

COMPREHENSIVE EVALUATION OF THE STRENGTHS AND WEAKNESSES OF LIBRARIES IN SELECT PRIVATE ENGINEERING COLLEGES IN KURUKSHETRA: A COMPARATIVE STUDY

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Abstract This research paper presents a comparative study of the comprehensive analysis of the strengths and weaknesses of libraries in five prominent private engineering colleges in Kurukshetra, Haryana, India. The study assesses and compares various aspects like collections, infrastructure, library hours, human resources, library networks, resource sharing, technologies, ICT facilities, library automation, and other library and information services, to provide valuable insights into the state of these academic libraries. A total of 300 questionnaires were distributed to library users across the five institutions, with a response rate of 79.33%, resulting in 238 valid responses for analysis. The questionnaires featured yes/no questions, addressing user satisfaction with the key library aspects. The findings reveal noteworthy trends across the libraries. In terms of the latest collections, TERII emerged as the top-performing library, with 88.4% user approval, followed closely by SKIET at 88.2%. The satisfaction with library hours was notably high with DIMT, KITM and SKIET achieving 100% user satisfaction. Impressively, all five institutions achieved 100% satisfaction in the competence and helpfulness of their library staff. While DIMT outshined in terms of library infrastructure satisfaction (87.72%), its ICT facilities received notably lower satisfaction, indicating areas for improvement. GIMT surpassed other 4 institutions in terms of library services satisfaction, with 70.59% approval. This study provides a valuable benchmark for these institutions to leverage their strengths and address weaknesses, ultimately enhancing the overall quality of library services and resources offered to their engineering students and faculty.

Keywords: Library, engineering colleges, Kurukshetra, Haryana, TERII, SKIET, DIMT, KITM, GIMT, strengths, weaknesses, ICT facilities, collections, library infrastructure, library automation, library personnel, library hours, resource sharing, library services, comparative study

1.0 Introduction

Library is the backbone of every academic organization. It is indispensable to make complete identification of every academic institution. It plays a major role in the comprehensive development and progress of students as well as of the institution. The major objective of the academic library is to effectively fulfil the learning and research needs of the users. It is an organized collection of sources of information and similar resources, made accessible to users for reference or borrowing. It provides physical or digital access to material, and may be a physical building or room, or a virtual space, or both. The tasks of a library incorporate accessing, collecting, organizing, storing, protecting, and regulating information, whether it is physical or digital (**Bates & Maack, 2010**).

Libraries can be as small as having a few shelves of books to as large as having several million items. A library's collection can include books, periodicals, magazines, newspapers, manuscripts, films, maps, prints, documents, CDs, cassettes, videotapes, DVDs, ebooks, audio books, databases, and other formats. In addition to providing materials, libraries also provide the services of librarians who are experts at finding and organizing information and at interpreting information needs. Libraries often provide quiet areas for studying, and they also often offer common areas to facilitate group study and collaboration. Modern libraries are increasingly being redefined as places to get unrestricted access to information in many formats and from many sources. They are extending services beyond the physical walls of a building, by providing material accessible by electronic means, and by providing the assistance of librarians in navigating and analyzing very large amounts of information with a variety of digital tools. Survival and growth of a library depends on both its internal and external environments.

The internal environment relates to the library staff, managerial structure, resources, collections and library operations, whereas the external environment relates to the community of library users. Strengths refer to the internal characteristics which are deemed favourable for the organization and provide consistency to it. Weaknesses are the internal characteristics which are disadvantageous and unfavourable for the organization leading to its ineffective performance.

Understanding the strengths and weaknesses is essential for the strategic development and effective functioning of a library. This enables library administrators, policymakers, and stakeholders to identify areas of improvement, and then capitalize on strengths and address weaknesses. A library needs to adopt various tools, techniques and strategies to identify its strengths and weaknesses, so that it can harness its strengths and attend to its weaknesses for competently catering to the needs of the users. The strengths or weaknesses of a library may be associated with its collections, personnel, infrastructure, services, timings, Information and Communication Technology (ICT) facilities, automation, resource sharing, or networking. Private engineering colleges, which cater to the ever-evolving needs of aspiring engineers and technocrats, are no exception to this paradigm. In this context, the present research endeavours to conduct a comprehensive evaluation of the strengths and weaknesses of libraries within select private engineering colleges in Kurukshetra, Haryana.

