

Learner Support Systems in distance Learning Education Systems (Comparative Analysis of VU and AIOU)

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Abstract: This examine sightsees and equates the learner assist systems at Virtual University (VU) and Allama Iqbal Open University (AIOU) in Pakistan, focusing on their effectiveness in talking the desires of distance newbies. The number one independent is to evaluate how these structures differ in structure, delivery, and consumer-friendliness, and to assess their strengths and obstacles in facilitating pupil appointment, retention, and academic success. A mixed-strategies method is used, combining quantitative surveys, qualitative semi-based interviews, recognition organization discussions, and observations. Virtual Learning Management System (LMS), with over 85% of respondents indicating satisfaction with the availability of course materials. AIOU's hybrid model obtained combined reviews, with 70% of college students knowing the significance of its nearby take a look at centers and conventional broadcast strategies in addressing technological gaps in rural areas. The findings monitor that VU's completely digital version excels in scalability and correctness however faces demanding situations in terms of virtual inequality, with college students in rural and underserved areas suffering with internet access and restrained communicate with teachers. AIOU's hybrid model, combining conventional face-to-face help with virtual assets, is more inclusive, mainly for college students in faraway regions, but suffers from inconsistencies in useful resource allocation and logistical disorganizations. The take a look at highpoints the rank of addressing the digital divides and suggests that a hybrid method, integrating the strengths of both models, should higher meet the diverse needs of newbies. The research donates to the broader discourse on distance schooling in Pakistan and offers references for a hit learner guide structures to beautify scholar success and appointment. The study also opens avenues for future studies at the lengthy-time period impact of various learner help models and the way they may be tailor-made to cope with diverse pupil wishes crossways socio-economic and geographic contexts. This study provides essential new facts for the Application & improvement of learner help machine in Pakistan and different comparable international instances. It is likewise highlighting how innovation distances mastering can enhance accessibility and inclusivity for all college students.

Keywords: Generative AI, Higher Education, AI in Classrooms, Teacher Empowerment, Educational Equity, AI Ethics, AI-Ready Workforce

INTRODUCTION

Indeed, in Pakistan the project of remodeling distance education changed into one of the multiple dimensions of instructional transformation that become imperatively completed in the past few years. Virtual University (VU), Allama Iqbal Open University (AIOU) is few examples inside the context of Pakistan, which enabled hundreds of students to wait, even though they couldn't attend traditional academic establishments because of exclusive motives. According to Mills & Tait (2004), learner aid systems are a risky issue in distance education, supplying a bridge among college students and the organization, accordingly justifying emotions of isolation and appealing college students' standard gaining knowledge of revel in. The effectiveness of those help systems is specifically obtrusive in establishments like Pakistan's Virtual University (VU) and Allama

Iqbal Open University (AIOU), each of which have mounted specific learner aid frameworks tailored to their respective pupil populations.

In Pakistan, the remodeling of distance education has been a key part of educational transformation in recent years, with institutions like Virtual University (VU) and Allama Iqbal Open University (AIOU) leading the way. VU, known for its fully online model, uses an advanced Learning Management System (LMS) offering lectures, readings, and interaction through forums, enabling students to study flexibly and maintain communication with instructors and peers. In contrast, AIOU follows a more traditional approach, beneficial for rural students lacking internet access, though it lacks the interactivity and technological richness of modern systems. This evaluation explores how VU and AIOU's learner support services address effectiveness, accessibility, and adaptability for diverse student groups. While both institutions have improved academic and technical support, emotional and psychological assistance remains limited. As Pakistan expands distance learning, integrating mobile technologies and bridging digital gaps will be crucial. This research fills an important gap by examining digital and hybrid models in a context marked by infrastructure challenges, using a mixed-methods approach to strengthen its findings. By analyzing VU's fully virtual delivery model alongside AIOU's hybrid system, the research aims to assess the extent to which each institution mitigates technological, geographic, and engagement barriers. The findings contribute to a deeper understanding of structural strengths and weaknesses in supporting diverse learner populations across the country.

