Information explosion increases the difficulties for a user to quickly identify and locate useful information resources. In order for libraries to provide user-centered services, it is important to examine not only what, but also why users select and use an information resource over others. The present study aims to investigate how resource characteristics, library environment, and individual differences factors affect users' selection and use of information resources by testing a proposed Information Resources Selection and Use Model (IRSUM) based upon the Theory of Reasoned Action (TRA) and the Technology Acceptance Model (TAM).

Public health students in a higher institution in the Midwestern United States were study subject. Data was collected through focus group and self-reported questionnaires and was analyzed with Structural Equation Modeling (SEM) techniques.

The study found that online databases, e-journals, and the Internet were the public health students' primary resources. Perceived usefulness, perceived ease of use, perceived least physical effort, instructor's influence, and reference librarian's influence largely mediated the impact of external variables on the resource selection, while fully mediating their impact on the actual resource use. Among 20 statistically significant paths, perceived ease of use had the strongest impact on students' resource selection while perceived usefulness had the strongest impact on students' actual resource use.

These findings provide important theoretical and practical implications. The research model fills a gap in the theoretical development in information science. In practice, the study findings strongly suggest that system designers should enhance electronic resources' ease of use through a user-centered system design. Librarians should also actively get involved in the system design and implementation as representatives of users. In addition, advocating and leading information literacy education in their parent institutions, conducting user-centered collection development, marketing library resources and services through multiple approaches, and providing a comfortable and multi-functional library environment are all important and on-going tasks for librarians to optimize library's functions in order to keep up with the ever-changing information age and meet users' needs.