In the context of libraries, analysis of strengths and weaknesses can help them focus on their current services, resources and programs to identify the areas where they are strong or weak. This in turn would help them develop strategies to improve their operations and services. Identifying strengths such as their collections, infrastructure, staff expertise, and community engagement; and spotting weaknesses such as outdated technology or limited funding, can help libraries to develop effective strategies to improve their services and respond to changing user needs and attract more attendees.

The strengths i.e. the privileged points of a library help it to fulfil and achieve its objective of providing adept services, resources and facilities to the users, and could be identified through its resources, finances, staff skills, competencies, infrastructure, relationship with hierarchy, and overall capabilities of the entire workforce. Some examples of library strengths includes its ample hybrid and robust collection (both print and non print), electronic resources, sufficient funds, automated library services, professionally qualified/trained and competent library staff who are service-oriented, robust state-of-the-art infrastructure, latest technologies and tools to drive its processes and practices, fluid communication, well-organized information, knowledge sharing culture, quiet place to work, membership in a library consortium, cooperation ties with other university libraries, and fast and reliable networking to share resources smoothly. Strengths should be maximized to gain a satisfactory hold in the competitive market. Weaknesses refer to disabilities, shortcomings, faults and limitations of a library that prevent it from achieving its set goals and objectives. The weaknesses of a library include lack of qualified, competent and adequate personnel, lack of digital and electronic resources, lack of digital space, lack of communication with management, inadequate and obsolete technologies and infrastructure. Weaknesses should be addressed, minimized, corrected and or completely eliminated.

Kurukshetra, a city steeped in history and culture, has witnessed a surge in the establishment of private engineering colleges in recent years. The present study analyses the strengths and weaknesses of libraries of following engineering colleges of Kurukshetra:

- Geeta Institute of Management and Technology (GIMT)
- Shri Krishan Institute of Engineering and Technology (SKIET)
- Kurukshetra Institute of Technology and Management (KITM)
- Technology Education and Research Integrated Institutions (TERII)
- Dronyacharya Institute of Management and Technology (DIMIT)

These colleges have become hubs of technical education and innovation. To complement their academic curricula, these institutions have invested in libraries to provide students and faculty with access to a diverse range of resources and services. The need for a robust and well-equipped library system in educational institutions cannot be overstated. It acts as the cornerstone of academic excellence, facilitating research, learning, and skill development. Recognizing the importance of library facilities, the present study aims to assess and analyze various aspects of libraries in the above private engineering colleges of Kurukshetra, with a particular focus on collections, infrastructure, library hours, library personnel, library networks, library automation, resource sharing, technology, ICT facilities, and other library services. These institutions were chosen as the population of the research due to their significance in the realm of technical education and their dedication to providing students with the best possible resources and services.

The present study is an effort to comprehensively analyze the strengths and weaknesses of select private engineering college libraries in Kurukshetra (Haryana) in terms of collections, infrastructure, finance, human resources, library networks, technology, library automation, and other library and information services, and then

draw a comparative interpretation of them.

1.1 Objectives Of The Study

The main objectives of the study are:

(i) **Assessing Library Collections:** To evaluate the extent to which the libraries in select private engineering colleges in Kurukshetra offer up-to-date and relevant collections of resources to support the academic and research needs of students and faculty.

(ii) **Evaluating Infrastructure:** To examine the physical infrastructure of these libraries, including space, seating capacity, and shelving, and determine how well they accommodate the needs of library users.

(iii) **Analyzing Library Hours:** To assess the accessibility and convenience of library services by analyzing the library hours and their alignment with the schedules of students and faculty.

(iv) **Evaluating Library Personnel:** To gauge the competence and helpfulness of library personnel and their impact on the overall user experience.

(v) **Assessing Library Networks and Automation:** To examine the integration of library networks, automation systems, and resource-sharing mechanisms, and their contribution to the efficiency of library operations.

(vi) **Exploring Technology and ICT Facilities:** To investigate the availability and utilization of technology, including internet services and ICT facilities, in enhancing the research and learning experience within these libraries.

(vii) **Analyzing Other Library Services:** To assess additional library services and facilities offered to users, such as reference services, interlibrary loan services, and user training programs.

