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## **PERCEIVED IMPACT OF HEALTHCARE**

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**PERCEIVED IMPACT OF HEALTHCARE  
PROFESSIONALS ON LABORATORY INFORMATION  
SYSTEMS**



**MANIPAL**  
**ACADEMY of HIGHER EDUCATION**

*(Deemed to be University under Section 3 of the UGC Act, 1956)*

A dissertation submitted in partial fulfilment for the award of

**“M.Sc. Health Information Management”**

Degree to

**“MANIPAL ACADEMY OF HIGHER EDUCATION”  
2021**

By

ASHA K B

Under the Guidance of

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**DEPT. HEALTH INFORMATION MANAGEMENT**

**MCHP, MAHE**

# ABSTRACT

**TITLE:** Perceived Impact of Healthcare Professionals On Laboratory Information Systems

**PURPOSE:** To assess the perceived impact of healthcare professionals on Laboratory information systems.

**BACKGROUND:** The research on clinical information systems and automated data entry systems have been predominantly restrained to EHRs, their contribution in error management and their usability. The studies on the usability of EHRs reveal how integral it is in facilitating the smooth workings of a system and how it impacts the purpose of the system, affecting the quality of care it serves. Observing the lack of research on LIS, this study attempts to assess the usability of LIS through the attitudes and experiences of LIS end users, and locate factors and connections between the users and their work environment.

**METHOD:** A cross sectional study was distributed among the LIS users of the department of Laboratory Medicine in Manipal Hospital, Bangalore. Designed with three objectives of reviewing LIS users' experience, locating factors affecting usability and analyzing connections if any between user characteristics and user variables; it employed a five point Likert scale and System Usability Scale(SUS) statements. Using data analysis, the respondents' responses were calculated to assess factors and relations affecting the usability of LIS.

**RESULTS:** A total of 70 LIS end users' responses were recorded. The study population reacted to the installation of LIS positively and viewed it as a valuable investment for the laboratory. Among the nine user variables, seven were found to have statistically significant associations with issues affecting LIS end users in a laboratory setting, namely, gender, age, work experience using

LIS, educational qualification, department within laboratory medicine, type of LIS training and job position.

**CONCLUSION:** The LIS end users had a positive attitude towards LIS and acknowledged its role in the smooth functioning of the work flow in the laboratory. The study also established the multifaceted nature of the relationship between the LIS end user and LIS.

**KEYWORDS:** “Laboratory information systems”, “LIS”, “end user”, “impact”, “usability”, “Clinical information systems”, “CIS”, “HIS”, “SUS”