The Virtual University's model supports studies on the blessings of technologically driven aid in distance learning. [Anderson \(2008\)](#) highlights the advantages of online Learning Management Systems (LMS) in facilitating asynchronous learning, in which college students can access route happy and resources on their schedules. VU employs a sophisticated LMS to host recorded lectures, quizzes, checks, and discussion forums, allowing college students to engage in self-directed gaining knowledge of at the same time as staying connected with peers and instructors. [Salmon \(2000\)](#) underscores the importance of "e-moderation" in online education, in which instructors play a guiding function in dialogue boards and virtual lecture rooms, assisting students in direct instructional demanding situations. VU's use of digital lecture rooms and interactive forums exemplifies this idea, creating an extra personalized getting-to-know-you experience and improving engagement. However, literature also identifies capacity dangers to a fully online version. [Garrison & Anderson \(2004\)](#) caution that the absence of face-to-face interaction can, from time to time, lead to emotions of separation, which may also lessen motivation and avoid learning results. This challenge is specifically applicable in VU's version, wherein college students in low-connectivity regions may additionally struggle to maintain reliable access to digital resources, a problem referred to in research on digital fairness ([Helsper, 2010](#)).

[Choudhry et al., \(2008\)](#) compared student support services at AIOU and UKOU. They found AIOU improving but still lacking in areas like counseling, communication tools, and student associations. They recommended decentralization and better support facilities at AIOU. [Kazmi & Ameen \(2022\)](#) explored AIOU's role in promoting education in rural Sindh. They highlighted AIOU's flexible learning system and outreach initiatives as key factors in increasing access to education for underprivileged communities. [Ashfaq & Rizwan \(2024\)](#) examined the accessibility of educational websites of AIOU and Virtual University. Their study revealed that while both institutions offer digital access to learning, AIOU's website lacks user-friendly design and accessibility features compared to Virtual University, impacting student support and engagement. [Gul et al. \(2017\)](#) explored students' perspectives on the effectiveness of e-learning technologies in higher education. Their findings showed that students generally had a positive attitude towards e-learning tools, recognizing their role in enhancing flexibility, access to resources, and self-paced learning. [Qureshi et al. \(2014\)](#) presented a strategic roadmap for improving distance education in universities. They emphasized the need for robust infrastructure, well-trained faculty, and effective student support systems to enhance the quality of distance learning. The study highlighted that integrating modern technologies and ensuring continuous

feedback mechanisms are essential for delivering better educational outcomes in distance education settings.

Instead, AIOU's hybrid version displays the ability noted in literature for accomplishing students with restricted virtual get admission to. In line with [Tinto \(2012\)](#) concept of student perseverance, AIOU combines traditional and virtual factors, allowing college students to preserve an experience of belonging through in-individual connections at nearby centers, while nonetheless profiting from virtual transmissions and on-line sources. [Tinto \(2012\)](#) theory highlights that student retention depends on academic and social integration. At Virtual University (VU), strong academic support through its online platform helps academic integration, but limited social interaction may hinder engagement. (AIOU) provides more social integration through regional centers and face-to-face support but faces challenges with inconsistent academic delivery and technology. These differences explain variations in retention, with VU excelling academically and AIOU offering stronger social support.

Literature via [Holmberg \(1995\)](#) emphasizes those personal interactions with trainers, even though periodic in-person tutorials play an essential role in assisting scholar motivation and know-how. AIOU's enormous community of nearby centers offers college students with in-person help, workshops, and tutoring opportunities, taking into account direct steerage and a personal connection to the organization, that is critical for college kids in far off or rural areas who won't have dependable internet get entry to. The use of revealed substances and television or radio declares further aligns with [Keegan \(1996\)](#) statement that distance education must adapt to local infrastructure, particularly in under-resourced settings, to beautify accessibility and mastering fairness.

Comparative studies in distance studying have always highlighted the importance of tailoring support structures to the particular wishes of the scholar demographic ([Simpson, 2002](#)). VU's completely virtual version may be extra suitable for city college students with reliable internet get admission to and a preference for bendy, self-paced studying, even as AIOU's hybrid version gives extra inclusivity for students in rural and underneath-resourced regions, wherein digital get entry to stays a barrier.