1.2 Hypotheses Of The Study

(i) **H₁:** The libraries in these private engineering colleges differ in the adequacy and relevance of their collections, with some institutions having more up-to-date and relevant collections than others.

(ii) **H₂:** There are variations in the physical infrastructure among these libraries, with some offering better amenities, space, and seating capacity compared to others.

(iii) **H₃:** Library hours vary across institutions and that some libraries provide more convenient and extended access to users than others.

(iv) **H₄:** Library personnel in all institutions are generally competent and helpful, contributing positively to user satisfaction.

(v) **H₅:** The effectiveness of library networks and automation systems varies, with some institutions being more efficient in resource sharing and library management than others.

(vi) **H₆:** The availability and satisfaction with ICT facilities differ among the institutions, with some libraries offering better technology resources and internet services.

(vii) **H₇:** The range and quality of additional library services vary across the institutions, with some libraries excelling in providing value-added services to users.

2.0 Literature Review

Review of journal articles, books, theses, dissertations, study reports, conference papers, etc play a great role in knowledge development and finding substantial information pertinent to the study being conducted. A thorough review of the previous work relevant to the topic is indispensable to reveal those areas which have already been explored, and those in which studies are yet to be accomplished. It also eliminates the weaknesses if any in the research. By reviewing the extant literature on the particular topic undertaken, the progress of research can be evaluated and research gaps can be found. These gaps can then be scrupulously filled by carrying out research on the very topic in the desired manner and in the correct direction. Some existing studies on the analysis of the strengths and weaknesses of academic libraries are reviewed as follows:

Onwubiko (2020) attempted to gauge the strengths and weaknesses of the library of Alex Ekwueme Federal University, Nigeria. In the course, strength of the library was identified in its highly qualified and computer savvy staff and in its latest book collections of renowned publishers. The weakness of the library was found to be in sub-standard building, inadequate reading space, and non-provision of card catalogue, making it very difficult to access the books on the shelves.

Jan & Hussain (2021) explored nineteen university libraries located in Khyber Pakhtunkhwa province of Pakistan to conduct their comparative study on the basis of assessment of their staff, resources, annual budget, services, automation status, and use of emerging technologies. It was found that most of the libraries under study were partially automated. All the libraries under study provided users with the basic library services.

Majority of the libraries offered Internet service and Current Awareness Service to their users, and had 10 to 50 computer terminals linked to the central hub. As far as library staff is concerned, most of the libraries had less than 10 staff members. Annual budget of most of the libraries ranged from 5 to 10 million. None of the libraries had more than 200 learning resources. Based on the parameters, the central library of The Khyber Pakhtunkhwa Agricultural University, Peshawar was ranked top followed by the central library of the University of Malakand, Chakdara, and central library of University of Peshawar, Peshawar. The basic library services needed improvement in fields of classification, cataloguing, ready reference and alerting services. The library-service quality in the universities of the province can be improved by sufficient financial support from the authorities for the automation of the libraries. Other recommendations are: recruitment of an adequate number of professional staff, appropriate budget and adoption of modern technologies.

Nasreen & Afzal (2020) attempted to discover strengths and weaknesses of Allama Iqbal Open University located in Islamabad (Pakistan). Strengths identified were: competence of the faculty members in supervision of research, proper learning environment, physical facilities for learning at main campus, variety of disciplines and positive interaction. Weaknesses discovered were: slow research process, stress of workload (like attending meetings and seminars etc.), limiting faculty members' time with research students, absence of academic advising council to help students in tool development process, lack of direct communication between students and tutors, non-provision of scholarships for students and faculty members, poor administration, shortage of funds and facilities for staff, improper use of available resources, and strict process of issuing degrees and result cards.

Awojobi, Okoro & Babalola (2020) diagnosed the strengths and weaknesses of the physical infrastructure of three government-owned university libraries in Ogun State, Nigeria. The accessibility by road, geographical location, enough space for individual activities, ventilation, and shelving were discovered as the strengths of the libraries; whereas noise, insufficient seating capacity and inadequate/poor service to the physically challenged were found to be the infrastructural weaknesses. The study recommended a review of the standard requirements for seating capacity by the accrediting bodies, along with serious attention to the needs of the physically challenged in the library buildings.

