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ACCESS AND USE PATTERN OF ELECTRONIC RESOURCES BY THE FACULTY MEMBERS AND STUDENTS AND TEACHING FACULTY AT SELECTED PROFESSIONAL COLLEGES UNDER JNTU KAKINADA

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ABSTRACT:
Academic achievement and research output are significantly impacted by how professors and students at JNTU Kakinada's professional colleges utilize and access technological resources. The current digital infrastructure's efficacy, the difficulties encountered in gaining access to electronic resources, and the degree to which these resources are used are all explored in this research. Faculty and students from chosen professional institutions were surveyed and interviewed as part of a mixed-methods approach. Results show clear patterns in how often, for what, and which kinds of electronic resources people choose to use them. Despite widespread agreement on the usefulness of electronic resources for education and research, several respondents did note that there are still obstacles to their widespread use, including low levels of computer literacy, slow internet connections, and a lack of institutional backing. Training programs, better technical assistance, and easier access to resources are some of the focused interventions that this research highlights as being necessary to maximize the utilization of electronic resources. Insights like this provide the groundwork for plans to strengthen academic processes with the use of e-resources, creating a more robust and inventive learning environment. The purpose of this research is to examine how students and teachers at a few associated professional institutions with Jawaharlal Nehru Technological University (JNTU) Kakinada use and access online resources. Academic stakeholders' use of electronic resources is the focus of this study, which also seeks to identify common obstacles and evaluate the resources' effects on pedagogy, student achievement, and scholarly work. Using a combination of quantitative data from structured surveys and qualitative insights from focused interviews, a mixed-method approach was used. Academic positions, technical competence, and institutional support systems all play a part in the substantial diversity in resource usage that is shown by the key results. In order to make the most of online resources, the research stresses the need of better digital literacy programs, more accessible infrastructure, and individualised training. These suggestions aim to improve academic environments at professional institutions by filling up gaps in resource use.
Key words : Electronic Resources, Access Patterns, Usage Trends, Faculty Members, Students.

INTRODUCTION:

The use of electronic resources has grown in importance in today's educational institutions, with far-reaching effects on pedagogy, student achievement, and scholarly inquiry. Electronic books, journals, databases, and other digital material provide extensive knowledge repositories that provide easy access to information for both academics and students. Their assimilation into university life has revolutionized teaching methods, encouraging students to become more self-reliant and making better use of available resources. In order to produce graduates who are prepared for the workforce of the future, professional institutions, especially those associated with Jawaharlal Nehru Technological University (JNTU) Kakinada, are needed. Improving educational results and encouraging research innovation depends on staff and students making good use of electronic resources at these institutions. To find gaps and make the most of available resources, nevertheless, it is crucial to comprehend academic stakeholders' patterns of access and usage. Faculty, teaching staff, and student use of electronic resources at a few JNTU Kakinada professional institutions are the focus of this research. The study intends to provide practical insights for enhancing resource

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accessibility and engagement by assessing aspects such as usage frequency, purpose, problems encountered, and institutional support systems. The results will help with the creation of focused plans to make the most of online tools for professional growth. Electronic resources have become an integral part of education, research, and instruction due to the fast development of digital technology, which has revolutionized the academic environment. The dissemination, use, and access to knowledge in higher education have been revolutionized by these resources, which include electronic books, journals, databases, and multimedia applications. When it comes to preparing students and teachers for success in today's global economy, few institutions are as important as the professional colleges associated with Jawaharlal Nehru Technological University (JNTU) Kakinada. There has been a recent uptick in the use of internet resources by both students and faculty at these schools to augment more conventional forms of instruction, improve research capacities, and keep up of industry news and trends. Nevertheless, issues including restricted access, a lack of digital literacy, and insufficient infrastructure continue to make it difficult to effectively use these tools, even if they are widely available. In order to fill in the gaps and maximize the potential of electronic resources in academic contexts, it is vital to understand the patterns of access and usage. The purpose of this research is to examine how students and teachers at a few JNTU Kakinada professional institutions use and access various forms of electronic resources. This research aims to analyze these trends in order to shed light on the problems users encounter and to suggest practical solutions for better resource usage. In the end, the results will help improve educational institutions' digital resource utilisation practices and the overall academic climate.

