



## CITATION ANALYSIS OF PH.D THESE IN THE DISCIPLINE OF AGRICULTURAL ECONOMICS AND RURAL SOCIOLOGY SUBMITTED TO BAU LIBRARY IN MYMENSINGH

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### **Abstract**

*This study is a citation analysis of 32 Ph. D theses submitted from 1998 to December 2023 at the Department of Agricultural Economics, Agricultural Finance and Agricultural Business under the faculty of Agricultural Economics and Rural Sociology at BAU, Mymensingh. The author analyzed 3210 citations in the Ph.D theses chronological distribution, year-wise and guide-wise distribution of citations, and source and length-wise distribution of said citation. The study shows that, majority of research scholars prefer to publish research papers in joint authorship and the also prefer journals and books.*

### **Introduction**

There are nine agricultural universities in Bangladesh. All of them are public. There are no private agricultural Universities in Bangladesh at present. Bangladesh Agricultural University is the first, largest, and also called mother organization of agricultural discipline in Bangladesh. The university campus, with an area of 485 hectares, is located in scenic rural surroundings on the western bank of the old Brahmaputra river, and 120 Km north of Dhaka, the capital city of Bangladesh. The campus comprises a series of academic, administrative, and residential buildings and several experimental farms, gardens, and other related facilities. Besides, two national research institutes, namely Bangladesh Institute of Nuclear Agriculture (BINA) and Bangladesh Fisheries Research Institute (BFRC) are housed on this campus.

The university started functioning with only two faculties, at present the number of departments has now increased to 46 under six faculties and three institutes. Initially, Bangladesh Agricultural University started with undergraduate students numbered 444 and teachers

numbered 29. During the long tenure of 63 years the university has widened its spectrum and immersed M.S and Ph.D degrees. Now the enrollment of graduate students are 7136, M.S. are 310, Ph.D Scholars 185, the number of teachers 603, officers 380 and employees are 1392, respectively.

The present study included the faculty of Agricultural Economics and Rural Sociology. Out of six, it is the 4th faculty in BAU. It has established in 1964. Faculty of Agricultural Economics and Rural Sociology consisted & departments. Three departments were offered Ph.D. degree, another department produced M.S. degree.

At present the total of number of theses in order to study and found 3210 citations of the 32 Ph.D thesis from 1998 to December 2022 and analysis the authorship pattern, degree of collaboration etc.

Citation analysis is a technique of bibliometrics. It is an important research tool, understanding the subject, which are analyze the structure and direction of the subject. It measures the utility of documents and relationship between documents in the subject and relationship between authors and their documents.

According to Hirade and Dankhade (2002) citation analysis is one of the popular methods employed in recent days for the identification of core documents in various subject fields or a particular specific community in a geographical proximity. In facts, citation study is one effective and indirect methods to understand the information requirements of users.

### *Review of Literature*

At present there are so many related research articles have been published but not a single one has been published at the same. The researcher have been studied related articles and discussed below.

According to Sengar (2014), the majority of the scientists preferred to publish research papers in joint authorship. Out of 902 papers in joint articles, 753 (83.48%) were joint works, While only 149 (16.51%) were single-author works. The degree of authors collaboration was also calculated to be 0.83, while the mean numbers of single author and joint authored articles were 7.45 and 37.65 respectively.

According to Fasae (2011) worked on Ph.D thesis of Agricultural Economics and Extension, federal University of Technology Akure, Nigeria. This study focuses on determining the materials used in masters, theses in Agricultural Economies during the period 2005 to

2009. Journals were used extensively in their citations (32%). One-third of the cited materials (31%) were 20 years or more. The most cited journal was the Journal of Agricultural Economies with 51 citations. Researchers found most of the documents cited journal of Avian diseases, Veterinary records, Indian Journal of Animal Science with 5573 citations in this study,

### ***Objective of the Study***

The most fundamental objectives are:

- To identify the department and Subject-wise distribution of theses.
- To examine the nature of authorship patterns, citations & in Agro-economic Subject.
- To find out the chronological Scattering of cited literature;
- To identify Thesis-wise distribution of citations
- To Know Source (form)-wise distribution of citation.
- To identify the length wise distribution of articles Scope and limitation of the study

The present study is limited to 3210 Citations appended in Agricultural Economies and Rural Sociology thesis Submitted to Bangladesh Agricultural University from 1998 to 2022 and study is limited to 36 thesis of Bangladesh Agricultural University, Mymensingh.