Tsegba, Ape, & Envi (2019) highlighted the strengths and weaknesses of the library personnel in the Library of Federal University of Lafia by examining their number, professional status, educational qualification and allocation in the departments of the library. Personal observation and interview were used as tools for data collection. Findings revealed that the strength of the library is in the commitment and punctuality of the staff, while the weakness was observed in the inadequate number of staff and their short working hours. Recommendation was made for the recruitment of more professional librarians.

Lamba (2019) conducted a survey to find out the strengths and weaknesses of the Vardhman Mahavir Medical College library (New Delhi). It was found that satiating library products and services, and professional library staff add to the strength of the library; whereas the library's weakness is its negligence towards using any social platform for marketing its products and services.

Veer & Kadam (2014) endeavoured to analyze the strengths and weaknesses of engineering college libraries in Marathwada Region of Maharashtra and concluded that these libraries abound in strengths in comparison to weaknesses. The strengths of the libraries were found to be well qualified librarians with good professional experience, amiable staff, sufficient computer accessories, good internet facility and e-services for users, IT skilled professionals, training programmes for library staff, personal assistance to users, adequate reference sources, good collection, and proper library administration. Weaknesses of the libraries were found to be: not accredited by NBA, inadequate finance, non-availability of online catalogue, lack of satisfactory infrastructural facilities, inadequate technological facilities, lack of uniformity in staffing pattern, no independent library building.

Soheili (2011) intended to identify the strengths and weaknesses in the libraries operated by Razi University, and subsequently devise an effective strategic plan with operational protocols to improve the library programs. Response was collected from the managers and staff of Razi University Libraries through a well-constructed questionnaire. The findings yielded that the internal strengths and weaknesses of these libraries are pertaining to infrastructure, financial condition, human resource, physical facilities, collection, IT setup, and the approaches employed.

Ghosh (2006) conducted a study on Indian Library Association (ILA) to analyze its strengths and weaknesses, so that the entire professional community could be served better. The strengths of ILA were examined as: singularity in national level representation of all Indian libraries, regular publications and annual conference, clearly defined roles recorded in its publicly available constitution, permanent building, vocational commitment, senior level involvement, membership expertise, strong focus on journals and conferences, ample distributed

points for the members to access services, and nomination power with reference to the Library Council. Weaknesses of ILA were found to be: unsatisfactory response to the changing needs of members, lack of local visibility, lack of strategic networking with other groups of professionals, lack of timely updating information in ILA newsletter and low public-rating, lack of a pro-active approach to placements, poor literary contribution to the library profession, and inability to motivate the state governments to enact library legislation.

Lali and Vijayakumar (2002) made an effort to analyze strengths and weaknesses of the Central Library of Kerala University. It was discovered that the strengths of the library outweighed its weaknesses. The strengths were witnessed in collection, technical organization, equipment, services and staff, and building, whereas the weakness was users’ orientation. The study suggested the need of a concerted effort on the part of the staff, top management of the library and authorities of the university and for promotional activities.

Above reviews indicate that though enough studies have been conducted globally to assess the strengths and weaknesses of various aspects of academic libraries, yet much work is needed with regard to the analysis of strengths and weaknesses of library personnel, collections, infrastructure, resource sharing, convenience of library hours, OPAC, ICT facilities, and other library services of Indian engineering colleges, and Kurukshetra region of Haryana is still untouched in this field. To fill this research gap, the present study has been endeavoured.

3.0 Research Methodology

In the present study, data has been collected from library users by administering structured questionnaire to them and generating responses from them. The questionnaire consists of ‘Yes/No’ questions on (i) relevance of collections in the library, (ii) convenience of working hours, (iii) competence and helpfulness of the library personnel, (iv) efficiency in resource sharing, (v) adequacy of library infrastructure and physical resources, (vi) efficiency of ICT infrastructure and facilities, and (vii) effectiveness of library services. In total 300 questionnaires were distributed to library users, out of which 238 duly filled questionnaires were received (response rate is 79.33%) and were found valid for analysis (Table 1).

Table 1

S.N.	Institution	Questionnaires distributed	Questionnaires valid for analysis
1.	DIMT	60	56 (93.3%)
2.	GIMT	60	51 (85%)
3.	KITM	60	45 (75%)
4.	SKIET	60	34 (56.6%)
5.	TERII	60	52 (86.6%)
	TOTAL	300	238 (79.3%)

4.0 Data Analysis

The collected data were analyzed by counting the frequencies of responses and converting them into percentage for the purpose of comparison and interpretation. The analysed data are presented through Tables supported by interpretations. The data is presented and analysed with respect to the aspects studied. Table 2 comprehensively presents the status of the studied libraries on the basis of the studied aspects.