According to [Akhter \(2012\)](#) the adoption of generation by establishments like VU has been a key issue in enhancing the accessibility of training in urban regions of Pakistan, wherein net connectivity is usually reliable. Though, digital disparity remains tension, especially in rural areas where get admission to excessive-speed internet and cutting-edge gadgets is restricted. Investigation by [Helsper \(2010\)](#) and the Pakistan Telecommunication Authority (2020) shows that the virtual divide in Pakistan disproportionately impacts students in rural regions, hindering their ability to absolutely take part in on line training. This has led a few students to call for the development of hybrid or mixed fashions that association virtual learning with conventional support mechanisms. AIOU's model, which integrates print-based materials, nearby look at centers, and radio/television declares, gives a way to this task. AIOU's method has been praised for its inclusivity, permitting students from all regions of Pakistan, consisting of people with limited access to the net, to retain their education. [Holmberg \(1995\)](#) and ([Tinto, 2012](#)) argue that social interplay and integration are crucial for pupil persistence and achievement, and AIOU's local study facilities provide students with crucial possibilities to engage with instructors and peers.

In Pakistan, a broader fashion is the increasing gratitude of the location of all-inclusive LSS that pass past educational assistance. ([Mills & Tait, 2004](#)) and [Simpson \(2002\)](#) argue that emotional and social aid offerings are serious to distance rookies' fulfillment, especially in a country like Pakistan, where students frequently revel in social loneliness and shortage the motivation wished for self-directed getting to know. The growing nature of learner support in Pakistan's distance education device additionally underscores the importance of adapting to the countries varied demographic. A increasing frame of research in Pakistan, consisting of that [Bakhsh et al. \(2017\)](#), suggests that cellular-primarily based training has the ability to convert the panorama of distance gaining knowledge of in the USA. By means of presenting bendy, low-fee learning answers that complement conventional assist offerings.

Cox (2018) examines the aggregate distance mastering version, amalgamation regional and virtual techniques to enhance accessibility and choice. The take a look at highlights its competence in addressing numerous learner desires, enhancing retention, and connecting gaps between traditional and modern-day education. Gupta et al. (2024), highlight the digital divide in distance training, highlighting limitations like online setup and socio-financial inequalities, and phone for trendy strategies to make certain equitable get entry to. Murtaza & Hui (2021) spotlight tests in Pakistan's higher schooling, inclusive of useful resource limits and outdated applications, recommending the use of era and progressed trainer education to record those troubles. Habib (2023) discovers digital transformation strategies for attractive higher schooling in struggle-affected societies. The observe highlights leveraging generation to overcome barriers inclusive of confined access to assets and instability, at the same time as stimulating comprehensive and bendy studying environments to assure persisted training all through screw ups. Ashfaq & Rizwan (2024) evaluated the website accessibility of AIOU and VU, highlighting strengths and gaps in user-friendliness, design, and inclusivity. They emphasized the need for improved digital access to support diverse learners in distance education.

Research Question

The research questions guiding this study are:

1. How do the learner assist systems at Virtual University (VU) and Allama Iqbal Open University (AIOU) differ in structure, transport, and accessibility?
2. What are the strengths and obstacles of the fully digital assist version used by VU in addressing the desires of distance learners in Pakistan?
3. How does AIOU's hybrid version, combining conventional and cutting-edge methods, support its numerous scholar populations, especially in rural and underserved regions?
4. In what methods do virtual inequality and get entry to generation effect the effectiveness of learner assist structures at each VU and AIOU?
5. What insights may be drawn from the proportional analysis to decorate the design and implementation of LSS in distance education in Pakistan and similar contexts?