### ***Methodology***

The present study applies citation analysis technique to the bibliographic references. It was cited in the 21 doctoral dissertation in Agricultural Engineering and Technology which were submitted during 1998 to June 2016. Data about bibliographic entry the dissertations were collected on a work designed for this purpose. Citation analysis was done by studying the numerical distribution of citations across the bibliometric variables which was taken up for this study. Duplicate references of a citation were considered as one.

All the data collected from these sources entered in Excel. The investigator has made an attempt to consolidate all the doctoral degrees that was awarded by the Bangladesh Agri- varsity and classified them according year-wise, subject-wise, guide-wise, count percentage etc. It was given them ranking of PhD thesis for the growth of the research productivity in Bangladesh Agricultural University, Mymensingh, during 1998 to June 2016.

### Style and standard form of citation

There are so many style for citation entry in the modern world. The difference between MLA and APA are discuss below:

<i>Type</i>	<i>MLA format</i>	<i>APA format</i>
Date	The date follows the publisher in the citation and is not in parentheses.	The date follows the author and is in parentheses
Authors name	The author's full name (first and last) is spelled out.	The author's last name is spelled out and the first name is reduced to initials
Capitalization	All major words in the title are capitalized and the title is underlined	Only the first word of the title, the first word of a sub-title, and any proper nouns (like names) are capitalization. Everything else is lowercase. Also, the title is written in italics
Source page	The source page is called a "Works cited"	The source page is called a "References"
In Text Citations	MLA does not uses commas to separate the material or p. pp. before page no	APA does use commas and if a page mentioned uses p and p.p

For Example:

**MLA:** (Burns 101) **APA:** (Burns, 1999. p. 4).

**MLA:** Klaphake, Elizabeth. My life as an English Professor. Bellevue, Nebraska: Bellevue University press. 1999.

**APA:** Klaphake, E. (1999). My life as an English Professor. Bellevue Nebraska: Bellevue University press.

**APA:** The American psychological Association representing psychologists in the United States, including scientists and practitioners. The Association for psychological science or APS, is dedicated to advancing the science of psychology nationally and in the international community. The differences are primary in mission and function.

**APS:** The APS was founded in 1988 to advance scientific psychology. Today, APS represents about 25000 psychologists in more than 80 Countries. The APS mission is the promotion, protection and advancement of scientific psychology. Psychological science leads to a deeper understanding of issues when united with other fields of inquiry. Such as investigation violence or treatments for AIDS. The

Association functions are advocacy for psychological. Science and the dissemination of psychological research.

**Bibliographical references:** American psychological Association (APA), 5th edition rules has been used for bibliographical references given at the end of each chapter. Some of the example are as follows:

**Journal article, one author:** Simon, A. (2000). Perceptual comparisons through the mind's eye. *Memory & Cognition*, 23: 635-647.

**Journal article, two author:** Backer, M.B. & Rozek, S.J. (1995). Welcome to the energy crisis. *Journal of Social Issues*, 32: 230-343.

**Magazine article, one author:** Garner, H.J. (1997, July). Do babies have a universal song? *Psychological today*, 102: 70-77.

**Newspaper article, no author:** Study finds free care used more. (1982, April 13). *Wall Street Journal*, A1, A25.

**Book, two authors:** Strunk, W. & White, E.B. (1979). *The elements of style* (3rd ed.). New York: Macmillan.

**Edited book:** Letheridge, S. & Cannon, C.R. (Eds.) *Bilingual education*. New York: Praeger.

**Entry in a encyclopedia:** Imago (2000). In *world book Encyclopedia* (Vol. 10, p. 79). Chicago: World book Encyclopedia.

**Dissertation:** Olsen, G.W. (1985). *Campus Child care with in the public supported post-secondary educational institutions in the state of Wisconsin (dare Care)* (Doctoral dissertation, University of Winconsin-Madison, 1985). *Dissertation Abstracts International*. 47/03, 783.

**Internet article based on print source:** Sahelian, R. (1999, January). *Achool. Better Nutrition*, 61, 24. Retrieved September 17, 2001, from Academic index.