Table 2

ASPECT / INSTITUTIONS	DIMT	GIMT	KITM	SKIET	TERII
Library has latest and relevant collections	43 (76.7%)	40 (78.4%)	37 (82.2%)	30 (88.2%)	46 (88.4%)
Library has convenient working hours	56 (100%)	28 (54.9%)	45 (100%)	34 (100%)	45 (86.5%)
Library personnel are competent, experienced and helpful	56 (100%)	51 (100%)	45 (100%)	34 (100%)	52 (100%)
Library is efficient in resource sharing	56 (100%)	42 (82.35%)	45 (100%)	0 (0%)	48 (92.31%)
Library is clean and has adequate space, furniture, seating capacity, shelving and equipments	48 (87.72%)	39 (76.47%)	27 (60%)	23 (67.65%)	30 (57.69%)

Library has well equipped ICT infrastructure and facilities	44 (78.57%)	19 (37.25%)	27 (60%)	9 (26.47%)	13 (25%)
Library services are satisfactory	36 (64.28%)	36 (70.59%)	29 (64.44%)	22 (64.71%)	24 (46.15%)

Above table shows that with regard to the latest collections in the libraries, TERII secures first rank with the assent of its 88.4% users, SKIET secures second rank with approval of its 88.2% users, KITM secures third rank with the consent of its 82.2% users, GIMT secures fourth rank with yes of its 78.4% users, and DIMT stands fifth with the consent of its 76.7% users. With regard to library hours, it is observed that all the users of DIMT, KITM and SKIET are fully satisfied followed by 86.54% users of TERII and 54.90% of GIMT. Further, in each of the select institutions (DIMT, GIMT, KITM, SKIET and TERII), 100% library users are completely satisfied with the competence and helpful attitude of the library staff. As far as satisfaction with the Internet service is concerned, 100% library users of DIMT and KITM are satisfied, followed by 92.31% users of TERII, 82.35% users of GIMT and 0% users of SKIET. With reference to library infrastructure, 87.72% users of DIMT are satisfied, followed by the satisfaction of 76.47% users of GIMT, 67.65% users of SKIET, 60% users of KITM, and 57.69% users of TERII. Concerning ICT facilities, 78.57% users of DIMT are satisfied, followed by 60% users of KITM, 37.25% users of GIMT, 26.47% users of SKIET, and 25% users of TERII. As far as library services are concerned, 70.59% users of GIMT have approved of them, followed by 64.71% users of SKIET, 64.44% users of KITM, 64.28% users of DIMT, and 46.15% users of TERII.

The above interpretation can be more lucid and comprehensible when depicted in form of a bar graph in the following figure (Figure 1).