Objective of Study

The objective of this study is to conduct a comparative evaluation of learner help structures in distance education, focusing especially on Pakistan's leading establishments: Virtual University (VU) and Allama Iqbal Open University (AIOU). By examining the structure, performance, and accessibility in their respective aid fashions, this takes a look at goals to understand how these structures cope with the different demanding situations confronted by means of distance newbies in Pakistan, including virtual inequality, social separation, and confined get right of entry to educational sources. It attempts to discover to evaluate the technological inventions hired by means of VU, such as its reliance on a completely virtual Learning Management System, and examine them to AIOU's hybrid version, which adds traditional methods like printed materials and district centers with cutting-edge tools like online and transmission content material. The look at further ambitions is to pick out the strengths and limitations of every technique in catering to a unlike scholar human beings, counting those in undeserved and faraway regions.

Significance of the Study

Observe is prime to selling and developing the LSS in distance training and in Pakistan context. The take a look at highlights how each establishment (VU) and (AIOU) are assembly the one of kind troubles of distance apprentices, like digital divide, segmentation and resourcing through comparative analysis. The paper illustrates the strengths and limits of absolutely digital and hybrid fashions, imparting insights into how every of those techniques have an effect on student appointment, retention, and fulfillment.

METHOD

The methodology for this has a look at includes a proportional and comprehensive evaluation of the learner assist systems at Virtual University (VU) and Allama Iqbal Open University (AIOU) in Pakistan. This studies services a mixed-methods approach, integrating qualitative and quantitative statistics to offer a holistic expertise of the quandary, electricity, and effectiveness of the help systems in query. The examiner starts off evolved with a huge review of current literature, including theoretical frameworks, empirical studies, institutional reviews, and international excellent practices in distance schooling. This evaluate helps contextualize the LSS in the broader landscape of distance schooling and identifies key topics, debates, and gaps within the present frame of knowledge.

A dedicated subsection explaining the theoretical lens is recommended to enhance analytical clarity. This should briefly link Tinto's persistence model to differences in retention between VU and AIOU, and apply Salmon's e-moderation framework to assess the effectiveness of VU's discussion forums. Clearly articulating these connections would strengthen the study's coherence, depth, and theoretical integration.

Tinto's Persistence Model explains that student retention depends on their academic and social integration within an institution. If students feel connected to their peers and supported in their studies, they are more likely to persist. In the context of VU and AIOU, this model helps analyze how different support structures impact student retention rates. Salmon's E-Moderation Model outlines five stages of effective online learning, from access and motivation to independent development. It emphasizes the importance of social interaction and structured support in online environments, making it a useful framework for assessing tools like VU's discussion forums. Tinto's persistence theory suggests that stronger academic and social integration leads to higher student retention. Applied to VU and AIOU, VU's fully online LMS may offer less social integration compared to AIOU's regional centers, potentially explaining differences in student persistence. Similarly, Salmon's e-moderation model could assess the effectiveness of VU's discussion forums by evaluating how well they support student interaction, motivation, and progressive engagement through structured stages.

The methodology is broadly appropriate but requires refinement for clarity, theoretical alignment, and structural coherence. The explanation is repetitive and lacks a smooth flow, with key concepts like triangulation and mixed methods needing stronger connection to a guiding theoretical framework. Vague terms like "proportional case study" should be clarified or replaced. Organizing the methodology into clear subsections and explicitly linking methods to research questions and theories would significantly improve rigor and readability.

Finally, the practice highlights a context-precise technique, thinking about Pakistan's socio-financial and educational landscape. By combining a couple of data sources and analytical methods, the look at ensures a robust and inclusive evaluation of the LSS, main to actionable suggestions for boosting distance training in Pakistan and comparable developing contexts.

Research Design

This development lets in for an in-depth examination of the two institutions' distinct models—VU's completely virtual machine and AIOU's hybrid method—whilst also facilitating a systematic contrast to become aware of patterns, differences, and areas for development. The have a look at is investigative and descriptive, searching for to apprehend now not only the shape and transport of LSS but additionally their effect on convenience, engagement, and retention in distance schooling.

