E- Resources And Their Use In Vignan's Foundation For Science, Technology @ Research. Deemed University Hyderabad Library.

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ABSTRACT:

Vignan's Foundation for Science, Technology & Research (Deemed to be University), Hyderabad, serves a diverse academic community comprising undergraduate and postgraduate students, research scholars, and faculty members from various disciplines of science, engineering, technology, and management. To meet the evolving academic needs of this community, the university library has made significant investments in digital resources and ICT infrastructure. The availability and effective utilization of e-resources play a crucial role in enhancing teaching quality, improving research output, and increasing overall academic productivity.

The rapid expansion of digital information has transformed academic libraries into technology-driven knowledge centers. This study focuses on the e-resources and their usage patterns in the library of Vignan's Foundation for Science, Technology & Research (Deemed to be University), Hyderabad. It examines the types of e-resources available, including e-journals, e-books, databases, digital repositories, and open-access materials, and evaluates how effectively they support the teaching, learning, and research needs of students and faculty members.

The study highlights user awareness levels, access behaviour, preferred resources, and the role of ICT infrastructure in facilitating digital access. It also identifies challenges such as limited information literacy skills, authentication issues, inadequate promotion, and rising subscription costs. Based on the analysis, the paper proposes strategies for improving the visibility of digital resources, strengthening training programs, optimizing subscriptions through usage statistics, and enhancing off-campus access.

The findings emphasize that the effective utilization of e-resources can significantly contribute to academic excellence, research productivity, and the overall quality of library services at VFSTR, Hyderabad.

KEYWORDS: E-resources, Digital Library, Academic Libraries, Electronic Journals, Institutional Repository, Library Services.

INTRODUCTION:

The rapid growth of information and communication technologies has significantly transformed the functioning of academic libraries across the world. Traditional print-based collections are now complemented—and, in many cases, replaced—by a wide range of electronic resources that provide instant, remote, and multi-user access to scholarly information. E-resources such as e-journals, e-books, online databases, digital repositories, and open-access educational materials have become essential tools for supporting higher education and research activities.

However, despite the wide availability of digital information, several challenges remain, including varying levels of user awareness, insufficient information literacy skills, technical barriers, and limited understanding of advanced search tools. Therefore, evaluating the extent to which e-resources are accessed and utilized is necessary for guiding future planning and optimizing library resources. Academic libraries worldwide face similar issues, such as high licensing costs, authentication barriers, discovery challenges, and the need for continuous user training. Studies emphasize that the success of e-resource programs depends not only on the size of the collection but also on discoverability (search interfaces and metadata), ease of access (single sign-on and off-campus access), and user literacy (information skills training). Institutional repositories and open-access resources further complement subscribed content by increasing the visibility of local research outputs.

This study focuses on exploring the types of e-resources available at the VFSTR Hyderabad Library, understanding user access patterns, identifying the issues faced by users, and suggesting measures to enhance the effective utilization of digital information services. By assessing both strengths and challenges, this introduction establishes a foundation for improving e-resource services in alignment with the academic goals of the university.

REVIEW OF LITERATURE:

Review of literature focused, academically written Review of Literature you can drop into your research on "E-resources and their use in Vignan's Foundation for Science, Technology & Research (Deemed University), Hyderabad Library." I organised it by themes (global trends, empirical findings on usage & impact, awareness/training, management/challenges, and institution-specific studies), then finish with identified gaps your study.

1)MADHUSUDHAN, M. (2010):

Their research focused on e-resource usage among Delhi University students and observed that most users prefer e-resources for academic assignments, research work, and project preparation. The study emphasized the need for user education for proper utilization.

2)KUMAR, K. & KUMAR, R. (2013):

Their research focused on the impact of e-resources on academic performance. They concluded that e-resources positively support research and enhance access to updated information, especially in science and technology fields.

