

FACTORS AFFECTING SATISFACTION AND USE OF INSIGNIA MOBILE APPLICATION: A SURVEY OF UNIVERSITY STUDENTS

Iqra Ramzan

M.Phil. Scholar LIM, Department of Library & Information Management, Faculty of Arts and Humanities Superior University, Lahore

Govt. Associate College for Women Ellahabad

iqraramzan97@gmail.com

Dr. Ahsan Ullah

POSTDOC Fellow, Islamic Research Institute, International Islamic University Islamabad. Senior Librarian, Govt. Associate College, Pindi Bhattian

ahsanullah_libr@yahoo.com

Prof. Dr. Iqbal Hussain Asad

Department of Library & Information Management Superior University, Lahore

iqbalhussainasad@gmail.com

Rabia Amjad

Information Executive, Riphah International University, Lahore

rabia.amjad@riphah.edu.pk

Abstract

As technology continues to shape educational landscapes, the integration of mobile library services into academic environments has become increasingly significant. The role of academic libraries is important for integration of these services. The current study investigates the level of satisfaction and use. It also examined the relationship of different factors with satisfaction and actual use of mobile app Insignia among students of two universities in Pakistan. The current study used quantitative research approach. Questionnaire was used to collect data. Both the descriptive and inferential statistics were used to analyze data. Data was collected from 269 students through the structured questionnaire.

The findings showed that less than one third of the students were using this app always or frequently. Furthermore, students were not satisfied with Insignia app. The results showed low or insignificant effects of gender, age, and education on satisfaction and use of mobile app. Perceived ease of use and perceived usefulness has positive but weak correlation with satisfaction and actual use of mobile app. This research contributes to the growing body of literature on mobile technology in education and offers practical implications for librarians, students, and technology developers striving to optimize mobile library services for student needs.

Key Words: Mobile library services, University students, Acceptance, Utilization, Technology adoption, Academic libraries,

1. Introduction

The latest developments in information and communication technology (ICT) have brought about a dramatic transformation in communication methods. One of the fastest-growing technologies influencing every industry is mobile technology. Mobile phones are being utilized in most parts of the world. The proportion of people who own a mobile phone is an indicator of internet penetration, as reported by the International Telecommunication Union (ITU) and surprisingly mobile phones have become the most popular gateway to the internet (Bento, 2016). As the most widely used electronic Internet device, mobile phones have made a significant contribution to people's learning processes. In the age of mobile Internet, mobile information services have been incorporated into a number of industries worldwide (Liu & Abrar, 2020).

The use of mobile phone in information centers and libraries has also increased. Libraries are now looking at ways to distribute their services on mobile phones and other small-screen devices so that their customers may access them anytime, anywhere, as more and more people are accessing the Internet from computers and mobile phones (Kubat, 2017). The main advantage of a mobile application is to free users from utilization a web browser to access certain information or services. Applications, both free and commercial, are widely accessible these days for a wide range of users, including librarians and information workers. Not much is known about the factors that could shape or influence their behavior when utilizing mobile application services (Papoutsi & Drigas, 2017).

Advances in mobile technology and the increasing availability of mobile devices such as smartphones and tablets are changing the way that learning occurs. Students can use mobile library services and do academic information searches for meeting their information needs. Students can utilize mobile library services to swiftly access information during academic talks. The students in higher education may be ready to embrace mobile learning but the availability of mobile devices cannot ensure its acceptance (Kalisa & Picard, 2017). Researchers have examined the factors influencing user adoption of mobile learning by applying well-known user adoption theories in information systems, such as the theory of organized behavior, the technology acceptance model and the unified theory of acceptance and use of technology (Chao, 2019).

A brand-new approach to education has emerged as a result of mobile technology. Mobile devices allow users to access a wide range of information from anywhere at any time. This feature makes it easier and more flexible for students to access rich digital resources so they may learn at any time, from anywhere. The use of mobile devices among students for their studies both inside and outside of the classroom is growing, and mobile learning is becoming an essential component of traditional education (Alanezi & Al-Axwani, 2020). Conventional library services have undergone a change in recent years due to the rise of mobile devices and the integration of technology. Pakistani university libraries are no different, as they work hard to adjust to the shifting demands and tastes of their patrons (Bhatti, 2017).

