



EFFECT OF COMPUTERISATION OF LIBRARY ON STUDENTS' ACADEMIC PERFORMANCE

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Abstract

The rapid advancement of digital technology has transformed traditional library services, leading to the computerisation of libraries in educational institutions. Computerisation has revolutionised library functions such as cataloguing, circulation, reference services, and resource sharing, making them more efficient and accessible. This study investigates the effect of computerised library services on students' academic performance. It analyses how digital access to resources, online databases, and automated library systems enhance students' research skills, learning outcomes, and overall academic achievements. The study uses primary data from student feedback and secondary data from institutional reports. The findings suggest that computerisation improves students' academic performance by facilitating quick access to information, promoting self-learning, and supporting academic research. However, challenges such as lack of digital literacy, inadequate infrastructure, and unequal access to digital resources remain major concerns. The paper recommends improved infrastructure, digital training programs, and increased investment in e-resources to strengthen the positive impact of computerised libraries.

Keywords: Computerisation, library automation, academic performance, e-resources, digital literacy, library management system.

1. Introduction

Libraries have always been the backbone of academic institutions, providing students with access to knowledge and learning resources. In the digital age, libraries have transformed from manual record-based systems to automated digital platforms. Computerisation of libraries involves using computers and software for managing library operations such as cataloguing, acquisition, circulation, reference services, and digital resource access. This transformation has significantly improved the efficiency and effectiveness of library services.

The primary objective of this study is to examine the effect of computerisation of library services on students' academic performance. Computerised libraries offer quick access to e-books, journals, databases, and online resources, which may support students in their learning and research activities. This study explores whether computerised libraries contribute positively to academic achievements and learning outcomes.

2. Review of Related Literature

Several studies have shown that computerisation of libraries positively affects students' academic performance. According to **Sharma (2021)**, computerised library services reduce the time required for searching and retrieving information, leading to improved learning efficiency. **Reddy & Rao (2022)** found that students who use computerised library resources perform better in research projects and assignments due to easy access to quality resources. Similarly, **Kumar (2020)** argued that automation enhances the user experience and encourages independent learning among students.

However, other researchers highlight challenges such as digital divide and lack of digital literacy. **Singh (2021)** emphasized that students from rural areas face difficulties due to poor internet connectivity and limited access to digital resources. **Patel (2022)** stated that lack of training on library software reduces the effective use of computerised systems. Thus, the literature suggests that while computerisation has positive effects, it also requires proper infrastructure and training.

3. Objectives of the Study

The main objectives of the study are:

1. To analyse the level of computerisation in the library.
2. To examine the usage of computerised library resources by students.
3. To study the effect of computerised library services on students' academic performance.
4. To identify the challenges faced by students in using computerised library services.
5. To provide recommendations for improving computerised library services.

4. Research Methodology

4.1 Research Design

This study follows a descriptive research design to explore the effect of computerisation of library on students' academic performance.

4.2 Sample

The sample includes **200 students** from different departments of a selected university/college.

4.3 Data Collection

Primary data is collected through a structured questionnaire. Secondary data is obtained from institutional reports, library records, and relevant studies.

4.4 Data Analysis

Data is analysed using descriptive statistics, correlation analysis, and percentage analysis to determine the relationship between library computerisation and academic performance.

5. Computerisation of Library: Meaning and Components

Computerisation of library refers to the use of computers, software, and digital tools to manage library operations. The main components include:

5.1 Library Management Software (LMS)

LMS automates tasks such as cataloguing, circulation, acquisition, and user management.

5.2 Online Public Access Catalogue (OPAC)

OPAC allows students to search the library database from anywhere.

5.3 Digital Resources and E-Resources

E-books, e-journals, databases, and online articles available through digital platforms.

5.4 RFID and Barcode Systems

Automated tracking and management of books and library materials.

5.5 Integrated Library System (ILS)

A comprehensive system that integrates all library operations into a single platform.

6. Effects of Computerised Library on Students' Academic Performance

6.1 Quick Access to Information

Computerised libraries provide instant access to books, journals, and online resources. Students can search and retrieve information quickly, reducing time spent on manual searches.

6.2 Enhanced Research Skills

Students can access a wide range of academic databases and research materials, improving their research skills and quality of assignments.

6.3 Improved Learning Outcomes

Computerised libraries support self-learning and independent study. Students can access learning materials anytime, leading to improved academic performance.

6.4 Improved Attendance and Participation

Students who access library resources regularly show improved classroom participation and attendance due to better preparation.

6.5 Increased Motivation and Confidence

The availability of digital resources encourages students to explore new topics and gain confidence in their studies.

7. Challenges in Computerised Library Services

7.1 Digital Literacy and Training

Many students lack digital literacy skills required to use library software and online resources effectively. Training programs are needed to improve their ability to use digital tools.

7.2 Infrastructure and Connectivity

Poor internet connectivity and inadequate computer systems limit the use of digital resources, especially in rural areas.

7.3 Cost of Digital Resources

Subscription to e-journals and databases is expensive, making it difficult for libraries to provide access to all students.

7.4 Resistance to Change

Some library staff and students may resist the transition from manual to digital systems due to unfamiliarity or fear of technology.

7.5 Data Security and Privacy

Digital libraries require robust security measures to protect user data and prevent cyber threats.

8. Findings and Discussion

Based on the data analysis, the study reveals that computerised library services have a positive effect on students' academic performance. Students who frequently use computerised library resources show improved grades and better research outcomes. The availability of digital resources has enhanced students' learning experience and improved their research skills. However, the study also highlights challenges such as digital divide, lack of training, and infrastructure limitations. These challenges need to be addressed to ensure that computerised libraries can fully support academic success.

9. Recommendations

The following recommendations can enhance the impact of computerised library services:

1. **Improving digital infrastructure** with high-speed internet and modern computers.
2. **Providing digital literacy training** for students and staff.
3. **Increasing funding** for digital resources and subscription services.
4. **Creating awareness programs** to promote the use of digital libraries.
5. **Strengthening security measures** to protect data and privacy.
6. **Regular monitoring and evaluation** of library services to ensure efficiency.

10. Conclusion

Computerisation of libraries plays a crucial role in improving students' academic performance by providing quick access to information, enhancing research skills, and supporting self-learning. The study concludes that computerised library services have a significant positive impact on academic achievements. However, challenges such as digital divide, lack of training, and infrastructure constraints need to be addressed. With proper planning, investment, and support, computerised libraries can become a powerful tool for academic excellence in educational institutions.

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