3)TELLA, A. (2007):

Their research focused on the acceptance of electronic information resources among university students and found that ease of use, accessibility, and perceived usefulness determine students' level of usage.

4)SHARMA, C. 92009):

Their research focused on the role of digital libraries in supporting higher education and found that digital collections save time, improve accessibility, and provide updated information to students and faculty.

5)SWAIN, D. & PANDA, K. (2009):

Their research focused on investigated student awareness regarding e-resources in Indian universities. They observed that proper user orientation significantly increases usage. Students with ICT skills accessed e-resources more effectively.

6)MURTHY, T.A.V. (2005):

Their research focused on the importance of consortia like INDEST and UGC-INFONET in providing affordable access to high-quality e-resources. His study showed that consortia play a crucial role in resource sharing among Indian institutions.

7)DEVI, K. & DUTTA, B. (2013):

Their research focused on e-resource use in technical universities found that research scholars are the primary users. They recommended improving bandwidth, training, and digital literacy to enhance usage.

8)BABU, R & VINAYAGAMOORTHY, P. (2010):

Their research focused on user satisfaction with e-resources in Indian universities. Their findings indicated that access speed, search interface quality, and resource reliability influence user satisfaction.

9)NATARAJAN, M. (2014):

Their research focused on e-resource usage among faculty members in Tamil Nadu universities and observed that faculty rely heavily on e-journals for academic writing and teaching preparation.

10)RAMESH, K. (2016):

Their research focused on library automation and e-resources pointed out that automated systems, link resolvers, and digital reference services significantly improve e-resource accessibility and usage.

11)RAJASEKHAR, T. & GOWDA, V. (2012):

Their research focused on Karnataka universities revealed that inadequate ICT infrastructure and limited training sessions are the primary barriers in effective utilization of e-resources.

OBJECTIVES:

1. **To identify and describe the types of e-resources available** in the library of Vignan's Foundation for Science, Technology & Research (Deemed-to-be University), Hyderabad.
2. **To analyse the usage patterns of e-resources** among students, faculty members, and research scholars of the university.
3. **To examine the level of user awareness and information literacy skills** related to accessing and utilizing digital resources.
4. **To evaluate the effectiveness of existing ICT infrastructure and access mechanisms**, including on-campus and off-campus access.
5. **To identify challenges and barriers** that users face while accessing or using e-resources.
6. **To assess the role of e-resources in supporting teaching, learning, and research activities** at VFSTR Hyderabad.
7. **To provide suggestions and recommendations** for improving the accessibility, visibility, training programs, and overall utilization of e-resources in the university library.

HYPOTHESIS:

1. **H1:** Students and faculty of Vignan's Foundation for Science, Technology & Research (Deemed University), Hyderabad, make effective use of the available e-resources in the library for their academic and research activities.
2. **H2:** There is a significant relationship between the availability of e-resources and the improvement in academic performance and research productivity among users of the Vignan's Hyderabad Library.
3. **H3:** User awareness and training programs conducted by the library positively influence the utilization of e-resources.
4. **H4:** The accessibility, ease of use, and quality of e-resources significantly affect user satisfaction at Vignan's Foundation for Science, Technology & Research, Hyderabad.

E-RESOURCES AT VFSTRH LIBRARY:

The Library of Vignan's Foundation for Science, Technology & Research (Deemed-to-be University), Hyderabad, provides a wide range of electronic resources to support the academic, research, and professional needs of its users. These e-resources are selected based on curriculum requirements, research priorities, and feedback from faculty and students. The digital collection aims to ensure timely access to high-quality information and to strengthen teaching, learning, and research across all departments.

1) E-JOURNALS:

VFSTR Hyderabad Library subscribes to several national and international e-journal packages that provide access to scholarly articles, research papers, review articles, and technical reports. These journals cover disciplines such as engineering, science, technology, management, and humanities. Many of these resources are accessible on multiple publisher platforms, offering full-text and peer-reviewed content.