The layout integrates both quantitative and qualitative techniques to offer an entire understanding of the topic. Quantitative records are collected via structured surveys focused on a varied population of college students from city, rural, and far off areas to measure variables along with delight, accessibility, and perceived effectiveness of the support systems. The qualitative phase includes semi-dependent interviews and consciousness institution discussions with college students, college, and administrators to capture nuanced visions into the operational demanding situations

and lived studies inside every model. Explanations of nearby centers and digital systems further complement the qualitative data, presenting actual-international context to the analysis. To verify the reliability and validity of the findings, the studies design integrates triangulation, combining data from a couple of sources which includes institutional reviews, policy documents, and user analytics from VU's Learning Management System (LMS) and AIOU's local center attendance logs. The proportional case looks at design emphasizes contextual understanding, considering the unique socio-financial and technological conditions of Pakistan. Advanced analytical equipment, inclusive of statistical evaluation for survey information and thematic coding for qualitative responses, are hired to interpret the findings systematically.

This research design guarantees a balanced and tough technique, enabling the observe to cope with its studies questions successfully even as contributing treasured insights to the sector of distance education in Pakistan.

Data Collection

The statistics series for this observe employs a combined-methods approach to significantly examine the LSS at (VU) and (AIOU). Multiple records sources and strategies are abused to make sure smooth-edged information of the topic. Quantitative facts are collected via based surveys dispensed to a diverse pattern of students from both universities. These surveys encompass questions about accessibility, delight, and the perceived efficiency of the assist systems, alongside demographic information to identify styles and inequalities. To supplement this, qualitative statistics is accrued through semi-dependent interviews with students, school individuals, and administrative body of workers, presenting deeper insights into personal reports, challenges, and perceptions of the support systems.

Population

This consists of the complete scholar frame enrolled in distance training applications at those establishments, college contributors liable for distributing instructional provision, and administrative personnel dealing with the structures and assets. The scholar populace is diverse, overlaying individuals from city, rural, and far-flung areas of Pakistan, with varying tiers of access to technology and differing socio-economic backgrounds.

Sampling Techniques

The observe employs a combination of appropriate sampling and stratified techniques to ensure a representative but practical subset of the populace for analysis. Stratified sampling is used to capture the variety inside the pupil populace at (VU) and (AIOU). The population is split into wonderful strata based totally on key functions including geographic region (city, rural, and far off regions), get admission to era (excessive, slight, and low), and socio-financial history. This guarantees that the pattern displays the numerous reviews and demanding situations confronted by specific organizations of inexperienced persons. Within each stratum, accessibility sampling is applied to pick out contributors based totally on their availability and readiness to participate inside the look at. The application of stratified sampling in this study ensures that both urban and rural student populations are adequately represented, thereby enhancing the generalizability and relevance of the findings. This method captures the diverse realities of distance learners across Pakistan's socio-economic and geographic spectrum.

Instrumentations

The chief studies instruments for this study encompass interview guides, based questionnaire and remark checklists, each appropriately designed to collect comprehensive and applicable data at the learner assist systems at (VU) & (AIOU). The established questionnaires are the inspiration of the quantitative facts collection, offering a mixture of near-ended questions with Likert-scale responses to degree variables including accessibility, pride, and perceived effectiveness, in addition to open-ended inquiries to detention additional insights.

For qualitative statistics, semi-dependent interview publications are superior to simplify exhaustive discussions with students, faculty, and administrative team of workers. These guides consist of huge, open-ended questions that permit contributors to share special reviews at the same time as making sure consistency across interviews. Observation checklists are used for the duration of web page visits to AIOU's local centers and at the same time as studying VU's Learning Management System (LMS) activities, permitting systematic recording of particular aspects of the LSS. To verify the validity of the units, the questionnaires and interview guides are reviewed through challenge remember specialists in distance training and piloted with a small sample of contributors from both establishments. Feedback from the experimental look at is used to refine the questions for clarity, relevance, and cultural correctness.

The reliability of the devices is installed via inner consistency tests, such as calculating Cronbach's alpha for the Likert-scale gadgets inside the questionnaires. A threshold of 0.7 or higher is taken into consideration appropriate, making sure that the units produce strong and constant outcomes. Moreover, inter-rater reliability is maintained for qualitative information by using schooling a couple of researchers on coding and evaluation procedures, ensuring reliability in expertise responses.