Investigating the association between several factors associated with mobile library services in Pakistani university libraries might yield important information about the efficacy, usage trends, and implications of these services (Azam & Ahmad, 2023). Find out whether there is a relationship between the number of students enrolled overall and the frequency with which mobile library services are used. This might show whether the demand for mobile library services rises in response to great enrollment. The current study concentrates on the satisfaction and use of mobile library services among university students in Pakistani universities. It has identified the impact of demographic factors, Perceived Ease of Use (PEU), Perceived Usefulness (PU) with satisfaction and Actual Use (AU) of mobile library application Insignia.

The study may add to the use of information by analyzing usages of mobile library services for the users. It may be beneficial to the field of curriculum and instruction, as well as libraries, librarians, students, faculty members, and administrators. The findings of this study may serve as a basis for enhancing the services offered by academic libraries' mobile libraries. The evaluation of mobile library apps in library settings has a big impact on whether or not future consumers will support recently launched services. Finally, by examining the use of mobile library applications, academic libraries may provide their patrons more convenient, engaging, easy-to-use, and satisfying mobile services (Rafique, et al., 2020).

2. Research Questions

A relationship may exist between the usage patterns of mobile library services and student demographics (such as age and socio-economic status). Comprehending demographic patterns might assist in customizing services for certain user segments. University libraries may enhance their mobile library services to better serve their patrons' demands and increase overall

effectiveness and satisfaction by analyzing correlations between these factors (Agyemang, 2021). The following research question have been designed to carry out the current study:

1. Are university students satisfied with interface and services of Insignia mobile library app?
2. Does any relationship exist between demographic factors and satisfaction/actual use of mobile library app?
3. Is there any effect of PU and PEU with satisfaction and actual use of app?

3. Literature Review

The literature review has focused on the factors affection satisfaction and use of mobile library applications. An effective evaluation of a mobile library app's degree of user satisfaction requires taking into account a number of variables, such as user reviews, ratings, comments, and sometimes even direct polls or user studies. Giving an exact satisfaction rating for a given mobile library app is difficult without specific data. Nonetheless, the following broad elements influence how satisfied users are satisfied with mobile library apps (Chaputula, 2016).

Users of mobile phones may connect, communicate, transact, and invent using this gadget. Mobile technology and devices offer a lot of promise to greatly improve teaching and learning. Through enhanced accessibility to library materials, increased ubiquity of library resources, and the development of novel avenues for strengthening ties between patrons and libraries, mobile applications can foster teaching (Gillian, 2020).

A well-thought-out and user-friendly interface that facilitates book searching, borrowing, and reading may have a big influence on user happiness (Tsoi, 2020).

Readers anticipate a wide-ranging and all-encompassing selection of books, encompassing both well-known titles and specialized subjects. Adding to and updating the catalogue on a regular basis can help improve customer satisfaction (Tanner, 2020).

A mobile library application needs to be glitch-free, responsive, and stable. Crashes or slow loading times might annoy customers and lower their happiness. The ability to retain top talent in a competitive market necessitates a sharp focus on the requirements of the job itself as well as a structured approach to timely and relevant training opportunities. Research has also confirmed the close relationship between staff development and retention (Usherwood et al., 2021).

Quickly responding to questions, concerns, or comments from users can increase their level of satisfaction and loyalty. Users anticipate their reading preferences and personal information will be kept private and safe. Strong security measures combined with transparent privacy rules may boost user satisfaction and confidence (Mofokeng, 2021).

Surveys, app store reviews, social media networks, or specialized user feedback platforms are excellent ways to get direct input from real users about how satisfied they are with a particular mobile library app. Ratings and review analysis can assist identify areas for improvement and prioritize changes to improve customer happiness (Genc-Nayebi & Abran, 2017).

There may be potential relationships between user happiness scores and how simple it is to use mobile library services. Enhancing accessibility might potentially result in heightened user satisfaction. Examine the relationship between user involvement and the accessibility of digital resources via mobile library services. Larger digital collections may encourage more interaction between teachers and students. Find out whether there is a relationship between using mobile library services and having access to the internet. Because online resources are more easily accessible in places with stronger connectivity, utilization may be higher there (Rahiem, 2020).