**Web page with private organization as author:** Midwest, League. (2003). *Pitching, individual records*. Retrieved October 1, 2003, from <http://www.Joesoccer.com/menu.html>

**Ibid:** Cornish, W. (2203). *Intellectual property, patents, copyright, trademarks and allied right*. 5th ed. London: Sweet and Maxwell. Ibid. p. 24, Ibid. p. 38

**Op. cit.:** Cornish, W. (2003). *Intellectual property, copyright, trademarks and allied right*, 5th ed. London: Sweet and Maxwell.

Andrews, M. (2002). Using technology in your presentation. In: white, L. and Davis, E. eds. Enhancing your presentation. London: Sage. pp. 1-104.

Cornish, W. Op. cit. p. 35.

## ***Data Analysis and Discussions***

*Table 1: Source materials: faculty and subject-wise distribution*

<i>Sl. No.</i>	<i>Doctoral thesis, department-wise</i>	<i>No. of thesis submitted</i>	<i>No. of Thesis analyzed</i>	<i>No. of Thesis citation contributed</i>
01.	Agricultural Economics	21	15	1879
02.	Agricultural Finance	04	03	551
03.	Agricultural Business	07	04	780
Total		32	22	3210

Table 1 revealed that there are five departments in Agricultural Economics and Rural Sociology faculty. Out of five, three departments produce 32 Ph.D. degrees. Agricultural Statistics and Agricultural Co-operation & Marketing does not produce any Ph.D degree. The researchers try to discuss 22 Ph.D. theses for citation analysis. From this study, 22 theses out of three departments make 3210 citations of their dissertations.

BAU Library has taken a project to a make "Abstract of ph.D thesis of their own Ph. D degree. It will be run own website few months. According to university roles, a Ph.D scholar is bound to submit a single copy of his/her thesis in the library before get their library clearance. Ph. D thesis can play a significant role to generate advance and new research.

Table 2 represents the details about the Authorship pattern of citation. A total of 725(22.58%) out of 3210 articles have been contributed by the single author, 1087(33.86%) contributors are come from double author, 495 (15.42%) also triple author, 210, 248 and 199 are also represents nearly 6%. four, five and more than five authors. Besides, some authors are corporate authors, contributing 222(06.92%) and anonymous authors are few 27(0.87%) from this study. So, the study showed that team research is favored in Agricultural Economics & Rural Sociology.

*Table 2: Authorship pattern of citation*

<i>Sl. No.</i>	<i>Authorship Pattern</i>	<i>No. of citation</i>	<i>Percentage (%)</i>	<i>Cumulative citation</i>	<i>Cumulative %</i>	<i>Total number of authors</i>
01.	Single Author	725	22.59	-	-	1945
02.	Double Author	1087	33.86	1812	56.45	2996
03.	Triple Author	495	15.42	2307	71.87	930
04.	Four Author	210	06.54	2517	78.41	1245
05.	Five Author	245	07.63	2762	86.04	998
06.	More than Five Authors	199	06.20	2961	92.24	410
07.	Corporate Author	222	06.92	3183	99.16	222
08.	Anonymous Author	27	0.84	3210	-	27
Total		3210	100%			

*Table 3: Chronological distribution of citation*

<i>Year</i>	<i>No. of citation</i>	<i>Percentage (%)</i>	<i>Cumulative citation</i>	<i>Percentage (%)</i>	<i>Remark</i>
Old Period 1912-71	264	8.23	-	-	3
Recent Period 1972 - 00	1278	39.81	1304	48.04	2
Most recent Period 2001 - 23	1668	51.96	3210	-	1
Total	3210	100			

The Table 3 indicates the year-wise distribution of citations, among the 3210 citations appended to the 32 Agri- Economics thesis Submitted to the department of Agricultural Economies, Agricultural Finance and Agricultural Business under the faculty of Agricultural Economics and Rural Sociology. Highest number of citations 1668(51.96%) are belonged to the year 2001-23 and rank 1; Minimum number of citations is from the year 1912-71, i, e, 8.23% is used for their reference purpose in this recent information is much important for Agricultural Economies subjects for teaching and research purpose.

Table 4 depicts 411(12.80%) of citation are received by the six thesis which are submitted in the year 2021. Among the thirty two thesis four thesis asesubmitted in the department of Agricultural Economics. It is noted that three thesis and citation 372(11.59%) and 210(6.54%) received in the year 2014 and 2022. On average 100 citation parthesis are cited by the Ph.D researchers.

