Citations in Ph.D. theses in Pali & Buddhist Studies in RTMNU					
Authorship Pattern	Citations	Cumulative Citations	Percentage	Cumulative %	
Single Author	5286	5286	84.2	84.2	
Two Authors	924	6210	14.7	98.9	
Three Authors	51	6261	0.8	99.7	
More than Three Authors	18	6279	0.3	100	



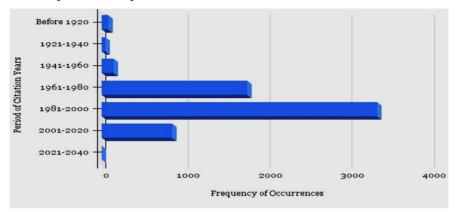


7.4 Chronological Distribution of Citations: Chronological distribution of citations in the Ph.D. theses in a Pali and Buddhist studies indicates whether the research carried out is up to date with the latest research taking place in the particular area or not? The citations analysed in the present study were distributed into groups of 20 years each to know their consecutive distribution.

Period	Frequency of Occurrence	Cumulative Frequency	% of Frequency	% of Cumulative Frequency
Terrou	requeriey or occurrence	Cumulative Frequency	70 Of Frequency	70 Of Cumulative Frequency
Before 1920	82	82	1.3	1.3
1921-1940	50	132	0.8	2.1
1941-1960	152	284	2.4	4.5
1961-1980	1778	2062	28.3	32.8
1981-2000	3353	5415	53.4	86.2
2001-2020	864	6279	13.8	100
2021-2040	0	-	-	-

To describe the chronological distribution of citations in Ph.D. theses for Pali and Buddhist Studies, the data in Table 5 would likely illustrate the temporal trends in the sources referenced by scholars. This could include the frequency of citations from various periods, showing whether researchers have relied more heavily on ancient texts, modern interpretations, or a blend of both over time. The distribution might reveal shifts in academic focus, such as an increasing reliance on contemporary studies or a continued preference for classical texts. It

may also highlight how recent works have contributed to the field, indicating the evolving nature of research in Pali and Buddhist Studies. The table might help identify patterns, such as the dominance of citations from a particular century or a noticeable increase or decrease in references from specific time periods.



The distribution of citations across different periods in Ph.D. theses in Pali and Buddhist studies at Rashtrasant Tukdoji Maharaj Nagpur University reveals significant shifts in scholarly focus over time. Citations from before 1920 are relatively low, with only 82 occurrences, indicating limited reliance on sources from this early period. The period between 1921 and 1940 sees a slight decline, with just 50 citations, reflecting a possible scarcity of academic contributions or interest during these years.

A visible growth happens between 1941 and 1960, where the occurrence upswings to 152 citations, and the most vivid growth shows between 1961 and 2000 with citations rise steeply to 1778 for 1961-1980 and 3353 for 1981-2000. This combined total represents the bulk of the citations, highlighting a period of intense academic activity and possibly the publication of significant works in Pali and Buddhist Studies.

After 2000, there is a notable decline, with 864 citations recorded between 2001 and 2020, which may indicate a tapering off of new research or a shift in focus within the field.

No citations are documented for the future period of 2021 to till date. Which ultimately reflected towards to think about either the lack of forward looking references or completion of available data at the time of analysis. Latter half of the 20^{th} century was particularly exciting period for the research in this field with a slow failure in current years.

7.5 Findings of this Study:

This study offers several insightful findings about citation practices within this specialised academic field. The analysis covered 46 Ph.D. theses submitted to the Pali and Prakrit Department of Rashtrasant Tukdoji Maharaj Nagpur University, spanning from the departments establishment in 1958 up to 2024. The noteworthy findings are as follows:

- 1. The highest number of theses were submitted in the year 2009 i.e. 10.9% of the total.
- 2. 1991, 1993, 2013, and 2019 these are the significant submission years. Each contributing 8.7% of the total.

- 3. Although the study noted breaks in theses submission (no theses found for multiple years i.e. 1970s, 1980s, and after 2014. This may indicate instabilities in research activity within the department over time.
- 4. Secondary form of resources was most frequently cited i.e. 61.4% means (3853 out of 6279 citations) after that tertiary resources was cited i.e. 32.9% of citations while primary resources were the least cited and it was about 5.7%
- 5. Authorship Pattern in Citations including Single-author works dominated the citations, accounting for 84.2% of the total. This reflects the traditional nature of research in Pali and Buddhist studies, where individual scholarship is highly prevalent.

8. Conclusion:

The findings of this study provide a detailed overview of the citation patterns in Ph.D. theses on Pali and Buddhist Studies at RTMNU. The preponderance of Secondary sources of information, the traditional single authorship pattern and concentration of citations from the 20th century resources highlights the research witnesses within this arena. This understanding can help for directing towards future research, library acquisitions, and academic planning within the department, certifying that researchers have access to the most relevant, precise and influential works in their field. The study also give emphasis to importance of assimilating additional current resources into their research to keep jump with ongoing intellectual developments.

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