



## Core Courses of Master's Programme in Library and Information Science of SAARC Countries: a curriculum study

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### Abstract

The present study focuses on the analysis of the curriculum of Library and Information Science (LIS) education at the postgraduate level in SAARC countries. SAARC, comprising Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka, is an international organisation dedicated to regional cooperation in South Asia. The study investigates in detail the master's degree programmes in Library Science education offered by the oldest universities in each SAARC nation. The findings have revealed that only five countries are providing education in the field of LIS at the master's level. The selected universities for this study are Tribhuvan University, University of Delhi, University of Dhaka, University of Kelaniya, and University of Karachi, representing the five countries offering masters in LIS. The analysis of the curriculum has highlighted several common core courses taught across these universities, including library classification, management of library & information science, information services and sources, library cataloguing, research methodology, and thesis preparation. This study provides valuable insights into the current state of LIS education in SAARC countries and serves as a foundation for future research and curriculum development in the field.

**Keywords:** Curriculum, Curriculum analysis, Library Science, LIS education, Master's programme, SAARC, South Asia

### 1. Introduction

Through the curriculum, educators impart education to the learners. Societal justice is based on the implementation of social reforms that have the ability to end cycles of oppression (Clayton & Williams, 2004). One of the main ways teachers work toward social justice goals is by making changes to the education system to make it more open (Banks, 2010). Most students do not have access to different points of view,

which is one of the main reasons why the multicultural curriculum is being changed.

Generally, a curriculum taught in any country is country centric on that country. Curriculum disparities may be very detrimental to all students. Teachers use what they know to fill in gaps in the curriculum. Teachers are "transformative intellectuals" (Giroux, 1984) because they know they can promote and legitimise a wide range of political, economic, and social interests. They



also act as "transformative intellectuals" by embracing and using different ways of teaching in the classroom. Students benefit most from this kind of critical pedagogy because it helps them start to see themselves as important parts of the process of building knowledge (Kumasi & Manlove, 2015). Students also learn that learning in school is a process with values that need to be constantly questioned by teachers, students, and administrators from a wide range of cultural backgrounds.

When addressing ways to improve education, librarians, and university administrators often criticise LIS curricula. Concerns are still being raised about LIS education, how the field defines itself, and what it does professionally (Biswas, 2013; Biswas & Chakrabarti, 2014). When assessing a country's educational system and curriculum, it is important to look at how it

relates to and borrows from the educational systems of other countries (Biswas, 2022). In the same way, it is important to think about the different stages of education (bachelor's, master's, and Ph.D.) and other parts of a growing education process. The present study is focused on the LIS curriculum offered by the SAARC nations.

## 2. About the universities and departments

Master's level education is not offered in all the SAARC nations. Three countries that do not provide master's level education are Bhutan (Ransom, 2011), Maldives (Jayasuriya, Riyaz, & Majid, 2021), and Afghanistan (ACKU, 2011) are the only ones that do not offer LIS education up to master's level. It was observed that five countries are offering master's degree programmes in the SAARC countries. Following are the five countries that provide master's degree programmes in LIS as mentioned in table 1:

**Table 1: Country offering master's degree course**

Country	University	Reference
Bangladesh	University of Dhaka	Riyaz, 2012
India	University of Delhi	Kumar & Sharma, 2010; Biswas, 2021
Nepal	University of Tribhuvan	Nepal National Library, 2006
Sri Lanka	University of Kelaniya	<a href="https://ss.kln.ac.lk/depts/lisc/index.php/about-us/history">https://ss.kln.ac.lk/depts/lisc/index.php/about-us/history</a>
Pakistan	University of Karachi	Malik & Ameen, 2017

### 2.1 Tribhuvan University (Nepal)

In 1959, Nepal founded Tribhuvan University. In 1995, the LIS department was established within the Faculty of Humanities and Social Sciences (Tribhuvan University, 12thDec, 2022). Since its inception, the department has offered one-year post-bachelor course (B.Lib.Sc.). The department upgraded library education to M.Lib.Sc. in

2002. In Nepal, the Master of LIS programme is a major professional advancement for librarians (Tribhuvan University, 13thDec, 2022).