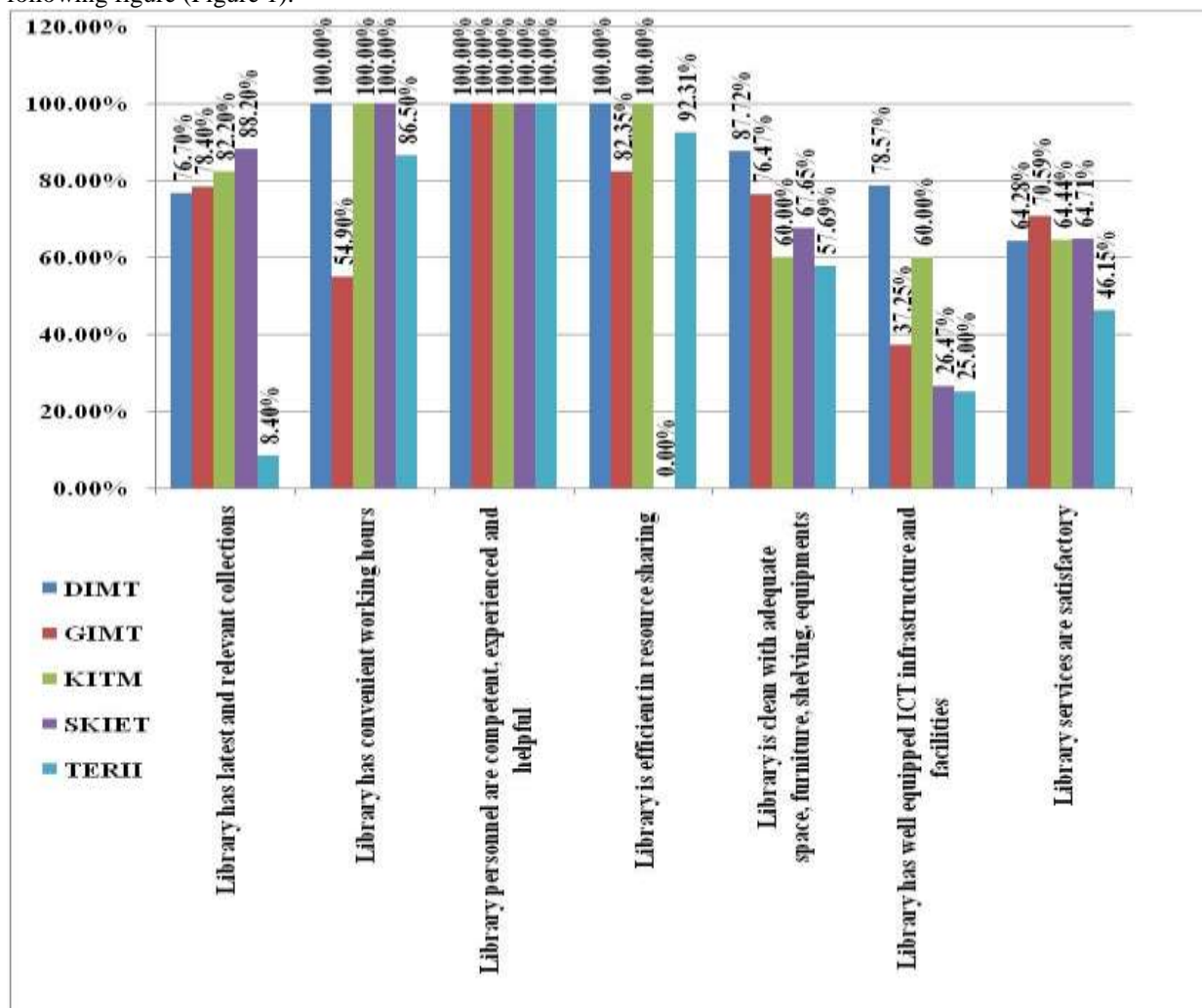


Figure 1

5.0 Results And Discussions

The analysis of the collected data reveals intriguing insights into the libraries of these private engineering colleges. For instance, certain institutions excel in specific areas, such as collections and library hours, while others shine in ICT facilities and infrastructure. Let us examine and compare the strengths and weaknesses of these institutions aspect-wise:

5.1 Collections: One of the key aspects of a library's effectiveness is the quality and relevance of its collections. In our study, library users provided feedback on their satisfaction with the latest collections. The results reveal that TERII and SKIET secured the first and second ranks, respectively, in terms of user satisfaction with the latest collections. This suggests that these libraries have made commendable efforts in acquiring and maintaining up-to-date resources. KITM followed closely in the third position, while GIMT and DIMT secured the fourth and fifth ranks, respectively.

5.2 Library Hours: Library hours play a crucial role in accommodating the diverse study schedules of students and researchers. The findings indicate that DIMT, KITM, and SKIET have successfully met the needs of their users by providing library hours that fully satisfy all users. TERII also received a high level of satisfaction in this regard. However, it is noteworthy that GIMT's library hours appear to be less convenient for a significant portion of its users, as indicated by a lower satisfaction rate.

5.3 Library Personnel: The competence and helpfulness of library personnel significantly influence the overall library experience. Remarkably, all five libraries received full approval from their users regarding the competence and helpful attitude of their library staff. This suggests a high level of professionalism and user-centric approach in all these institutions, contributing positively to the library's reputation.

5.4 Library Infrastructure: Adequate infrastructure is essential for providing a conducive learning environment. The study found variations in user satisfaction with library infrastructure across the institutions. DIMT led in this category with a high satisfaction rate, followed by GIMT, SKIET, KITM and TERII. These findings suggest that while some libraries excel in providing a well-structured and comfortable physical space, others need to improve in this area.