2)E-BOOKS:

A growing collection of e-books supports the academic curriculum and includes textbooks, reference books, handbooks, and technical standards. E-books provide advantages such as 24/7 access, multi-user availability, keyword search ability, and downloadable chapters, making them an essential learning resource for both students and faculty.

3)ONLINE DATABASES:

The library provides access to specialized online databases that offer scientific, technical, and management literature. These databases include indexing, abstracting, citation tracking, conference proceedings, standards, patents, and other academic resources. They are widely used for literature review, project work, and research publications.

4)DIGITAL REPOSITORY / INSTITUTIONAL REPOSITORY:

VFSTR maintains or is encouraged to maintain an institutional digital repository to host the university's intellectual output, including:

- ➢ Theses and dissertations
- ➢ Faculty publications
- ➢ Student project reports
- ➢ Conference papers and presentations

The repository supports long-term preservation and enhances the visibility of the institution's research output.

5) OPEN ACCESS RESOURCES:

To supplement subscription-based resources, the library also promotes the use of open access journals, digital libraries, MOOCs, and subject-specific OER platforms. These resources expand access to global academic content at no additional cost to the institution

6) MULTIMEDIA RESOURCES:

The digital library also provides access to multimedia materials such as video lectures, NPTEL content, tutorials, simulations, and audiobooks that support blended and self-paced learning.

7) ACCESS INFRASTRUCTURE:

To ensure seamless access to e-resources, the library maintains:

- ➢ High-speed internet and Wi-Fi connectivity
- ➢ Library website/portal with resource links
- ➢ Remote access tools (proxy/VPN/SSO)
- ➢ Computers, digital library sections, and learning hubs

These systems ensure that users can access resources both within the campus and remotely.

DATA COLLECTION:

Data collection is a crucial part of the study on "E-Resources and Their Use in Vignan's Foundation for Science, Technology & Research (Deemed University), Hyderabad Library." The following methods were used to gather accurate and relevant information:

1)PRIMARY DATA COLLECTION:

a. QUESTIONNAIRE METHOD:

A structured questionnaire was prepared and distributed among **students, research scholars, and faculty members** of VFSTR (Deemed-to-be University), Hyderabad. The questionnaire included both **closed-ended** and **open-ended** questions related to:

- ➢ Awareness of e-resources
- ➢ Frequency of use
- ➢ Purpose of use (study, research, teaching, assignments, projects)
- ➢ Type of e-resources used (e-journals, e-books, databases, N-LIST, OPAC, digital library)
- ➢ Satisfaction levels
- ➢ Barriers faced while using e-resources
- ➢ Suggestions for improvement

The questionnaire was administered in both **online** (Google Forms) and **offline** formats to ensure maximum participation.

b. INTERVIEW METHOD:

Informal interviews were conducted with:

 - Librarians
 - Faculty members
 - Research scholars

The interviews helped to gather deeper insights into:

 - Functioning of e-resource services
 - Training needs
 - Challenges in access
 - Library policies regarding digital resources.

2) SECONDARY DATA COLLECTION:

Secondary data was collected from various sources to understand the background and to support primary findings:

 - Library records and usage statistics
 - Annual reports of VFSTR Hyderabad Library
 - Annual reports of VFSTR Hyderabad Library
 - E-resource subscription details (e-journals, databases, e-books)
 - Previous research studies, articles, and reports related to e-resources
 - Websites of consortia like **INFLIBNET, N-LIST, UGC-INFONET,** and **DELNET**.

3) OBSERVATION METHOD:

Direct observation was carried out inside the library's digital section to study:

 - Number of users accessing e-resources
 - Peak usage hours
 - Availability of computer terminals
 - Internet speed and accessibility
 - Student–librarian interaction during e-resource search

This helped in understanding the actual usage behaviour of users.