### 2.2 University of Karachi (Pakistan)

Karachi University was established in June 1951 after the Karachi University Act was approved (Karachi University, 14thDec,



2022). When it comes to library studies in Pakistan, Karachi University was the first university in the country that started a master's in LIS education. Some of the big steps forward in the field of LIS education were a postgraduation diploma in LIS (1956), a Master's Degree (1962), a Ph.D. (1967) and M.Phil. (1985) (Karachi University, 15thDec, 2022).

### 2.3 University of Delhi (India)

In 1922, the Central Legislative Assembly established Delhi University as a residential, unitary, teaching university. Its commitment to education, research, and community service is exemplary (Delhi University, 14th Dec, 2022). There are around 7,000 students enrolled in its 16 faculties and 80+ departments. The LIS department at the University of Delhi was established under the Faculty of Arts in 1946. This department was the only one that provided the BLISc, MLISc, MPhil, and Ph.D. degrees (Delhi University, 13thDec, 2022; Biswas, 2021).

### 2.4 University of Kelaniya (Sri Lanka)

The university was founded in 1875 as an educational institution for Buddhist monks. It was one of the two most important places in the country for traditional higher education, and it started the national movement and resurgence (University of Kelaniya, 12th Dec, 2022). The department of LIS was established in 1973 in order to provide graduates with more employment options. Staffing government and non-government libraries and information centres in Sri Lanka and elsewhere is the prime objective of this department. This is the only department in the university system of Sri Lanka that still provides LIS as a BA and BA (Hons) degree programme. Students are admitted to the B.A. (Honours) programme

based on their performance in the first-year qualifying examination. The university offers 'Master of Arts (MA) in LIS' and 'Master of Social Sciences (MSSc) in LIS' both of these courses are one-year programmes. Both programmes make a two-year integrated programme. The department also offers M.Phil. and Ph.D. degree programmes.

### 2.5 University of Dhaka (Bangladesh)

The University of Dhaka was established on July 1, 1921. The University contains 13 Faculties, 83 Departments, 12 Institutes, 20 residential halls, 3 dorms, and about 56 research centres at present. There are now about 37018 students, and there are about 1992 professors (Dhaka University, 15thDec, 2022). Concerning the department, was started in 1959 as the Department of Library Science, which only offered a diploma course. Later, it started providing a degree called "Master of Library Science." In 1987, when a three-year B.A. honours programme was started, the department changed its name to the Department of LIS. The department was renamed "Department of Information Science and Library Management" (ISLM) in 2001. At this time, the Department offers a four-year Honours B.A. and a one-year Master of Arts. the department also offers are a two-year M.A. (Evening), a two-year M. Phil, and a three-year Ph.D. degree (Dhaka University, 15thDec, 2022).

## 3. Objectives

The prime objectives of the present study are as follows:

- to identify the status of LIS education in SAARC countries;
- to analyse the core course curriculum of masters in LIS;
- to check the credit hours in masters in LIS.



#### 4. Methodology

To achieve the objectives of the study, data was collected from the official websites of the selected universities. The official websites were considered reliable sources of information to gather relevant data on the current status of LIS education. The researcher carefully examined the websites of each university to gather comprehensive and up-to-date information on the curriculum,

course structure, faculty profiles, admission requirements, and any additional details related to LIS education. By utilising this data collection method, the study ensured the accuracy and reliability of the information obtained for analysis. Overall, this research methodology focused on a systematic approach of data collection from official university websites, enabling the researcher to gain insights into the current state of LIS education in the selected SAARC countries.

#### 5. Data analysis

**Table 2: Course Offered**

University	Courses Offered	Department Name	Faculty
University of Dhaka	UG, PG, M.Phil., PhD	"Dept. of Information Science and Library Management"	"Faculty of Art"
University of Delhi	UG, PG, M.Phil., PhD	"Department of Library and Information Science"	"Faculty of Art"
Tribhuvan University	UG, PG	"Department of Library and Information Science"	"Faculty of Humanities and Social Science"
University of Karachi	PG, PG Diploma Course, MPhil, PhD	"Department of Library and Information Science"	"Faculty of Art"
University of Kelaniya	Diploma Courses, PG, M.Phil., PhD	"Department of Library and Information Science"	"Faculty of Social Sciences"