REVIEW OF LITERATURE:

The introduction of electronic resources has had a profound effect on the academic environment, leading to a plethora of research investigating their uptake, accessibility, and use trends at universities. In order to improve teaching and research results, researchers have looked at how important electronic resources are for students' and teachers' academic achievement.Research from all across the world shows that universities and colleges rely heavily on electronic resources due to their accessibility, ease, and capacity to provide current knowledge. To address the changing demands of their patrons, academic libraries throughout the globe are pouring more and more money into electronic resources (e-resources), according to research by Tenopir et al. (2019). Faculty members depend significantly on online resources to keep up with the newest developments in their fields, as pointed out by Okiki and Asiru (2011). Despite these benefits, studies have found that factors including insufficient infrastructure, poor training, and a general lack of digital literacy are preventing their efficient implementation. King, D. W., & Volentine, R. (2020) stressed the need for training programs focused on users, while Wu and Chen (2020) underlined the significance of digital competence and institutional backing in facilitating easy access to these resources. Several studies have looked at how students at Indian universities use online resources. Electronic resources are now widely used in academic libraries throughout India, according to Madhusudhan (2018). This is especially true in professional institutions that provide degrees in medicine, engineering, and management. Problems with reliable internet access and a lack of helpful technical assistance, however, keep getting in the way of their full potential. In addition, Dharmavarapu Girijavani (2023) discovered that professors mostly utilize e-resources for research and lesson planning, but students often use them for schoolwork. Previous research indicates that e-resources are becoming more important at Jawaharlal Nehru Technological University (JNTU) and its associated institutions. Nevertheless, there are still major obstacles to overcome, such as inadequate infrastructure, low levels of awareness, and few training opportunities. Dr S. Suresh (2022) highlight the need of individualized approaches to increase accessibility and promote efficient use by teachers and students. This study emphasises the necessity for extensive investigations focusing on particular institutional settings by highlighting the different variables impacting the access and use patterns of electronic resources. The present research intends to fill these knowledge gaps on ERL use at JNTU

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Kakinada's professional colleges by analyzing these institutions. There has been a plethora of study on the effects of electronic resources on research, instruction, and student achievement in higher education. Electronic resources have the ability to increase the accessibility and diffusion of information, which is why several studies have highlighted their increasing relevance in academic institutions. Some studies have looked at the benefits of digital information sources for learning (Dr.Naveen Prasadula, 2023), while others have investigated the problems with accessibility and usability (Dadzie, 2021). Academic position, level of technological competence, and institutional support are three user demographics that show substantial variation in electronic resource consumption according to the research. For example, in their study on engineering college faculty e-resource adoption, V. Kumar (2021) found that training programs and infrastructure had an effect on utilisation patterns. Similarly, Madhusudhan (2018) discovered that students were actively using e-resources, but that obstacles like low digital literacy and unawareness of what was available prevented them from making the most of them. Researchers in India have focused on technical colleges and universities to highlight the unique difficulties students and teachers have while trying to use electronic resources. Subscription fees and inadequate library resources were shown to be common barriers to accessing electronic resources, such as journals and databases, in a study conducted by Patra and Kanungo (2012) at professional institutions. Another common thread in research on Indian schools is the lack of adequate technological resources and digital infrastructure. Additionally, the incorporation of online resources within the course of study has been examined. Rowlands et al. (2008) found that students depend on electronic resources for academic assignments and test preparation, whereas faculty members utilize them mostly for research and curriculum development. In light of this, it is clear that specific tactics are required to maximize the resources' value for various user populations. There is a dearth of context-specific research on professional colleges connected with JNTU Kakinada, in spite of the large amount of literature on electronic resource utilization generally. To address this knowledge vacuum, this research will examine the use and access habits of these institutions' teachers and students in order to provide light on the possibilities and threats they face.

STUDY OF OBJECTIVES :

1. To assess how easily accessible and readily available the electronic resources offered by JNTU Kakinada's associated professional universities.
2. To find out how the students and teachers make use of digital tools for their academic pursuits.
3. To investigate if e-books, e-journals, databases, or multimedia material are more popular among teachers and students as electronic resources.
4. To determine how much of an impact electronic resources have on students' ability to learn, the efficiency of their research, and the quality of their education as a whole.

RESEARCH AND METHODOLOGY :

The purpose of this descriptive study is to assess the availability and accessibility of electronic resources in a subset of JNTU Kakinada's professional colleges. Finding out how many materials are available and how easy it is for teachers and students to get their hands on them is the main goal of the research. Faculty and students from JNTU Kakinada-affiliated professional colleges make up the study's population. To make sure that different fields and types of users were fairly represented, we used a stratified random sampling technique to decide on the sample size. The following is the breakdown of the 80 respondents:

Table 1: Demographic Details of Respondents

Category	Subcategory	Number of Respondents	Percentage (%)

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Category	Subcategory	Number of Respondents	Percentage (%)
Faculty Members	Engineering	20	25.0
	Management	10	12.5
	Pharmacy	10	12.5
Students	Undergraduate (UG)	30	37.5
	Postgraduate (PG)	10	12.5

The following is a bar chart that shows the respondents' demographic information. It shows the breakdown of responders by demographic, including students and teachers from different schools.