RESULTS & DISCUSSION

The consequences of this examine offer an in-depth assessment of the learner help structures at Virtual University (VU) and Allama Iqbal Open University (AIOU), based on facts accrued via surveys, interviews, and observations. The quantitative evaluation of survey responses exhibits that student at VU, in large part, recognize the accessibility of its fully virtual Learning Management System (LMS), with over 85% of respondents indicating satisfaction with the availability of course materials, online lectures, and virtual checks. But, an enormous 40% of students cited challenges associated with internet connectivity and the dearth of changed interaction as obstacles to fully utilizing the help machine. In contrast, AIOU's hybrid model obtained combined reviews, with 70% of college students knowing the significance of its nearby take a look at centers and conventional broadcast strategies in addressing technological gaps in rural areas. Yet, a simple 55% expressed satisfaction with the consistency and first-class of assistance services supplied through these channels, highlighting variability in resources across regions.

Table 1. Graphical analysis of Virtual University (VU) & Allama Iqbal Open University (AIOU)

Institution	Mean Satisfaction Score	Standard Deviation	Sample Size (N)
VU	4.2	0.85	500
AIOU	3.8	1.10	500

From [Table 1](#), the data shows that VU's digital getting-to-know-you technique can be more powerful in meeting pupil expectations in comparison to AIOU's hybrid model. Furthermore, [Table 2](#) shows the current distribution of internet accessibility among students at VU and AIOU. Each chart is split into two segments: college students with dependable net get entry to and people with restrained get entry to. This draws attention to an extensive digital divide that would affect the efficacy of online schooling, particularly for AIOU students in rural areas.

Table 2. Internet Accessibility among Students:

Institution	Percentage with Reliable Access	Percentage with Limited Access
VU	75%	25%
AIOU	55%	45%

Even though AIOU’s hybrid support model reaches a wider audience, it could need extra tactics to increase student interest and participation, as evidenced by the increased percentage of students in the moderate and low engagement categories, as can be seen in Table 3 and Figure 1.

Table 3. Student Engagement Levels (Scale 1-5)