The data presented in table 2 provides an overview of the universities that were the first to introduce master's degree programmes in Library and Information Science (LIS) in their respective countries. It is observed that Bhutan, Maldives, and Afghanistan do not offer library education up to the master's degree level. However, all the universities mentioned in the table offer Ph.D. programmes as their highest degree programme, except for Tribhuvan University in Nepal, which offers M. Lib. Sc. (PG

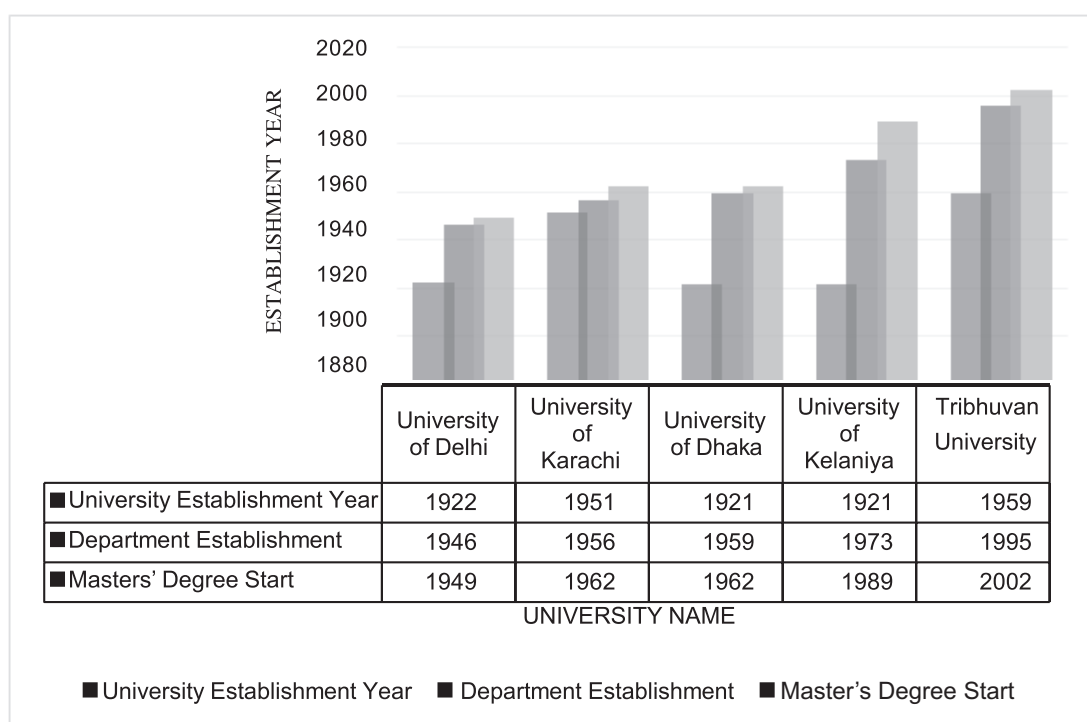
Course) as its highest degree programme. The department responsible for offering the LIS courses in all the universities is called the "Department of Library and Information Science," except for the University of Dhaka in Bangladesh, where it is known as the "Department of Information Science and Library Management." This distinction in department names indicates a potential variation in the curriculum and focus of the programmes.

It is worth noting that only the



University of Karachi and the University of Kelaniya offer postgraduate diploma courses in addition to the master's and Ph.D. programmes. The University of Kelaniya specifically offers a range of diploma courses, including an Advancement Certificate Diploma, Diploma in Public Librarianship, Diploma in School Librarianship,

Postgraduate Diploma, and Postgraduate Diploma in Teacher Librarianship. Moreover, the University of Kelaniya also offers two master's degree programmes, namely Master in Teacher Librarianship and Master in Information Management, further emphasising its comprehensive offerings in library education.



**Figure 1 :Establishment year**

Figure 1 illustrates that the University of Delhi (established in 1922) was the first university in the SAARC region to offer a master's degree in LIS in 1949, 27 years after its inception. In 1962, both the University of Dhaka and the University of Karachi initiated master's degree programmes in LIS. Tribhuvan University, founded in an even later year, began its master's programme in Library Science in 2002. This indicates a growing recognition of the significance of

LIS education in the SAARC region, as another prominent university joined the ranks of institutions offering specialised programmes in the field.