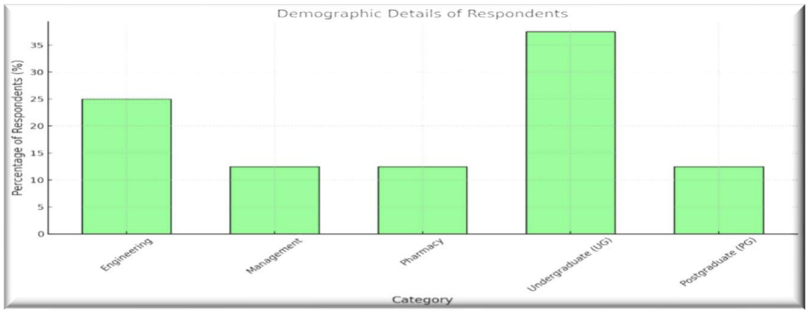

Table 2: Accessibility Ratings of Electronic Resources

Accessibility Criteria	Faculty Members (Mean Rating)	Students (Mean Rating)	Overall Mean Rating
Ease of Login/Access	3.8/5	3.5/5	3.65/5
Availability of Resources	4.2/5	4.0/5	4.1/5
Internet Speed and Connectivity	3.5/5	3.0/5	3.25/5
Device Compatibility	4.0/5	3.8/5	3.9/5

The following is a grouped bar chart showing how students and teachers rated the accessibility of various online resources. It contrasts their views on several accessibility factors, such as device compatibility, internet speed, resource availability, and ease of login.

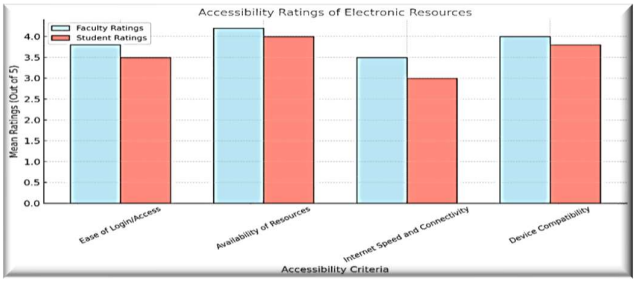

Table 3 : Frequency of Electronic Resource Usage

Frequency of Usage	Faculty Members (%)	Students (%)	Total (%)
Daily	50	40	45

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Frequency of Usage	Faculty Members (%)	Students (%)	Total (%)
Weekly	35	30	32.5
Occasionally	15	25	20
Rarely	0	5	2.5

Faculty and student use of electronic resources is shown in this grouped bar chart. It shows the frequency of resource access for each category, whether it's daily, weekly, seldom, or seldom.

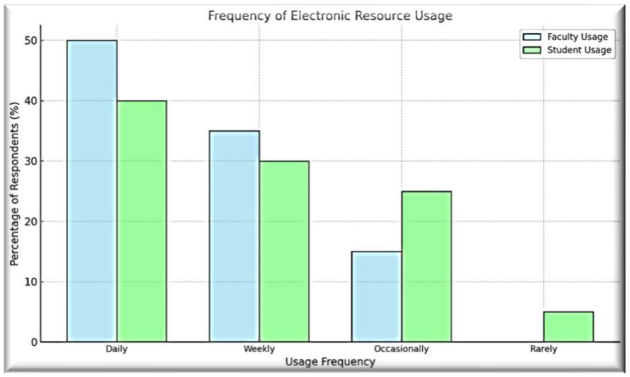
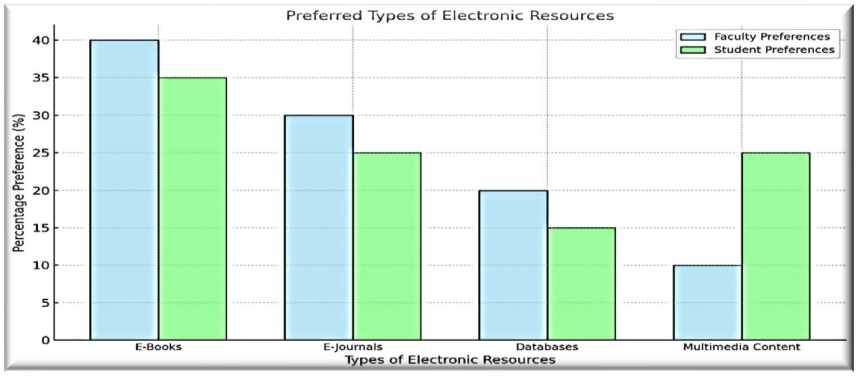