*Table 4: Year-wise distribution of thesis their citation.*

<i>Year of Submission</i>	<i>No. of Thesis</i>	<i>Total No. of Citation</i>	<i>% of Citation</i>
1999	01	159	4.95
2003	01	145	4.52
2004	01	190	5.92
2006	02	207	6.45
2008	01	167	5.20
2009	01	135	4.21
2011	02	235	7.32
2012	01	157	4.89
2014	03	372	11.59
2015	02	245	7.63
2017	01	075	2.34
2018	04	312	9.72
2019	01	085	2.65
2020	02	105	3.27
2021	06	411	12.80
2022	03	210	6.54
Total	32	3210	100

*Table 5: Forms of Citation in Faculty of Agri.–Economics*

<i>Sl. No.</i>	<i>Documents cited</i>	<i>No. of Citation</i>	<i>Percentage (%)</i>	<i>Cumulative (%)</i>
01.	Journals	1572	48.97	-
02.	Govt. Pub.	125	3.89	53.86
03.	Proceedings	209	6.51	59.37
04.	Books	1005	31.31	90.68
05.	Bulletins	75	2.34	93.02
06.	Thesis	215	6.70	99.72
07.	Others	09	0.28	100
Total		320		

Table-5 shows the different forms of reading materials used by the researchers. On the basis of the analysis made, it was found that the researchers made use journal, Govt. publications, Proceedings, books, bulletins, thesis and other material as the sorssee of information. But as best, as 48.97% citations were from Journals followed by 31.31%

*Table 6: Length of articles*

<i>Sl. No.</i>	<i>Total No. of pages of the articles</i>	<i>Total No. of Pub.</i>	<i>Percentage (%)</i>
01.	Without page	1069	33.20
02.	1 – 10	1404	43.74
03.	11 – 20	550	17.33
04.	21–30	115	3.58
05.	31 – 40	51	1.59
06.	41 – 50	15	0.46
07.	More than 50	06	0.19
Total		3210	100

from books and the remaining source were responsible for 19.78%, citations only.

Table 6 indicates the length of the articles are cited journals. 1404 (43.74%) were published in between 1–10 pages, 1069 (33.20%) were published 11-20 pages and 550 (17.33%) were published 11-20 pages. From this study, it is also seen most of the researcher's 1069 (33, 20%) articles are not provided with the page numbers. However, it is important for the readers for further reading of the cited articles.

### *Findings*

- The authorship pattern reveals a remarkable difference between the number of single authors and multiple authors. From this study, it is declared that group research is favoured in the Social Science of Agri-Economics subject.
- From this study, it is revealed that out of five departments Agricultural Economics produces 21 theses among thirty-two theses.
- From this citation study, it is shown that on average 100 citations per thesis are cited by the Agri-Economies.
- At present modern citation style (A.P.A.) more than three authors' names are included in any cited articles. If the contributors are more than three than first contributor's name should be entered and then write et. al. Any standard form for citation entry should be followed or make on citation style for uniformity of all departments.

- The most widely used medium of publication is articles in journal (48.97%) and then books (31.31%)
- Minority 1069 (33.20%) articles provided the page numbers which is very important for the readers to refer to the cited articles.

### Conclusion

Citation analysis should be used at institutional and governmental levels for the formulation of citation-based science policy for an all-round development in science and agriculture. Citation analysis is also a practical tool to evaluate how a library is meeting the needs of local users. So, the findings of the study can help concerned library professionals to know the experts in the Agricultural Economics field and it also depicts that which is the standard style for cited citations in their research works.

### REFERENCES

- Bangladesh Agricultural University. (1999): *An Introduction. (Annual Report)*, Mymensingh BAU.
- Bangladesh Agricultural University, (2020): *Orientation 2022*, Mymensingh, Bangladesh.
- Fasae, J.K. (2011): Citation analysis of M. tech theses, Federal University of Technology Akure, Nigeria, *Collection Building*, 30(4), 179-183.
- Sengar, K.P.S (2014): Authorship pattern ` degree of collaboration and research publication trend among Scientists/ Researchers of CSIR/IMTECH, India 1991-2010; Abibliometric study. *Journal of Library Information Science*, 8(1):26-31

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