Remarkably, the University of Karachi, established in 1951, demonstrated a swift response to the demand for library education. Only five years after its founding, the university began offering library education, and within a short span of six years, it upgraded its programme to a master's degree



in Library and Information Science. This data interpretation highlights the progressive development of LIS education in the SAARC

region, with universities responding to the demand and evolving over time to meet the educational needs in the field of LIS.

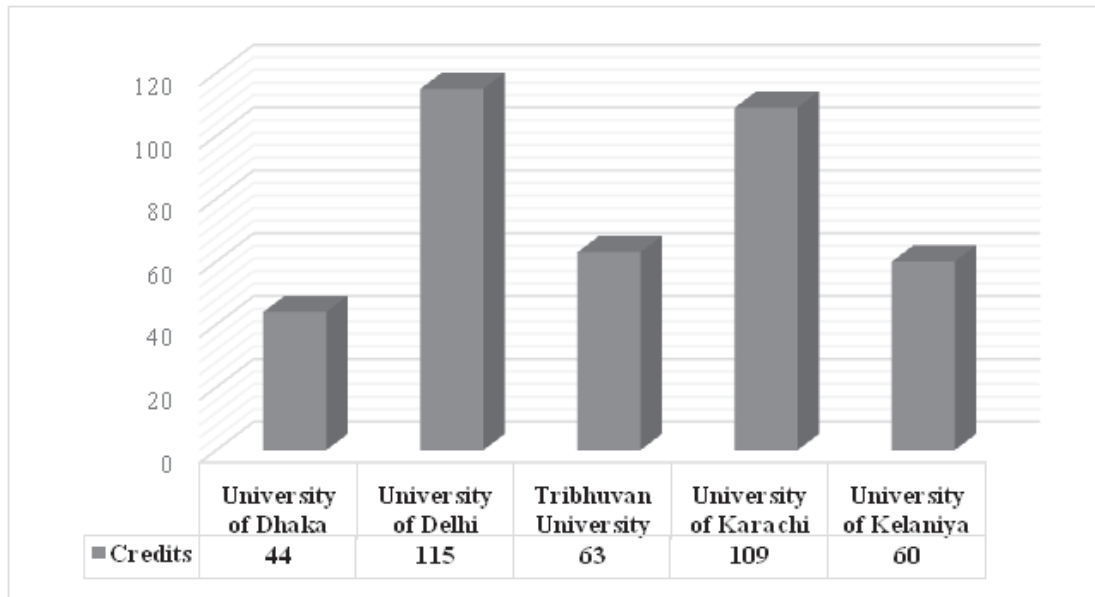
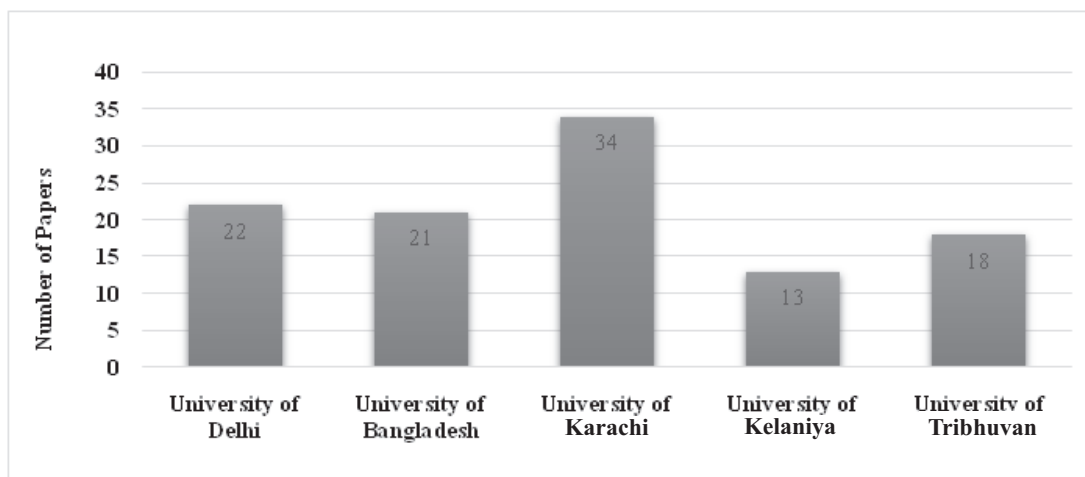