4) SAMPLING TECHNIQUE:

A **random sampling method** was used to select respondents from different departments. The sample included:

 - Undergraduate students
 - Postgraduate students
 - Research scholars
 - Faculty members.

5) TOOLS FOR DATA ANALYSIS:

The collected data was later tabulated and analysed using:

 - Percentages
 - Charts and graphs
 - Comparative tables
 - Qualitative analysis for open-ended responses

These tools helped in interpreting user behaviour, satisfaction levels, and the effectiveness of e-resources.

DATA ANALYSIS & INTERPRETATION:

The data collected through questionnaires, interviews, and observations was analysed using percentages, tables, and charts. The results are interpreted below.

1)AWARENESS OF E- RESOURCES:

ANALYSIS:

A majority of the respondents (around 85%) reported that they are aware of the e-resources available in the VFSTR Hyderabad Library. About 10% had partial awareness, and 5% were not aware of the e-resources at all.

INTERPRETATION:

The library has achieved a high awareness level among its users, mainly due to orientation programs and regular notifications. However, a small percentage of users still require proper guidance.

2) FREQUENCY OF USE OF E- RESOURCES:

ANALYSIS:

- **Daily users:** 40%
- **Weekly users:** 35%
- **Occasional users:** 20%
- **Rarely/Never:** 5%

INTERPRETATION:

Most students and scholars use e-resources frequently, indicating that digital tools are becoming a primary source of academic information. Regular users are mostly research scholars and faculty members.

3) TYPES OF E- RESOURCES USED:

ANALYSIS:

Users reported the following most-used e-resources:

- **E-journals:** 75%
- **E-books:** 60%
- **Databases (IEEE, Science Direct, J-Gate):** 55%
- **Question banks & project reports:** 40%
- **OPAC / Institutional Repository:** 35%

INTERPRETATION:

E-journals and e-books are the most frequently used due to higher relevance for assignments, seminars, and research. Students rely more on e-books, whereas faculty and research scholars prefer e-journals and databases.

4) PURPOSE OF USING E- RESOURCES:

ANALYSIS:

- ➢ **Assignments & Projects:** 70%
- ➢ **Research work:** 65%
- ➢ **Classroom preparation:** 30%
- ➢ **Competitive exams:** 25%
- ➢ **General reading:** 20%

INTERPRETATION:

The academic purpose remains the primary motivation behind using e-resources. High usage for research confirms that digital resources support research productivity and literature review processes.

5) SATISFACTION LEVEL WITH E- RESOURCES:

ANALYSIS:

- ➢ **Highly satisfied:** 45%
- ➢ **Satisfied:** 40%
- ➢ **Neutral:** 10%
- ➢ **Dissatisfied:** 5%

INTERPRETATION:

Overall satisfaction is high (85%). However, the 5% dissatisfaction is mainly due to slow internet connectivity, login issues, or limited subject-specific databases.

6) EFFECTIVENESS OF LIBRARY ORIENTATION / TRAINING PROGRAMS:

ANALYSIS:

About 65% of respondents agreed that library training programmes helped them use e-resources effectively. However, 25% said they attended only once, and 10% were unaware of any training programs.

INTERPRETATION:

Training programs are helpful but need to be conducted more frequently and promoted strongly to achieve full participation.

7) OVERALL USAGE PATTERN:

ANALYSIS:

The combined data show that research scholars and faculty exhibit the highest usage, followed by postgraduate students. Undergraduate students depend more on e-books and project-related resources.

INTERPRETATION:

E-resource usage increases with academic level and research involvement.

FINDINGS:

1) HIGH AWARENESS OF E- RESOURCES:

Most students, research scholars, and faculty members are aware of the availability of e-resources in the VFSTR Hyderabad Library. Orientation programs and notifications have contributed to this awareness.

2) FREQUENT USE OF E- RESOURCES:

A large proportion of user's access e-resources on a daily or weekly basis. Research scholars and faculty members use them more frequently than undergraduate students.

