Comparative Content Analysis of Library Service Visibility on India's Private University Websites

Ashwini N.[1]; Mallinath Kumbar[2]

Research Scholar, Dept of Studies in Library and Information Science, University of Mysore, Mysuru[1]; Former Professor and Chairman, Dept of Studies in Library and Information Science, University of Mysore, Mysuru, Karnataka, India[2]

ashwininshetty@gmail.com, mallinathkumbar@gmail.com

ABSTRACT

This study examines the visibility of library services on the websites of private universities in the Northern and Southern zones of India through a comparative content analysis. A total of 91 universities were evaluated across three service categories: Traditional/Offline, Digital/Online, and Research Support & Tools. The findings show that Southern universities display significantly higher overall visibility of library services than Northern universities. Category-wise analysis reveals that Digital and Traditional services are more prominently presented, while Research Support services receive the least emphasis. Chi-square results confirm significant differences both between regions and among service categories. The study highlights regional disparities and prioritisation patterns in web-based library communication, emphasizing the need for more comprehensive online representation of research support services.

.

KEYWORDS: Private Universities, Zones, Websites, Library Services, Digital Services, Research Support

1. INTRODUCTION

University websites serve as primary gateways for communicating academic resources and support services to their communities. In this context, **showcasing library information on university websites is essential**, as it ensures that students, faculty, and researchers can easily access details about available services, tools, and resources. For private universities in India- an increasingly competitive and rapidly expanding sector, the online visibility of library services reflects institutional transparency, digital readiness, and commitment to academic support.

However, limited research has explored how effectively private universities across different regions of India present their library services online. Regional differences in digital practices may influence the visibility of traditional services, online resources, and research support tools. This study addresses this gap through a comparative content analysis of private university websites in the Northern and Southern zones of India, examining the extent to which key library service categories are highlighted. The findings shed light on institutional priorities and reveal opportunities for enhancing web-based library communication.

2. LITERATURE REVIEW

Content analysis of library websites has been widely used to assess how academic institutions present their services online. Early work by Still (2001) highlighted the emerging role of structured web content in university libraries, while later studies in India and South Asia revealed uneven development and inconsistent visibility of key services. Research by Harinarayana and Vasantha Raju (2010), Haridasan and Uwesh (2014), Krishnakumar and Nirmala (2014), Gupta and Walia (2022), and Sandeep Kumar and Mir (2017) found significant variation in how university libraries present traditional, digital, and user-support services on their websites. State-level and institutional studies, including Das and Gurey (2021), Rekha and Chandrashekara (2020), and Mohammad, Alam, and Naseem (2024), further reported gaps in usability, e-resource visibility, and research-support features. The COVID-19 context accelerated digital service emphasis, as shown in the analysis of premier technological institutions by Dadhe and Dubey (2020). Beyond India, Ranasinghe and Angammana (2025) identified similar disparities in Sri Lankan university library websites. Collectively, these studies highlight persistent inconsistencies in online library service communication, yet very few have compared regions within India or focused specifically on private universities; leaving a gap that the present North–South comparative study aims to address.

3. OBJECTIVES OF THE STUDY

The objectives of the study are as follows:

- To examine the visibility of library services on the official websites of private universities in the Northern and Southern zones of India.
- To compare the presentation of information on Traditional/Offline, Digital/Online, and Research Support & Tools categories across the two zones.
- To analyse whether significant differences exist between Northern and Southern private universities in showcasing their library services online.
- To determine which category of library services receives greater visibility across all private universities in both zones combined.
- To identify regional patterns and prioritisation trends in web-based library service communication.

4. HYPOTHESES

The following hypotheses have been formulated for the study.

H_{01}: There is no significant difference between Northern and Southern zone private universities in the overall visibility of library services on their websites.

H_{02}: There is no significant difference in the visibility of library service categories (Traditional/Offline, Digital/Online, Research Support & Tools) across the two zones on private university websites.

5. METHODOLOGY OF THE STUDY

This study examines the visibility of library services on the official websites of private universities of the Northern and Southern zones of India. The study adopts a descriptive and comparative research design and uses a structured content analysis approach to evaluate three major categories of services: Traditional/Offline services, Digital/Online

services, and Research Support & Tools. A total of 91 private universities recognised by the University Grants Commission (80 from the North and 11 from the South), all established before 2015, were included to ensure that only mature institutions with sufficiently developed and stable web infrastructures were assessed. The assumption is that older universities are more likely to present richer, more complete information on their library websites. The analysis is limited to publicly accessible webpages and does not include internal systems, other resources, or user-restricted portals.