The existing research on university students' acceptance and use of mobile library services stresses the significance of user-centered design, technological infrastructure, and institutional support in enabling their seamless integration into academic environments. Universities can facilitate students' access to library resources and aid in their academic performance in an

increasingly digital environment by addressing these aspects and adopting developing technology (Burudi & Ndegwa, 2021).

Disparities in the use of mobile library services between the sexes were examined. Recognizing these differences can assist in customizing services to guarantee accessibility and inclusiveness for all users. Compare the ways in which faculty members, graduate students, and undergraduate students use mobile library services (Scanlon, 2021).

Digital literacy levels may have impact on how they interact with mobile library services. Giving people the tools and assistance they need to improve their digital literacy can enable them to fully utilize mobile platforms. Examine the ways in which cultural norms and preferences impact the uptake and use of mobile library services. Designing services that are culturally relevant to the university community can be facilitated by an understanding of subtle cultural differences (Sanders, 2021).

Relationship exists between the uptake of mobile library services and the uptake of new technologies (such as online databases and mobile applications). The adoption of mobile library services is higher at universities that have a greater tendency to adopt new technologies. There is a relationship between the qualities of training library personnel receives on mobile services and the effectiveness of such services. Employees with proper training may be better at helping users with mobile resources (Malik, 2023).

Personalized suggestions, bookmarking, offline reading, and device synchronization are a few more elements that can improve customer pleasure and experience overall (Kucirkova, 2023). Offering choices for color schemes, font sizes, and accessibility features can enhance user satisfaction, particularly for users with particular tastes or limitations (Virtanen, 2023).

4. Research Design and Methodology

The scientific method is the set of tools used to collect and analyze data (Ali & Abbas 2019). Research design is the plan for connecting the conceptual research problems to the pertinent and achievable empirical research. It is an inquiry which provides specific direction for procedures in research (Creswell, 2017). Quantitative research design has been used to achieve the objectives of the study. Correlation has been examined among different factors with satisfaction and the use of mobile library services. The survey method is most appropriate for studies that have individual people as the part of analysis (Bhattacharjee 2012). "Surveys are capable of obtaining information from large samples of the population. It is also well suited to gathering demographic data that describe the composition of the sample" (McIntyre, 1999). Therefore, the survey research method was used to collect data from the people through a structured questionnaire. The questionnaire was adopted from earlier studies.

Student's users of the libraries are considered as the population of the study. The library users included PhD, M.Phil, and BS degree program students of FAST and Comsats University. The convenient sampling technique was used to collect the data from the participants. Experiences of mobile app use in the institution all contributed to the lived. Data was collected from students of FAST University Lahore and COMSATS University, Lahore

For collection of data, the researcher created a questionnaire on Google forms and circulated the online link was shared in the WhatsApp group of students of FAST University Lahore and Comsats University of Lahore. For data analysis phase, a number was assigned to each questionnaire. The data was analyzed by using the Statistical Package for the Social Science (SPSS). Both the descriptive and inferential statistics were used to analyze data. Independent Sample t-test and Pearson correlation were applied to examine differences and relationships for different factors.

5. Results

5.1 Demographic details of respondents

The results show that Fast University with sample size (42.0%) has lower percentage as compared to Comsats University (58.0%).

The results showed that the majority of participants, have BS education (n=166, 61.7%) followed by MPhil (24.9%) and PhD (13.4 %).

The gender-wise participation of the respondents shows that the female has relatively high participation, (n=144, 53.5%), than male (46.3%).

With respect to age, nearly half of the respondent have 16-20 years of age (49%) followed by 21-24 years (33%) and 25 or above (18%).

Table 1: Demographic details of respondents

Variables	Frequency	Percent
Name of University		
Fast University	113	42.0
Comsats University	156	58.0
Education		
PhD	36	13.4
MPhil	67	24.9
BS	166	61.7
Gender		
Male	125	46.3
Female	144	53.3
Age		
16-20	131	48.7
21-24	89	33.1
25 and above	49	18.2
Total	269	100

5.2 Actual use of Insignia the ILS Mobile app

With respect to the actual use of mobile app among students, the frequency showed a lower level of use of this application. Less than one third students use this application always or often. Less than one third used it sometimes. Slightly more than one third used it rarely or never.