Institution	High (4-5)	Moderate (3)	Low (1-2)
VU	65%	25%	10%
AIOU	50%	35%	15%

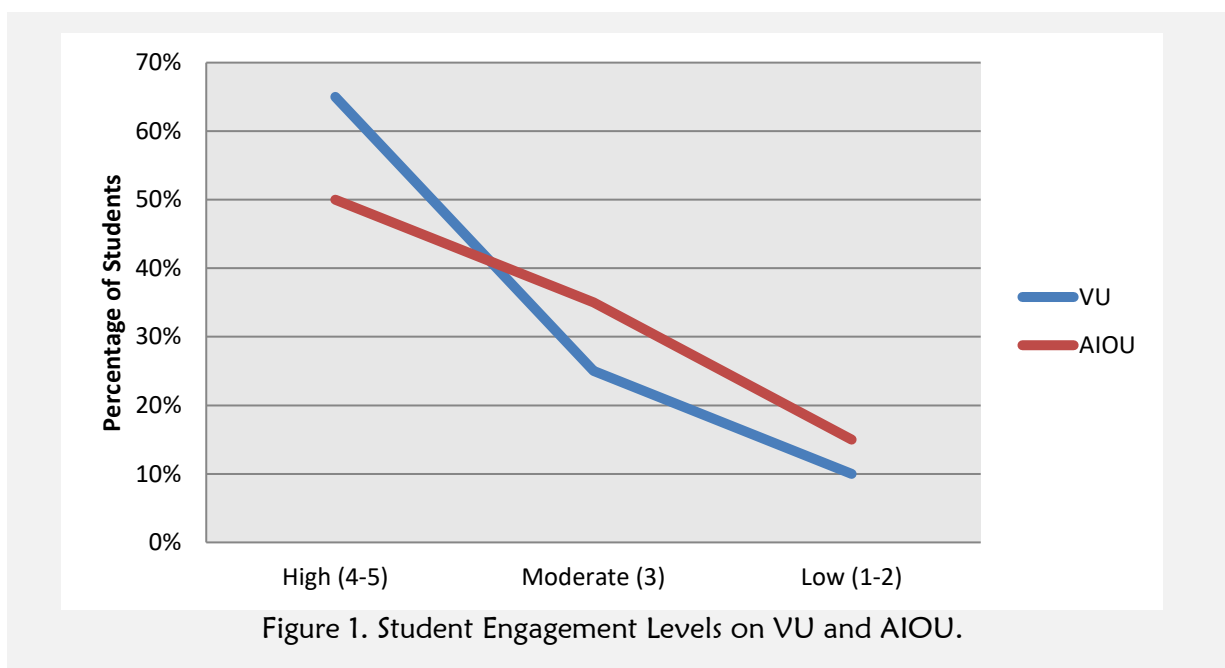


Figure 1. Student Engagement Levels on VU and AIOU.

The well-known deviation sheds mild on the variety of the facts. The usual patterns and consistency in the use of virtual assets at both schools may be better understood with the use of those statistical measurements.

Table 4. Digital Resources Utilization

Resource	VU (Number of Students)	AIOU (Number of Students)
Online Library	500	350
Discussion Forums	400	300
Video Lectures	300	450
University	Mean	Standard Deviation (S.D.)
VU	400.00	81.65
AIOU	366.67	62.36

The graphical analysis visually contrasts the digital and hybrid models, showing that while VU excels in accessibility, connectivity issues persist, and AIOU gives sturdy nearby support but struggles with uniformity. These understandings help policymakers in figuring out areas for improvement and optimizing sources to enhance learner aid effectiveness at both establishments.

The observer uses open-ended questions, Likert-scale replies, and structured questionnaires to accumulate qualitative and quantitative information on accessibility and LSS satisfaction. While the remark tick list gives an impartial evaluation of VU’s LMS and AIOU nearby facilities, interviews allowed for an in-depth investigation. Validity became guaranteed via professional opinions and pilot testing, and reliability was demonstrated by the use of Cronbach’s alpha and

inter-as an alternative reliability. These exacting techniques progress the look and act’s precision and applicability in evaluating the learner help device.

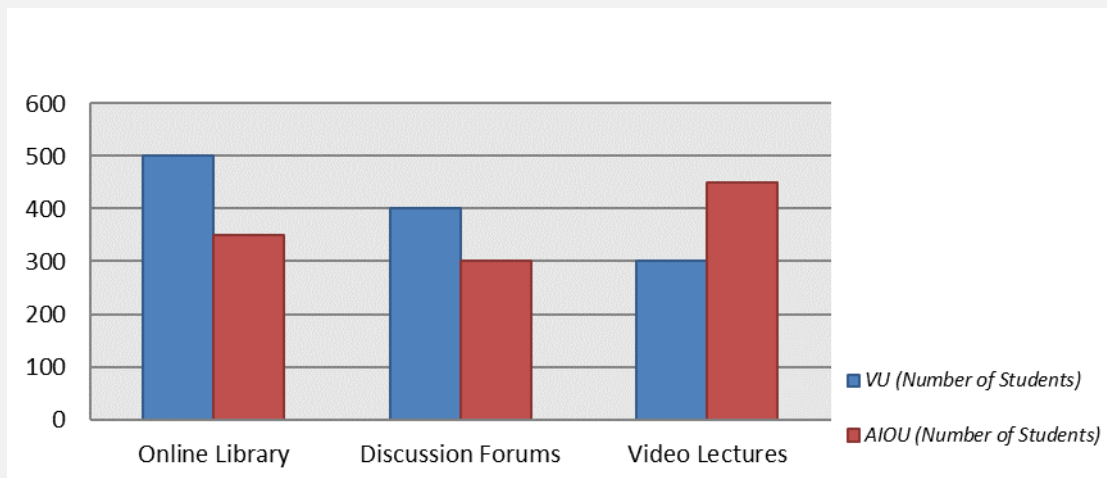


Figure 2. Comparison of Digital Resources Utilization Between VU & AIOU.