6. DATA ANALYSIS AND INTERPRETATION

6.1 Library Web Presence

Table 6.1 Library Web Presence (Webpage/Portal)

Variable	North n=80	South n= 11
Library Web Presence	52	10
%	**65**	**91**

Table 6.1 summarises the library web presence among private universities in Northern (n = 80) and Southern (n = 11) India. A total of 52 Northern universities (65%) and 10 Southern universities (91%) provided a distinct library webpage or portal. Although the table reflects only the institutions where information is present, the chi-square test was computed using the full dichotomous dataset (present vs. absent). The chi-square test (χ^2 = 2.98, *df* = 1, *p* = 0.08) shows no statistically significant association between region and library web presence.

Despite the lack of statistical significance, the descriptive pattern suggests that Southern private universities demonstrate comparatively stronger visibility of library services online. This may indicate more consistent adoption of web-based communication practices in the Southern zone.

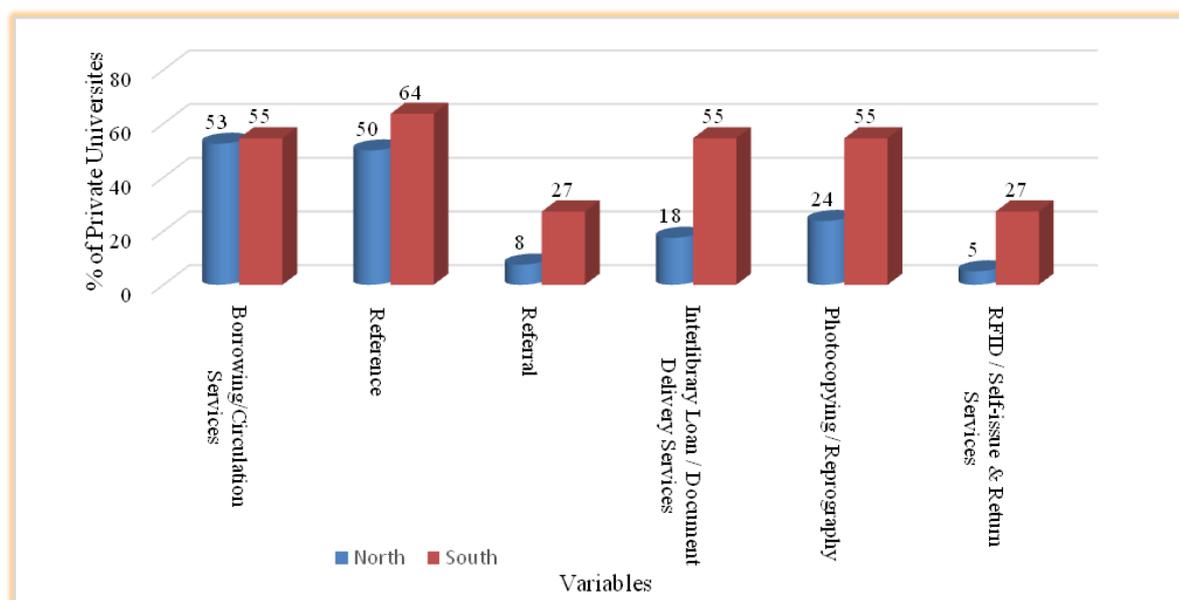### 6.2 Library Services

6.2.1 Traditional/Offline Services

Figure 6.1 Visibility of Traditional/Offline Library Services

Figure 6.1 illustrates the visibility of traditional/offline library services on the websites of private universities in Northern (n = 80) and Southern (n = 11) India. The results show that Southern universities websites more frequently present information about the offline services offered in their libraries. Among Northern universities, borrowing/circulation (53%) and reference services (50%) are the most commonly listed, whereas referral services (8%), interlibrary loan/document delivery (18%), photocopying/reprography (24%), and RFID/self-issue and return services (5%) appear far less frequently. In contrast, Southern universities display substantially higher visibility across almost all service types, particularly reference (64%), photocopying/reprography (55%), interlibrary loan/document delivery (55%), referral (27%), and RFID/self-issue services (27%).