Figure 2: Course credits

The information presented in figure 2 reveals the variation in the number of credit hours required for completing a master's degree in LIS among the selected universities. The University of Delhi offers the highest number of credit hours for its master's programme in LIS, with a total of 115 credits. This indicates that students pursuing a master's degree at the University of Delhi are exposed to an extensive curriculum, covering a broad range of topics and subjects within the field of LIS. The University of Karachi follows closely behind, requiring 109 credits for its master's programme in LIS. This suggests that the University of Karachi also emphasises a comprehensive curriculum, providing students with an in-depth understanding of the discipline.

In contrast, the University of Dhaka requires the fewest credits for its master's degree in LIS, with only 44 credits. This implies that the programme at the University of Dhaka is relatively more focused or condensed, potentially providing a more specialised or streamlined approach to LIS education. The variation in credit hours among these universities highlights the differences in curriculum design and educational objectives. The University of Delhi and the University of Karachi prioritise a more extensive coverage of subjects, while the University of Dhaka focuses on a more concise programme. These differences in credit hours suggest diverse approaches to structuring and delivering LIS education among the selected universities.



**Figure: 3** Number of courses

Figure 3 indicates that the University of Karachi offers 34 subjects in its master's programme in LIS. The University of Delhi and the University of Bangladesh offer 22 and 21 papers, respectively. The University of Kelaniya offers the lowest number of courses (13).

**Table 3: Course analysis**

Name of the Core Courses	University of Delhi	University of Bangladesh	University of Karachi	University of Kelaniya	University of Tribhuvan	Total
Library Classification	1	1	1	1	1	5
Management of library & information centres	1	1	1	1	1	5
Information services & sources	1	1	1	1	1	5
Library Cataloguing	1	1	1	1	1	5
Research Methodology	1	1	1	1	1	5
Thesis	1	1	1	1	1	5
Basics of information technology in LIS	1	1	0	1	1	4
Information Storage and Retrieval System	1	1	1	0	1	4
Library and information society	1	0	1	0	1	3
Internship Programme	1	0	0	0	1	2
Vice- Voce	1	1	0	0	0	2
Information Literacy Applications in LIS	1	1	0	0	0	2
Digital Library Systems	1	1	0	0	0	2
Indexing and abstracting	0	1	1	0	0	2
History of Books and Library and Information Science	0	0	1	0	0	1
Management of Information Institutions	0	1	0	0	0	1
Communication Skill	0	0	1	0	0	1
Technical Writing	0	0	1	0	0	1
Internship	0	0	0	0	1	1
Information Sources and Literature of Islam	0	0	1	0	0	1
<b>Total</b>	<b>13</b>	<b>13</b>	<b>13</b>	<b>7</b>	<b>11</b>	<b>-</b>



The curriculum analysis for the core course (Master in Library Science) is shown in table 3. Among the core courses, it is observed that there are six subjects that are offered by all five universities, namely "Library Classification," "Management of Library & Information centers," "Information Services & Sources," "Library Cataloguing," "Research Methodology," and "Thesis." This indicates a shared emphasis on these subjects across all institutions, highlighting their importance in the LIS curriculum.

Additionally, four out of the five universities (University of Delhi, University of Bangladesh, University of Kelaniya, and University of Tribhuvan) offer the course "Basics of information technology in LIS," recognising the significance of technological aspects in the field. Similarly, "Information Storage and Retrieval System" is offered by four universities, except the University of Kelaniya.

There are variations in course offerings among the universities as well. Subjects such as "Library and Information Society," "Internship Programme," "Vice-Voce," "Information Literacy Applications in LIS," "Digital Library Systems," and "Indexing and Abstracting" are offered by varying numbers of universities, indicating differences in the priorities and curriculum design of each institution.

Furthermore, certain courses are offered by a limited number of universities or, in some cases, only by one university. Examples include "History of Books and Library and Information Science," "Management of Information Institutions," "Communication Skill," "Technical Writing," "Internship," and "Information Sources and Literature of Islam." These courses reflect specific areas of focus or regional considerations within the LIS education provided by the respective

universities.

