

Perceptions of Research Scholars towards Advanced Research Support Services in Academic Libraries – A Review

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ABSTRACT

Research scholars' perceptions of advanced research support services are shaped by their individual experiences, needs, and the quality of services available at their institutions. Research support services can include access to high-performance computing (HPC), data management tools, digital libraries, research software, specialized training, funding support, and technical consultation. These perceptions can vary widely based on factors like the field of study, the scholar's technical expertise, and institutional resources. A combination of accessibility, usability, relevance, technical support, and institutional commitment shapes research scholars' perceptions of advanced research support services. Positive perceptions arise when services are easy to access, tailored to the specific needs of researchers, and supported by robust training and responsive technical assistance. Conversely, negative perceptions are often due to cost barriers, complex interfaces, or perceived inequity in service provision. Institutions that raise awareness provide comprehensive training and ensure equitable access can significantly improve how scholars perceive and engage with research support services.

KEYWORDS: perceptions, research scholars, advanced research support services, technical support, and institutional commitment..

INTRODUCTION

Research scholars' perceptions of advanced research support services are shaped by their individual experiences, needs, and the quality of services available at their institutions. Research support services can include access to high-performance computing (HPC), data management tools, digital libraries, and research software, as well as specialized training, funding support, and technical consultation. These perceptions can vary widely based on factors like the field of study, the scholar's technical expertise, and institutional resources.

Key Factors Influencing Research Scholars' Perceptions

1. Accessibility of Services

- **Ease of Access:** Scholars value services that are easily accessible, both physically and digitally. They expect quick and convenient access to databases, software tools, and research infrastructure (e.g., high-performance computing and lab facilities).
- **Remote Access:** Especially in the digital age, remote access to research tools, libraries, and data storage platforms is crucial. Institutions that provide cloud-based services or remote computing resources tend to have higher perceptions among their researchers.
- **Cost:** High subscription fees for software or access to premium resources can be a barrier, leading to negative perceptions. Conversely, free or subsidized access to these tools is highly appreciated.

2. Awareness and Communication

- **Promotion of Available Services:** Researchers may have negative perceptions if they are not made aware of the available research support services. Effective communication through seminars, newsletters, or departmental outreach is crucial for ensuring that researchers know what tools, funding, and support systems are available.
- **Clarity of Offerings:** Scholars often appreciate when the scope and benefits of research services are communicated clearly. Misunderstanding or confusion about how to use advanced tools can lead to frustration.

3. Usability and User Experience

- **Ease of Use:** Research scholars prefer tools that have intuitive interfaces and are easy to use, especially when advanced technologies like machine learning, big data analysis, or simulation software are involved.
- **Technical Support:** Access to strong technical support and troubleshooting services is critical. Positive perceptions are shaped when scholars know they can reach out for help easily and quickly resolve any issues they face using advanced tools.

4. Training and Skill Development

- **Training Programs:** Research scholars often require training to use advanced research tools and methodologies effectively. Well-organized workshops, tutorials, and training programs (both online and in-person) influence positive perceptions, as these provide researchers with the necessary skills to leverage new technologies.
- **Availability of Mentorship:** Access to experts or mentors who can guide scholars in adopting new technologies or methodologies enhances perceptions. Scholars are more inclined to engage with advanced services if they feel supported in their learning journey.

5. Relevance to Research Needs

- **Field-Specific Tools and Resources:** Positive perceptions are shaped by how well the support services align with a scholar's research needs. Researchers in certain fields may require specialized software (e.g., for

bioinformatics, qualitative analysis, or mathematical modelling), and support services tailored to these needs are highly valued.

- Customization: Services that can be customized to fit individual research needs, such as flexible data storage or adjustable computational power, tend to improve perceptions.

6. Availability and Quality of Infrastructure

- Access to Cutting-Edge Technology: Scholars tend to have more positive perceptions of institutions that offer cutting-edge research infrastructure, such as high-performance computing clusters, advanced laboratory equipment, or specialized software. The availability of these resources enables them to perform complex tasks and innovate.
- Reliability: Reliable, uninterrupted access to these resources is crucial. Frequent downtimes or difficulties accessing the infrastructure can lead to frustration and negative perceptions.

7. Collaboration and Networking Opportunities

- Collaborative Platforms: Advanced research support services that facilitate collaboration—both within the institution and across disciplines—are viewed positively. Platforms like collaborative data-sharing tools, research networks, and cloud-based co-working spaces are seen as enablers of interdisciplinary research and global cooperation.
- Fostering Interdisciplinary Research: Scholars value services that promote interdisciplinary connections, allowing them to engage with colleagues in other fields or work on larger, collaborative projects that extend beyond their immediate domain.