The chi-square test for the overall category of traditional/offline services (χ^2 = 12.45, df = 1, p < 0.001) indicates a statistically significant difference between the two regions. This suggests that Southern private universities are considerably more likely to present information about their offline library services online. The consistent pattern across service categories points to stronger communication practices in the Southern zone, while the lower percentages in the Northern zone reflect comparatively limited visibility of traditional library offerings on university websites.

6.2.2 Online & Digital Services

Table 6.2 Visibility of Online & Digital Services Library Services

Variables	Northern Zone n=80	Southern Zone n= 11
Web OPAC	20 (25)	5 (45)
Links to Other Library OPACs: LOC/IndCat/British Library/World e-Library/Others	2 (3)	0
Remote Access to E-resources	21 (26)	5 (45)
E-Resources link Database/E-journals/E-books	30 (38)	7 (64)
Online Reference Resources: Dictionaries, Encyclopedias, Newspapers, etc.	18 (23)	1 (9)
National E-Learning Platforms links		
e-PG Pathshala	14 (18)	3 (27)
NDLI	19 (24)	5 (45)
NPTEL	20 (25)	4 (36)
SWAYAM	17 (21)	5 (45)
SWAYAM Prabha	9 (11)	3 (27)
Vidyamitra	10 (13)	2 (18)
Total	**180 (20)**	**40 (33)**

Note. Numbers in parentheses represents percentage

Table 6.2 compares the visibility of online and digital library services on the websites of private universities in the Northern (n = 80) and Southern (n = 11) zones of India. The comparison shows that Southern universities generally present these services more prominently across several categories. For example, Web OPAC is visible in 45% of Southern universities compared with 25% in the North, and remote access to e-resources appears in 45% of Southern institutions versus 26% in the North. Similarly, e-resource links; such as e-journals, e-books, and databases are shown by 64% of Southern universities, considerably higher than the 38% observed in the Northern zone. Southern universities also demonstrate higher representation of major national e-learning platforms such as NDLI (45% vs. 24%), SWAYAM (45% vs. 21%), and NPTEL (36% vs. 25%). In contrast, the North shows moderately higher visibility only in a few categories, such as online reference resources (23% vs. 9%). Overall, the descriptive comparison reveals that Southern universities maintain broader and more consistent digital service visibility on their websites.

The chi-square test result (χ^2 = 9.85, *df* = 1, *p* = 0.002) further confirms a statistically significant difference between the two regions in the overall visibility of online and digital library services. This indicates that Southern private universities are significantly more likely to present these digital services online compared with their Northern counterparts. The comparative pattern suggests that Southern universities may be placing greater emphasis on digital transparency, user engagement, and online access to library resources. Meanwhile, Northern universities, although offering a wider spread of individual services, display them less consistently, resulting in lower overall visibility. This regional contrast highlights differing levels of digital communication practices across private universities in India.
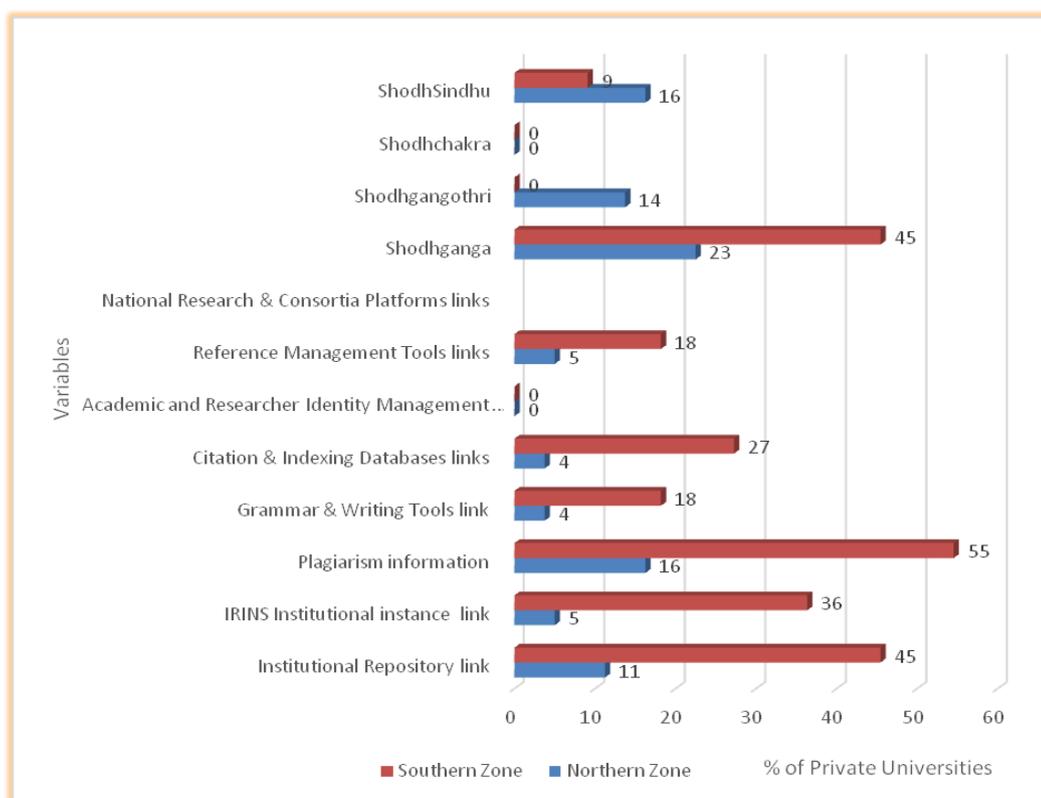