## 6. Findings and discussion

The following are the major findings of the present study:

- Out of the 8 SAARC countries, 5 offer master's programmes in LIS. Bhutan, the Maldives, and Afghanistan are the only ones that do not offer library education up to the master's level.
- The University of Delhi (established in 1922) was the first university in the SAARC region to offer a master's degree in Library Science in 1949.
- In 2002, Tribhuvan University launched its master's programme in Library Science.
- All of these universities except Tribhuvan University offer Ph.D. programmes as their highest degree programme.
- Tribhuvan University's highest degree programme is the Master of Library Science (Postgraduate Course).
- All of these courses are offered by the "Department of Library and Information Science," except at the University of Dhaka in Bangladesh, where the department is called the "Department of Information Science and Library Management."
- The post-graduate diploma courses are offered by the University of Karachi and the University of Kelaniya.
- The University of Karachi provides a variety of diploma programmes.
- The University of Karachi's master's programme in LIS has the most credit hours and the most courses.





- All universities offer the courses "Library Classification," "Management of Library & Information Science," "Information Services & Sources," "Library Cataloguing," "Research Methodology," and "Thesis."

## 7. Conclusion

The different variations found in conducting the LIS courses suggest in SAARC countries. Although the study further explores that some aspects in the courses are common across all institutions, highlighting their significance in LIS education, such as library classification, management of library and information centers, information services and sources, library cataloguing, research methodology, and thesis. Variation in course offerings among universities reflects diverse priorities and curriculum designs, with specific courses being offered by limited or specific institutions.

## References

- ACKU (2011). Rebuilding the libraries of Afghanistan. [http://afghandata.org:8080/xmlui/bitstream/handle/20.500.12138/20093/azu\\_acku\\_pamphlet\\_z845\\_a3\\_r438\\_2011\\_w.pdf](http://afghandata.org:8080/xmlui/bitstream/handle/20.500.12138/20093/azu_acku_pamphlet_z845_a3_r438_2011_w.pdf)
- Banks, J. A. (2010). Approaches to multicultural curriculum reform. In J. A. Banks & C. A. McGee Banks (Eds.), *Multicultural education: Issues and perspectives* (7th ed., pp. 247-267). Hoboken, NJ: Wiley & Sons.
- Biswas, A. (2013). Accreditation of LIS education in India: formation of parameters in the lights of recommendations made by commissions and committees. *Calcutta University Journal of Information Studies (CUJIS)*, 15, 145 -156. Retrieved from [https://www.researchgate.net/publication/352780607\\_Accreditation\\_of\\_LIS\\_Education\\_in\\_India\\_Formation\\_of\\_Parameters\\_in\\_the\\_light\\_of\\_Recommendations\\_made\\_by\\_Commissions\\_and\\_Committees](https://www.researchgate.net/publication/352780607_Accreditation_of_LIS_Education_in_India_Formation_of_Parameters_in_the_light_of_Recommendations_made_by_Commissions_and_Committees)
- Biswas, A., & Chakrabarti, B. (2014). Place of doctoral research in library and information science: looking back through the recommendations of commissions and committees in India. *Indian Journal of Library and Information Science*, 8 (3), 253 - 264.
- Biswas, A. (2021). History of LIS education in India. Retrieved from [https://www.researchgate.net/publication/351524079\\_Chapter\\_4\\_History\\_of\\_LIS\\_Education\\_in\\_India](https://www.researchgate.net/publication/351524079_Chapter_4_History_of_LIS_Education_in_India)
- Biswas, A. (2022). A comparative analysis of open government data initiatives in SAARC countries. In Biswas, Ashis & Das Biswas, Mayuri (Eds.), *Panorama of open access: progress, practices and prospects* (pp. 158 - 177). New Delhi : Ess Ess Publications. Retrieved from [https://www.researchgate.net/publication/359511471\\_A\\_Comparative\\_Analysis\\_of\\_Open\\_Government\\_Data\\_Initiatives\\_in\\_SAARC\\_Countries](https://www.researchgate.net/publication/359511471_A_Comparative_Analysis_of_Open_Government_Data_Initiatives_in_SAARC_Countries)
- Clayton, M., & Williams, A. (2004). *Social justice*. Malden, MA: Blackwell.
- Delhi University (14th Dec, 2022). Retrieved from <http://dlis.du.ac.in/history.html>
- Delhi University (13th Dec, 2022). Retrieved from <http://www.du.ac.in/index.php?page=about-du-2>
- Dhaka University (15th Dec, 2022). Retrieved from <https://www.du.ac.bd/body/History/LIS>
- Dhaka University (15th Dec, 2022). Retrieved from <https://www.du.ac.bd/body/History/LIS>
- Giroux, H. (1984). Teachers as transformative intellectuals. *Kaleidoscope: Contemporary and Classic Readings in Education*, 2(1), 11-22.
- Jayasuriya, G. D. A., Riyaz, A., & Majid, S. (2021). A review of the library and information science profession in the Maldives: Development, Challenges and opportunities. *IFLA Journal*, 20(10), 1-15.
- Karachi University (14 Dec, 2022). Retrieved