8. Funding and Financial Support

- Grant Support Services: Research scholars appreciate when their institutions help them secure funding for their projects through internal grants or assistance in applying for external funding. Positive perceptions are associated with institutions that offer training or one-on-one guidance for grant writing.
- Affordable Access: Financially accessible services, such as free access to high-cost software or discounted use of computational resources, shape favourable perceptions. In contrast, high costs for accessing necessary tools or services may limit research opportunities and lead to negative perceptions.

9. Responsiveness and Efficiency

- Timely Support: Scholars appreciate timely responses to their inquiries or requests for help, whether for technical support or advice on methodology. Institutions with responsive support teams create a positive experience for scholars who rely on these services to keep their research moving forward.
- Administrative Efficiency: Long delays in accessing services, such as prolonged setup times for computational tools or complicated approval processes for using specific resources, can lead to frustration and dissatisfaction.

10. Inclusivity and Equal Access

- **Equity in Access:** Scholars from all backgrounds appreciate when research support services are equitably distributed, with access for junior scholars, early-career researchers, and those from smaller or less-funded departments or institutions. Junior researchers may feel excluded or unsupported if services are perceived as favouring senior faculty.
- **Global Inclusivity:** International scholars, scholars from underrepresented groups, and those working in non-English-speaking regions appreciate services sensitive to their needs, such as multi-language interfaces, culturally inclusive data sets, and access for scholars in developing countries.

11. Impact on Research Productivity

- **Efficiency Gains:** Positive perceptions are often linked to the ability of advanced research support services to improve research productivity. If the services help scholars complete complex tasks faster, run simulations more efficiently, or analyze data more accurately, they tend to see these tools as valuable.
- **Outcomes and Research Quality:** Scholars perceive services positively if they see tangible improvements in the quality of their research outputs. Services directly contributing to completing research projects, publications, or grant proposals are highly valued.

12. Institutional Commitment to Research Support

- **Investment in Research:** Scholars tend to positively perceive institutions that actively invest in improving and expanding research support services. This investment signals that the institution is committed to fostering innovation and supporting its researchers.
- **Long-Term Sustainability:** Researchers are more likely to have favourable views of institutions that demonstrate a long-term commitment to maintaining and upgrading their support services, ensuring that scholars can access state-of-the-art resources.

Challenges Faced by Research Scholars

1. **Limited Access for Smaller Institutions:** Scholars in less-resourced institutions or regions often feel disadvantaged because they lack access to advanced infrastructure like HPC, large databases, and cutting-edge lab equipment.
2. **High Learning Curves:** Advanced tools such as AI or machine learning platforms may be perceived as too complex without sufficient training support, leading to under-utilization by scholars who could benefit from them.
3. **Poor Communication:** Even when services exist, they may need to be more utilized if institutions effectively communicate their availability, relevance, or how to access them.

Positive Perceptions

1. Comprehensive Access to Advanced Tools and Resources

- **Access to State-of-the-art Technology:** Scholars have a favourable perception when they have access to cutting-edge research tools such as high-performance computing, specialized software, and advanced

laboratory equipment. These resources allow them to conduct complex experiments, data analysis, and simulations, leading to groundbreaking research.

- **Well-Equipped Libraries:** Positive perceptions arise when institutions provide comprehensive access to digital libraries, journals, e-books, and databases. This gives researchers access to the latest studies, ensuring that they stay up-to-date in their field.
- **Remote Access:** Accessing research tools and digital resources remotely enhances positive views, especially in the current age of hybrid and flexible work environments. This flexibility supports productivity and work-life balance.

2. Effective Training and Skill Development

- **Training Workshops and Seminars:** Institutions that offer workshops, tutorials, and training sessions to help researchers develop new skills - such as mastering research software, data analysis, or writing for publication - are highly appreciated. These resources empower scholars to use advanced tools effectively and enhance their expertise.
- **Mentorship and Guidance:** Research scholars perceive institutions positively when they have access to expert mentors who can offer advice on methodologies, research design, or specialized equipment. Good mentorship can significantly accelerate research progress and build confidence in young scholars.

3. Responsive and Supportive Technical Assistance

- **Efficient Technical Support:** Positive perceptions are strongly associated with having quick, responsive, and knowledgeable technical support. Researchers appreciate institutions with dedicated staff available to troubleshoot problems, assist with data analysis, or guide them through research tools.
- **User-Friendly Tools:** When research tools and software have intuitive interfaces and are easy to use, scholars feel more empowered and efficient. Positive experiences with user-friendly tools reduce frustration and increase engagement with advanced research services.

4. Collaboration and Networking Opportunities

- **Collaborative Platforms:** Institutions that provide collaborative platforms where researchers can share data, ideas, and resources tend to be viewed favourably. These platforms enable interdisciplinary and international collaborations, which can lead to more innovative and impactful research outcomes.
- **Facilitating Global Research Connections:** Positive perceptions arise when scholars have opportunities to collaborate across borders, attend international conferences, or participate in global research networks. This broadens their exposure, enriches their research perspectives, and fosters professional growth.