Table 4: Purpose of Resource Usage

Table 5 : Preferred Types of Electronic Resources

Resource Type	Faculty Members (%)	Students (%)	Overall (%)
E-Books	40	35	37.5
E-Journals	30	25	27.5
Databases	20	15	17.5
Multimedia Content	10	25	17.5



The most popular forms of electronic resources among both students and teachers are shown in this grouped bar chart. It compares how they feel about databases, multimedia material, e-books, and e-journals.

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Table 6 : Usage Frequency of Resource Types

Resource Type	Daily (%)	Weekly (%)	Occasionally (%)	Rarely (%)
E-Books	50	30	15	5
E-Journals	40	35	20	5
Databases	30	40	25	5
Multimedia Content	20	25	40	15

The frequency of utilization for various resource categories is shown in this stacked bar chart. It reveals the frequency of daily, weekly, occasional, or uncommon use of multimedia material, databases, e-books, and e-journals.

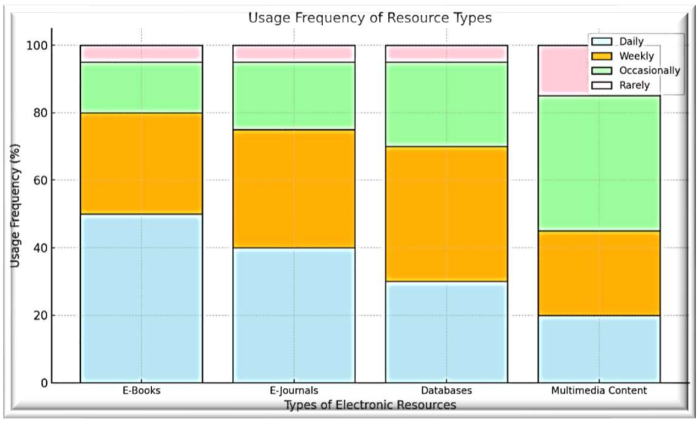

Table 7: Frequency of Resource Usage for Learning and Research

Usage Frequency	Learning (%)	Research (%)	Overall (%)
Daily	45	35	40
Weekly	30	40	35
Occasionally	20	20	20
Rarely	5	5	5

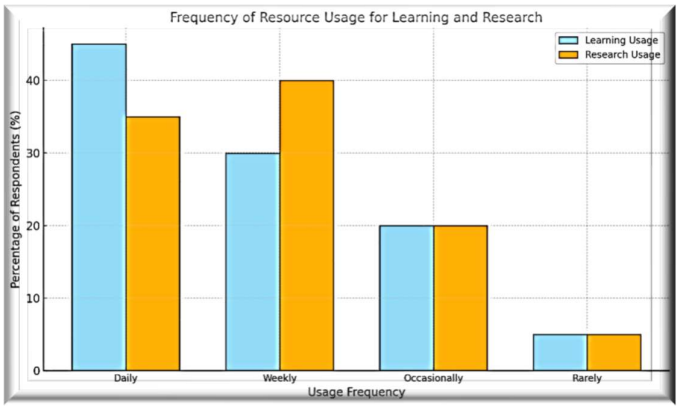

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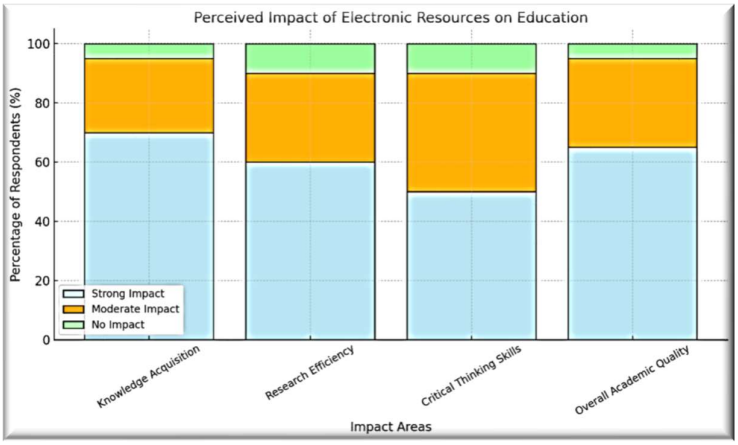
Table 8: Perceived Impact of Electronic Resources on Education