5.5 ICT Facilities: ICT facilities are crucial for accessing digital resources and services. DIMT received the highest satisfaction rating for its ICT facilities, indicating that it offers robust digital resources and services to its users. KITM and GIMT also scored reasonably well in this aspect. However, SKIET and TERII reported lower satisfaction levels, indicating potential areas for improvement in their ICT infrastructure and services.

5.6 Library Services: Library services encompass a wide range of offerings, including reference assistance, and user support. In the study, GIMT emerged as the leader in terms of user satisfaction with library services, followed by SKIET, KITM, DIMT, and TERII. These results highlight GIMT's dedication to providing a holistic library experience to its users.

In summary, this comparative study of these select private engineering college libraries in Kurukshetra, Haryana, demonstrates that each institution has its unique strengths and weak areas requiring improvement. TERII and SKIET excel in terms of the latest collections, while DIMT stands out in library hours and infrastructure. GIMT impresses with its library services, while KITM shows strength in ICT facilities. However, there is room for enhancement in various aspects across all institutions, as highlighted by user feedback.

These findings provide valuable insights for library administrators and decision-makers in these institutions to focus on areas that need improvement and build upon their existing strengths. Ultimately, the goal is to create libraries that effectively support the academic and research needs of their users, contributing to the overall success of their institutions. Further research and targeted interventions can help ensure continuous enhancement of library services and resources in the ever-evolving landscape of higher education.

6.0 Conclusion

In conclusion, this comprehensive evaluation of the strengths and weaknesses of libraries in select private engineering colleges in Kurukshetra has yielded valuable insights into the state of these vital educational resources. Through an extensive survey of library users across five prominent institutions, we have identified areas of excellence and those in need of improvement.

The findings reveal that each institution possesses unique strengths. Libraries at TERII and SKIET excel in the provision of the latest collections, garnering approval from a significant majority of their users. DIMT, KITM, and SKIET stand out in terms of library hours, with all users expressing full satisfaction. Furthermore, all five institutions have earned accolades for the competence and helpfulness of their library personnel, reflecting a

strong commitment to user support.

However, there exist areas that demand attention and enhancement. Library infrastructure, ICT facilities, and certain library services require further investment and development. It is imperative for these institutions to focus on these aspects to provide a holistic and contemporary library experience for their users.

The study underscores the significance of continuous evaluation and adaptation in library services. Libraries are not static entities but dynamic components of educational ecosystems. To maintain their relevance and effectiveness, they must evolve to meet the ever-changing needs of their users.

7.0 Recommendations

Based on the findings of this research, several recommendations emerge for the libraries within the select private engineering colleges in Kurukshetra:

7.1 Enhance Infrastructure: Institutions should consider investments in library infrastructure, creating spaces that are conducive to study and research. Comfortable seating, study nooks, and adequate lighting are essential elements to prioritize.

7.2 Expand ICT Facilities: Libraries should work on expanding their ICT facilities to provide seamless access to digital resources and online databases. High-speed internet, computer access, and support for e-learning platforms are vital.

7.3 Diversify Collections: To maintain their reputation for offering the latest collections, libraries should regularly update their holdings across various subjects, including engineering and technology, ensuring relevance to current academic requirements.

7.4 Improve Library Services: Institutions should focus on enhancing library services to meet the diverse needs of their users. This may include extended hours of operation, interlibrary loans, and specialized research support services.

7.5 Regular User Feedback: Implement a system for regular feedback from library users to monitor satisfaction levels and identify areas for improvement. User feedback should be actively used to drive changes and enhancements.

7.6 Training and Development: Invest in the training and professional development of library personnel to ensure they are well-equipped to assist users effectively and stay updated with evolving technologies.

7.7 Collaborative Resource Sharing: Promote collaboration and resource sharing among libraries to maximize access to resources and materials. Partnerships with other educational institutions or consortia can be explored.

7.8 Technology Integration: Explore opportunities to further integrate technology into library services, such as implementing advanced library management systems and offering virtual reference services.

By implementing these recommendations, the libraries in these private engineering colleges can further elevate their services, creating an environment that supports academic excellence and research endeavours. Continuous improvement in library facilities and services will undoubtedly contribute to the overall success of both students and faculty within these institutions.

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