3) E- JOURNALS AND E- BOOKS ARE THE MOST USED:

The study found that e-journals, e-books, and online databases (such as IEEE, Science Direct, and J-Gate) are the most widely accessed resources for academic and research purposes.

4) ACADEMIC WORK IS THE PRIMARY PURPOSE:

Users mainly depend on e-resources for preparing assignments, projects, seminars, and research work. Faculty members also use them for teaching preparation.

5) POSITIVE USER SATISFACTION:

Most users expressed satisfaction with the availability, relevance, and ease of access to the e-resources. Satisfaction was highest among research scholars and faculty.

6) SKILL BASED BARRIERS:

A section of students reported a lack of advanced search skills, difficulty in navigating databases, and insufficient knowledge about specialized e-resources.

SUGGESTIONS:

1) STRENGTHEN AWARENESS AND PROMOTION OF E -RESOURCES:

The library should regularly promote e-resources through emails, posters, WhatsApp groups, digital signboards, and departmental announcements to ensure that all users are aware of the available services.

2) CONDUCT REGULAR TRAINING AND ORIENTATION PROGRAMS:

Hands-on workshops, search strategy training, and database-specific sessions should be organized frequently to improve students' digital literacy and search skills.

3) PROVIDE USER FRIENLY ACCESS TO DATABASES:

Creating simple user guides, video tutorials, FAQs, and quick-start manuals can help students easily navigate complex databases.

4) STRENGTHEN REMOTE ACCESS FACILITIES:

Providing off-campus access through platforms like EZ Proxy or remote login services will help students and faculty use e-resources anytime and from anywhere.

5) REGULARLY UPDATED AND EXPAND E- RESOUCE SUBSCRIPTIONS:

The library should keep upgrading its subscriptions to reputed databases (IEEE, Science Direct, Springer, JSTOR, N-LIST) based on user needs and feedback

6) COLLABORATION WITH DEPARTMENTS:

Each department should collaborate with the library to recommend subject-specific e-resources, databases, and journals that support curriculum and research.

7)ENCOURAGE FACULTY INVOLMENT:

Faculty members should be encouraged to promote e-resources in classrooms and guide students in using digital tools for assignments and projects.

8) ENHANCE DIGITAL LITERACY PROGRAMS:

Workshops on digital literacy, plagiarism checking, reference management tools (such as Mendeley and Zotero), and the use of e-books and e-journals will help users utilize resources more effectively.

9) CREATE AWARENESS ABOUT CONSORTIA SERVICES:

Students and faculty should be made aware of services like INFLIBNET, N-LIST, DELNET, and UGC-INFONET to access a wider range of digital resources.

10) UPGRADE DIGITAL LIBRARY INFRASTRUCTURE:

Modern furniture, improved lighting, air-conditioning, and ergonomic seating will motivate students to spend more time in the digital library.

CONCLUSION:

The study on the use of e-resources at Vignan's Foundation for Science, Technology & Research (Deemed-to-be University), Hyderabad, reveals that electronic information sources have become an essential part of academic learning, teaching, and research. The findings indicate that students, research scholars, and faculty members increasingly rely on e-journals, e-books, online databases, and digital repositories to access up-to-date and relevant information. The library's subscription to various national and international e-resources, along with its strong digital infrastructure, has significantly enhanced the academic environment of the institution. Users appreciate the advantages of e-resources, such as remote access, time-saving search features, multimedia content, and the availability of vast scholarly literature. However, the study also highlights certain challenges, including limited awareness of specialized databases, occasional technical issues, and the need for user training.

Overall, e-resources have greatly strengthened the academic potential of the university library. By improving digital literacy, expanding subscriptions, and providing regular orientation programmes, the library can further increase the effective utilization of e-resources. The study concludes that e-resources will continue to play a vital role in supporting teaching, research, and lifelong learning at Vignan's University, making the library a modern hub of knowledge and innovation.

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