Figure 6.2 Visibility of Research Support Library Services

Figure 6.2 compares the visibility of research support and scholarly communication tools on the websites of private universities in the Northern (n = 80) and Southern (n = 11) zones of India. Overall, Southern universities display higher visibility across a greater number of research support services. Institutional repository links are available in 45% of Southern universities compared with 11% in the North. Similarly, plagiarism information appears more frequently in the South (55%) than in the North (16%). Southern universities also show higher visibility for IRINS institutional instances (36% vs. 5%), citation and indexing database links (27% vs. 4%), reference management tools (18% vs. 5%), and grammar/writing tools (18% vs. 4%). In the area of national research and consortia platforms, the South again shows a stronger presence; for example, Shodhganga is linked by 45% of Southern universities compared with 23% in the North. Although both zones show zero visibility in some categories (such as academic and researcher identity management tools), the overall trend indicates that Southern universities maintain more comprehensive research-supportive web communication.

The chi-square result (χ^2 = 22.90, *df* = 1, *p* < 0.001) demonstrates a statistically significant difference between the two regions in the visibility of research support library services. This indicates that Southern private universities are significantly more likely to present research support tools and scholarly communication resources on their websites than Northern universities. The comparative pattern reflects a stronger emphasis on digital research infrastructure and online academic support in the Southern zone. In contrast, Northern universities show limited and inconsistent visibility across most categories, suggesting comparatively lower prioritization of web-based research support services.

Table 6.3 Overall Visibility of Library Services on Private University Websites

Categories	Variables	North n=80	South n= 11	Total n=91
Library Services - Traditional/Offline	6	125 (26)	31 (47)	156 (29)
Library Services - Digital/Online	11	180 (20)	40 (30)	220 (22)
Library Services - Research Support & Tools	11	78 (9)	28 (23)	106 (11)
Total	**28**	**383 (17)**	**99 (32)**	**482 (19)**

Note. Numbers in parentheses represents percentage

Table 6.3 summarises the overall visibility of three categories of library services; Traditional/Offline, Digital/Online, and Research Support & Tools - across private universities in the Northern (n = 80) and Southern (n = 11) zones. Southern universities display substantially higher overall visibility (32%) than Northern universities (17%). The chi-square test result (χ^2 = 39.96, *df* = 1, *p* < 0.001) indicates a significant difference between the two zones. Therefore, H_{01} (no zone-wise difference) is rejected, confirming that Southern private universities provide library service information more extensively on their websites than those in the North.

When the three categories are examined collectively across both zones, the distribution shows clear variation in priority. Traditional/Offline services (29%) and Digital/Online services (22%) appear more frequently than Research Support & Tools (11%). The chi-square value ($\chi^2 = 84.55$, $df = 2$, $p < 0.001$) indicates a significant difference among the categories. The ASR values support this pattern: Traditional services (ASR = 6.50) and Digital services (ASR = 3.17) are significantly over-represented, while Research Support services (ASR = -8.63) are significantly under-represented. Therefore, H_{02} (no difference among categories across the two zones) is rejected, indicating that universities clearly prioritise Traditional and Digital services over Research Support tools in their website communication.