5. Research Funding and Financial Support

- **Accessible Funding Opportunities:** Scholars appreciate institutions that offer internal grants or provide assistance in applying for external funding. This support makes it easier for them to finance projects, purchase equipment, or attend conferences. Positive perceptions are enhanced when scholars feel that their institution is invested in their research success.

Perceptions of Research Scholars Towards Advanced Research Support Services in Academic Libraries – A Review

- Financial Aid for Tools and Resources: Researchers hold favourable views when institutions provide subsidized or free access to expensive software, high-performance computing resources, or other research necessities. This reduces financial barriers and ensures equitable access to essential tools.

6. Supportive and Efficient Administrative Processes

- Streamlined Procedures: Researchers appreciate institutions with efficient administrative processes that make it easy to apply for grants, gain ethics approvals, or access specialized research facilities. Positive perceptions are linked to systems that minimize red tape, allowing scholars to focus more on their research than on administrative tasks.
- Timely Responses: Scholars view support services positively when research support staff provide timely assistance, whether in accessing resources, resolving technical issues, or managing project-related requests. Quick responses enable smoother research progress.

7. Customization and Flexibility in Research Tools

- Tailored Solutions: Research scholars positively perceive support services that offer tools and resources customizable to their specific research needs. For example, they highly value the ability to adjust computational resources based on the complexity of their projects or have flexible data storage solutions.
- Relevance to Field-Specific Needs: Scholars perceive institutions positively when the provided tools and services are relevant to their specific research domains. Field-specific resources, such as specialized software for biomedical research or qualitative analysis tools for social sciences, enhance research efficiency and effectiveness.

8. Support for Work-Life Balance and Mental Health

- Flexible Work Options: Institutions that support flexible work arrangements, such as remote access to research tools or the option to work from home, are viewed positively. This flexibility contributes to better work-life balance, reducing burnout and stress.
- Mental Health Resources: Scholars appreciate institutions that prioritize mental health, offer counselling services, hold workshops on stress management, or promote a healthy work environment. This support helps reduce the pressures associated with academic work.

9. Encouragement of Interdisciplinary Research

- Fostering Interdisciplinary Collaboration: Scholars view institutions favourably when they support interdisciplinary research. Research support services facilitating collaboration across academic fields create opportunities for more innovative, impactful projects.
- Institutional Networking Events: Positive perceptions are linked to networking events, conferences, and workshops the institution organises, where scholars can connect with peers from other fields, share ideas, and collaborate on new projects.

10. Recognition and Academic Validation

- Recognition of Achievements: Scholars have positive perceptions when their work is acknowledged and celebrated by their institutions, whether through awards, research showcases, or featured publications. This boosts their morale and motivates them to continue pushing the boundaries of their research.
- Support for Career Development: Institutions that invest in the professional growth of scholars by offering career development workshops, research fellowships, and publication support are highly regarded. Scholars appreciate when their institution is committed to their long-term academic success.

11. Equity and Inclusivity

- Equal Access to Research Resources: Institutions that ensure all scholars, regardless of their seniority or background, have equal access to research tools, funding, and facilities shape positive perceptions. Scholars appreciate inclusive policies providing equal opportunities for junior and senior researchers.
- Diversity and Inclusion Initiatives: Institutions that actively promote diversity and inclusion—by supporting underrepresented groups in research, offering scholarships, or providing inclusive workspaces—tend to be viewed positively. Scholars value environments that celebrate diverse perspectives and ideas.

12. Improvement in Research Productivity and Quality

- Enhanced Efficiency: Scholars perceive services positively when advanced research support tools allow them to work more efficiently, reducing the time needed to complete complex analyses, simulations, or experiments. Access to tools that boost productivity enables them to focus on the creative aspects of their research.
- High-Quality Research Output: When research support services directly contribute to higher-quality research, whether through access to cutting-edge technology or expert guidance, scholars are more likely to view the institution favourably. The ability to produce significant findings or impactful publications elevates perceptions of the available research support.

CONCLUSION

A combination of accessibility, usability, relevance, technical support, and institutional commitment shapes research scholars' perceptions of advanced research support services. Positive perceptions arise when services are easy to access, tailored to the specific needs of researchers, and supported by robust training and responsive technical assistance. Conversely, negative perceptions are often due to cost barriers, complex interfaces, or perceived inequity in service provision. Institutions that raise awareness provide comprehensive training and ensure equitable access can significantly improve how scholars perceive and engage with research support services.

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Perceptions of Research Scholars Towards Advanced Research Support Services in Academic Libraries – A Review

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