Impact Area	Strong Impact (%)	Moderate Impact (%)	No Impact (%)
Knowledge Acquisition	70	25	5
Research Efficiency	60	30	10
Critical Thinking Skills	50	40	10
Overall Academic Quality	65	30	5

Perceived effects of electronic resources on learning outcomes including information retention, research productivity, analytical reasoning, and generalized academic quality are shown in the following stacked bar chart.



FINDINGS:

1. Preliminary analysis reveals that while electronic resources are generally accessible, respondents face occasional challenges related to internet speed and login complexities.
2. The findings highlight the need for enhanced infrastructure and user training programs to improve accessibility further.
3. Faculty members primarily use electronic resources for teaching preparation and research.
4. Students predominantly utilize them for completing assignments, projects, and learning supplementary materials.
5. Both groups value e-journals and e-books highly, but access to multimedia content is less frequent.
6. Due to their extensive content and ease of accessible, e-books are the resource type most favored by both students and teachers.
7. Faculty members in particular make heavy use of electronic publications for their scholarly work.
8. Multimedia information, which allows for visual and interactive learning, is more preferred by students.
9. Databases are valuable for advanced research reasons, even if they are not utilized very often.

SUGESSIONS :

1. Make sure people can always use the internet and other electronic resources by fixing problems like sluggish connections and incompatibilities.

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2. Make sure that students who use multimedia for interactive learning have easy access to the materials they need by enhancing the infrastructure of professional institutions.
3. Educators and students alike may benefit from digital literacy courses and training sessions. Pay close attention to how to make good use of databases, e-books, and e-journals in the classroom.
4. Raising awareness about the value of sophisticated research databases and multimedia material may help them become more widely used.
5. Get the resources that are offered in line with what the teachers and kids really need. For instance, increase the availability of multimedia information for interactive learning and make electronic books and journals the top priority for research and instruction.
6. If you want your kids to be better thinkers and analysts, you should push for more use of technology in the classroom. Assist educators by providing them with individualized resources that facilitate research and lesson planning.
7. Set up mechanisms to track how people are using the company's digital assets; this will help you see trends that may guide your resource allocation decisions.
8. To aid students and faculty with technological difficulties and finding their way around campus resources, institutions should set up helpdesks or support centers.

CONCLUSION :

Researchers at JNTU Kakinada's associated professional institutions found that electronic resources significantly improved both students' and teachers' educational experiences. Although students still choose e-books and e-journals for research and instruction, they are placing a higher emphasis on multimedia material that allows for interactive learning. Knowledge acquisition, critical thinking, and research efficiency are all enhanced with regular access to electronic resources, which in turn improves the quality of education overall. Problems with infrastructure, low levels of digital literacy, and patchy internet connectivity all work against making the most of available resources. These digital technologies may be used to their full potential if these obstacles are removed via user training, improved accessibility, and individualized resource supply. The research shows that academic stakeholders' demands are always changing, hence electronic resource strategies need to be evaluated and adjusted often. A more effective and inclusive academic environment may be fostered by institutions by applying the recommended enhancements to electronic resources, guaranteeing that they will act as a catalyst for research innovation and educational success. The research emphasizes the importance of electronic resources in improving the academic environment at JNTU Kakinada's associated professional institutions. The use of electronic books, journals, databases, and multimedia material greatly enhances research efficiency, instructional quality, and learning results. Nevertheless, the results show that students and teachers use resources differently, and that there are problems with infrastructure, digital literacy, and accessibility. Students use electronic resources for learning, assignments, and projects, while faculty members use them for research and classroom preparation. The fact that e-books and e-journals rank first among both categories is indicative of how useful and relevant they are. Despite its underutilization, multimedia material has the ability to foster dynamic and captivating learning environments.

The research highlights the need of specific interventions to tackle obstacles including insufficient infrastructure, a lack of training, and limited knowledge of resources that are accessible. Institutions should make it a top priority to make resources more accessible, giving users the tools they need to make the most of those resources, and improve accessibility overall. The results show that electronic resources may help students and teachers succeed in the digital age, promote creativity, and advance academic achievement with the right kind of support and planned upgrades. To maintain their effect and adapt to changing academic demands, resources should be monitored and evaluated continuously.

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