- from <https://www.dlisuok.edu.pk/Histo.htm>.
- Karachi University (14th Dec, 2022). Retrieved from <https://www.dlisuok.edu.pk/UoK.htm>.
- Karachi University (15th Dec, 2022). Retrieved from <https://www.dlisuok.edu.pk/Cours.htm>
- Krishan Kumar & Sharma, J. (2010). Library and Information Science Education in India: A Historical Perspective. *DESIDOC Journal of Library & Information Technology*, 30(5), 3-8. <https://doi.org/10.14429/djlit.30.5.610>
- Kumasi, K. D., & Manlove, N. L. (2015). Finding "Diversity Levers" in the Core Library and Information Science Curriculum: A Social Justice Imperative. *Library Trends*, 64(2), 415-443. <https://doi.org/10.1353/lib.2015.0047>
- Malik, A., & Ameen, K. (2017). Library/information education programs in Pakistan: a comparison with IFLA Guidelines. *Library Review*, 66(4/5), 297-309. <https://doi.org/10.1108/LR-11-2016-0098>.
- Nepal National Library (2006). Nepal National Library Country Report. Retrieved from [https://www.ndl.go.jp/en/cdnlao/meetings/pdf/CR2006\\_Nepal.pdf](https://www.ndl.go.jp/en/cdnlao/meetings/pdf/CR2006_Nepal.pdf).
- Ransom, S. (2011). Bhutan's first library qualification, background and development. *Education for Information*, 28(2/4), 165-173. <https://doi.org/10.3233/EFI-2010-0899>
- Riyaz, A. et al. (2022). *Library and Information Science education and training opportunities in Bangladesh and Maldives: a comparison*. In Progress of Library and Information Services sector of the Maldives: Commemorating the 25th Anniversary of the Maldives Library Association (pp.107-134). Male', Maldives: MLA.
- Tribhuvan University (12th Dec, 2022). Retrieved on <https://tucdlis.edu.np/wp-content/uploads/2021/03/MLISc-curriculum2.pdf>
- Tribhuvan University (13th Dec, 2022). Retrieved from <https://tucdlis.edu.np/about-us/>.
- University of Kelaniya (12th Dec, 2022). Retrieved from <https://fgs.kln.ac.lk/images/ProgramDetails/LISC/MA-Brochure-2018-new.pdf>.



# SVNN-Entropy Weighting Strategy (SVNN-EWS) for Popularity Ranking Factors in Library and Information System: a neutrosophic framework

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## Abstract

Information Retrieval (IR) in Library and Information System (LIS) is not displayed in their search results as users like to see them in deserved order. It is happening because of the incorporation of a few numbers of ranking factors and the model is not user-centred. Consequently, problems with user satisfaction are continuously reported. There are six groups of ranking factors, namely, "Text Statistics, Popularity, Freshness, Locality and Availability, Content Properties, and User Background". The objectives of the study are to present the factors related to the ranking of search results in LIS, and to assign the weights of each factor of popularity group considering the experts' opinion using the entropy method in Single Valued Neutrosophic Numbers (SVNNs). A review of the concerned literature shows that there exists no such study that used the Entropy strategy in Information Retrieval (IR) in LIS and determine weights of the factors for ordering search results considering popularity ranking factors and on the other hand this is a user-centric approach. All these make the proposed study a novelty approach. The considered factors can be used in designing a ranking model for a LIS, designing Web-scale Discovery Tools (DT), or when discussing such a project with an Integrated Library Management System (ILMS) vendor.