Table 2: Actual use of Insignia app (N = 269)

Sr.	Statements	N	%
1	Always	21	07.80
2	Often	55	20.40
3	Sometimes	94	34.90
4	Rare	77	28.60
5	Never	22	08.20
	Total	269	100

5.3 Satisfaction with interface of the Insignia ILS Mobile app

With respect to satisfaction with App's interface, the mean score shows that students were not satisfied with it. For all four statements, the mean value is less than 4.

Table 3: Satisfaction with interface of Insignia ILS Mobile app/ (N = 269)

Sr.	Statements	Means	Std. iation
1	Content available on the app is relevant	3.16	2.11
2	App responds quickly to commands	3.14	1.05
3	Navigating through the app to find resources is easy	3.07	.888
4	App's interface is user-friendly	2.95	.986

1- Strongly Disagree, 2- Disagree, 3- Natural, 4- Agree, 5, Strongly Agree

5.4 Satisfaction with services of Insignia ILS Mobile app services

The students are not satisfied with the services of Insignia. The mean values are slightly higher than 3. It shows that services provided through Insignia have lower quality.

Table.4: Satisfaction with services of Insignia ILS Mobile app/ (N = 269)

Sr.	Statements	Means	Std. iation
1	Receive notifications/reminders	3.20	.962
2	Renew items	3.10	1.00
3	Place holds	3.08	1.12
4	Check loan status and due dates	3.02	.992

1- Strongly Disagree, 2- Disagree, 3- Natural, 4- Agree, 5, Strongly Agree

5.5 Factors affecting satisfaction with Insignia

Satisfaction variable was computed from eight statements of satisfaction with services and interface. Gender has no effect on the satisfaction level of students. There is a positive significant relationship of age and PEU with satisfaction among students. Qualification has insignificant negative correlation with satisfaction. PU has positive correlation with satisfaction but not significant.

Table 5: Factors affecting satisfaction with Insignia (N = 269)

Variables	Test	Value	Sig.
Gender	Independent Sample t	1.188	.236
Age	Pearson correlation	.147*	.016
Qualification	Pearson correlation	-.089	.145
PU	Pearson correlation	.040	.518
PEU	Pearson correlation	.145*	.017

5.6 Factors affecting actual use of Insignia

The values show that gender has not affected the actual use of Insignia app. Age and qualification has positive correlation but it is not significant. PU and PEU have positive

correlation with actual use but relationship for PU is significant. Perceived usefulness increases the actual use of the Insignia app.

Table 6: Factors affecting satisfaction with Insignia (N = 269)

Variables	Test	Value	Sig.
Gender	Independent Sample t	-.018	.986
Age	Pearson correlation	.015	.802
Qualification	Pearson correlation	.110	.071
PU	Pearson correlation	.167**	.006
PEU	Pearson correlation	.073	.235

6. Findings

The main goal of this research was to explain how different factors have affected the satisfaction and use of mobile library services among university students. The results showed that the frequency usage of Insignia app is very low. Similarly the satisfaction of students with services and interface of mobile application is very low. Students are not satisfied with the interface and available services. The study showed very few strong connections between different factors and satisfaction/use of mobile app.

Analysis showed that different factors used in the study had a small or no effect on user satisfaction and actual use of mobile app. PU and PEU have positive correlation with satisfaction and use of mobile app. PEU has strong positive correlation with satisfaction and PU has significant positive correlation with actual use of mobile app. Gender has no effects on satisfaction and actual use of Insignia app. Age has significant positive correlation with satisfaction among students.

7. Conclusion

Contrary to expectations drawn from existing literature, the current study showed a lower level of satisfaction among students for the use of mobile library application. Different factors like age, education and perceived usefulness has influenced the satisfaction and usage patterns. The minimal variance exerted by different factors suggests the presence of other unexplored factors that could influence user satisfaction. The relatively even distribution across age groups and genders did not significantly impact on satisfaction and usage patterns. The study reveals small, important connections that contribute to user satisfaction, highlighting the complexity of technology use in schools. It suggests a need for broader research and improved survey tools. The research challenges traditional assumptions about age, university performance, and user usefulness, highlighting the need for more in-depth studies on mobile library services. The study helps us understand the use of mobile library services. It shows the need for a better understanding of how different factors affect the use and enjoyment of mobile library services among students.

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