FINDINGS OF THE STUDY

The study reveals notable differences in how private universities in Northern and Southern India present their library services on their websites. Overall visibility is significantly higher in the Southern zone, where 32% of services are showcased compared with 17% in the North, indicating stronger digital communication practices. Category-wise analysis shows that Digital/Online services receive the highest visibility across both zones, followed by Traditional/Offline services, while Research Support & Tools remain the least represented. Chi-square results confirm significant differences both between the two zones and among the three service categories. ASR values further indicate that Traditional and Digital services are consistently over-represented, whereas Research Support services are significantly under-represented. These patterns highlight varying levels of priority and emphasis placed on specific service categories by the universities.

CONCLUSION

This study demonstrates significant regional variation in how private universities in India present their library services online, with Southern institutions showing markedly higher overall visibility than their Northern counterparts. Across all universities, Traditional and Digital services receive greater emphasis, while Research Support tools remain substantially underrepresented, indicating an imbalance in how institutions communicate essential academic and research-oriented services. These findings underscore the need for private universities, especially in the Northern zone, to enhance the completeness and clarity of their web-based library information. Strengthening the online visibility of research support services is particularly crucial for improving scholarly productivity and aligning institutional practices with contemporary expectations of digital transparency and academic accountability in higher education.

REFERENCES

[1] Dadhe, P. P., & Dubey, M. N. (2020). Library services provided during covid-19 pandemic: Content analysis of websites of premier technological institutions of India. *Library Philosophy and Practice*. https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=8403&context=libphilprac

[2] Das, A., & Gurey. (2021). Web content analysis of state university websites of West Bengal: An evaluative study. *Library Philosophy and Practice (e-Journal)*. https://digitalcommons.unl.edu/libphilprac/6691

[3] Gupta, S., & Walia, P. K. (2022). Content analysis of websites of university libraries in Delhi: A study. *Library Philosophy and Practice (e-Journal)*. https://slp.org.in/IJLINK/volumes/IJLINK-V9I2-1.pdf

[4] Haridasan, D. S., & Uwesh, M. (2014). Content analysis of central university library websites in India: A study. *Journal of Information Management*, *1*(2). https://splpjim.org/wp-content/uploads/2016/04/Article-1.pdf

[5] Harinarayana, N. S., & Vasantha Raju, N. (2010). Web 2.0 features in university library websites. *The Electronic Library*, *28*(1), 69–88. https://doi.org/10.1108/02640471011023388

[6] Krishnakumar, P., & Nirmala, P. J. (2014). Websites of deemed universities in Tamilnadu: An analysis of library content. *Indian Journal of Information Sources and Services*, *4*(1), 38–44. https://www.trp.org.in/issues/websites-of-deemed-universities-in-tamil-nadu-an-analysis-of-library-content

[7] Mohammad, S., Alam, A. M., & Naseem, E. (2024). Content analysis and web design of library website of the university of Lucknow: An evaluative study. *PEARL*, *18*(4), 235–243. http://dx.doi.org/10.5958/0975-6922.2024.00026.3

[8] Ranasinghe, S., & Angammana, A. M. S. (n.d.). Content analysis of academic library websites of Sri Lanka: With special reference to state universities. *International Journal of Research and Innovation in Social Science*, *9*(8), 1241–1249. https://dx.doi.org/10.47772/IJRISS.2025.908000105

[9] Rekha, H. R., & Chandrashekara, M. (2020). Analysis of medical college websites of Kerala state by using content analysis method. *International Journal of Latest Research in Engineering and Technology*, *6*(8), 13–18. http://www.ijlret.com/vol6-issue8.html

[10] Sandeep Kumar, & Mir, M. S. (2017). Content analysis of central universities library: Websites of central region of India: A survey. *International Journal of Scientific & Technology Research*, *6*(6), 283–286. https://www.ijstr.org/final-print/june2017/Content-Analysis-Of-Central-Universities-Library-Websites-Of-Central-Region-Of-India-A-Survey.pdf

[11] Still, J. M. (2001). A content analysis of university library websites in English speaking countries. *Online Information Review*, *25*(3), 160–165. https://eric.ed.gov/?id=EJ633149

_____