**Keywords:** Entropy, Information retrieval, Multi criteria decision making, Neutrosophic set, Online public access catalogue, Ranking factors, Relevance ranking, Single-valued neutrosophic number

## 1. Introduction

The library software helps us to locate all kinds of collections of a traditional library, digital library, e-library, etc. through its Online Public Access Catalogue(OPAC) or web version of that which is known as Web-OPAC. There are so many free and open-

source ILMS as well as a number of commercials too. But the search results of OPAC have some shortcomings related to user-centredness and lack of sophistication in presentation (Lewandowski, 2010). Today's Library and Information Systems consider very few factors as well as poor principles and



strategies to bring their search results in relevancy order which is why they are producing such poor results (Sahoo & Panigrahi, 2022). The best search results in a ranking done by web search engines may be a very much exemplary model for any other information system like a Library and Information System (LIS) to satisfy users and make the search results ordered maintaining relevancy. Search engine technologies have been used to meet the expectations of users in searching and retrieving information (Antelman, Lynema, & Pace, 2006; Connaway & Dickey, 2010; Breeding, 2006; Niu & Hemminger, 2010). Behnert and Lewandowski (2015) categorise all ranking factors (RF) related to or may be considered for LIS into six groups. Under each group, there are a number of factors that can be considered to rank library materials maintaining the relevancy order of search results. LIS use only a few in their system but for better results, we have to systematically test various factors for the best suited in the system. There exist no specific tools to satisfy all users in all aspects. Therefore, rethinking the factors, analysis of the ranking strategy, new algorithms, new framework are always needed. A new model is inevitable to achieve a more or less satisfactory level by the trial-and-error method (Sahoo & Panigrahi, 2022). There are a number of popularity factors suitable for LIS but here we have considered only ten (10) broad sub-groups under group popularity to show the practical exposure of how to incorporate those in the system.

Uncertainty involves in every sphere of real-life problems. To handle uncertainty Zadeh (1965) developed the Fuzzy Set (FS). Smarandache (1998) extended the FS to the Neutrosophic Set (NS) which is a generalisation of different types of FSs such as Intuitionistic FS (IFS), etc. Single-Valued NS (SVNS) (Wang et al., 2010) was grounded

as a subclass of NS which is more popular in Multi-Criteria Decision Making (MCDM) (Khan et al., 2018) problems. However, fuzzy is concerned with capturing and conveying the vagueness of an abstract concept. Therefore, the reason for applying single-value neutrosophic is easy to use in information processing and computational simplicity in linguistic preferences. Further Smarandache (2019) established that NS is the generalisation of Pythagorean FS (Yager, 2013), spherical FS (Kutlu Gündoğdu, & Kahraman, 2019), and q-rung orthopair FS (Yager, 2017). Also, Membership Function (MF), non-MF, and indeterminacy MF are independent in NS and NS is capable of dealing with inconsistency and indeterminacy. On the other hand, ranking factors inherently involve uncertainty, indeterminacy, and inconsistency. So, NS has advantages over other extensions of FSs for the present study.

NS was extended to Single Valued Quadripartitioned NS (SVQNS) (Chatterjee et al., 2016), interval quadripartitioned NS (IQNS) (Pramanik, 2022), Pentapartitioned NS (PNS) (Mallick and Pramanik, 2020), Interval PNS (Pramanik, in press) to capture uncertainty in a convincing way. Details of the development of neutrosophic theories and applications have been documented in the studies (Smarandache & Pramanik 2016, 2018; Pramanik, Mallick & Dasgupta, 2018; Peng 2020; Pramanik 2020, 2022).

As the neutrosophic environment is more realistic, we choose the Single Valued Neutrosophic Number (SVNN) environment for the present investigation. In this environment, we combine the entropy strategy and group decision-making. The entropy strategy is used to assign weights to the factors based on the opinions of the subject experts cum users. We apply the SVNN