Table 5. Comparison of LSS at VU & AIOU

Category	VU (%)	AIOU (%)
LMS Satisfaction	85	0
Internet Challenges	40	0
Regional Centers Importance	0	70
Regional Support Satisfaction	0	55

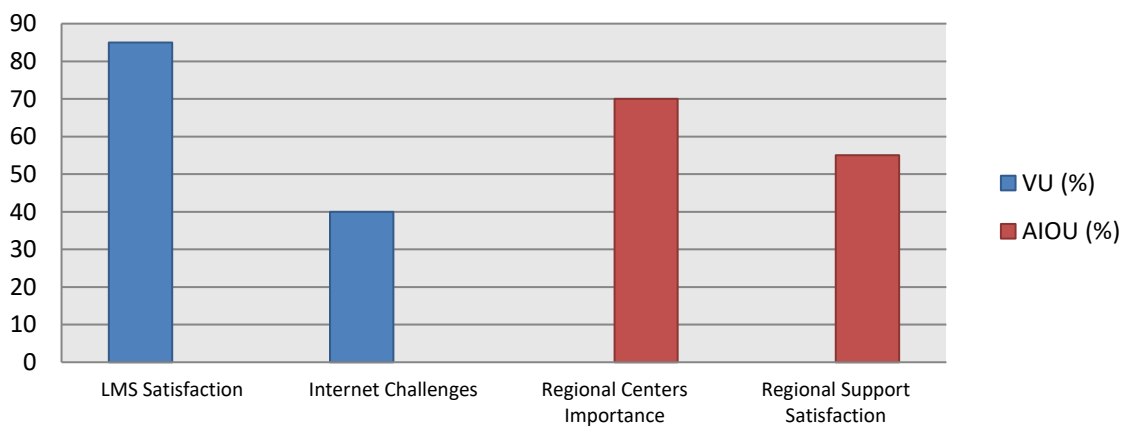


Figure 3. Comparison of LSS at VU & AIOU.

Overall, the consequences underscore the want for a more united and flexible technique to learner aid in Pakistan's distance training landscape. Combining VU’s technological strengths, including real-time feedback mechanisms and adaptive getting to know gear, with AIOU’s inclusive strategies, like network-primarily based gaining knowledge of hubs and localized guide networks, ought to bridge the gaps recognized in both structures. The findings suggest that a blended method, combining VU’s technological advancements with AIOU’s local outreach, may

provide an extra effective solution to improving learner assistance in Pakistan's distance schooling panorama. Although the study identifies notable differences between VU and AIOU, it lacks reporting of p-values or confidence intervals to establish statistical significance. Incorporating these measures would enhance the analytical rigor and substantiate the recommendation for a blended model with greater precision. The study demonstrates that VU's scalable digital model and AIOU's inclusive hybrid approach each address different learner needs, with data highlighting the potential of a blended strategy to enhance distance education equity in Pakistan.

The recommendation for a blended model integrating VU's technological strengths and AIOU's localized support is both pragmatic and well-supported by the data. Survey results, engagement metrics, and qualitative insights collectively highlight how combining digital scalability with community-based accessibility could more effectively address learner needs across Pakistan's diverse educational landscape.

CONCLUSION

This study offers an inclusive comparative analysis of the LSS at Virtual University (VU) and Allama Iqbal Open University (AIOU) in Pakistan, shedding light on the strengths, weaknesses, and powerful demanding situations of each machine. Key findings imply that even as VU's completely digital guide version gives sizable flexibility and scalability, it faces demanding situations in phrases of virtual inequality, with students in rural and underserved regions stressed with net get admission to and a loss of personalized interaction. On the alternative hand, AIOU's hybrid version—combining traditional techniques with contemporary technologies—has recognized powerful in addressing geographical disparities and imparting extra limited help, yet it is hindered through unpredictable resource allocation, outdated practices, and logistical inadequacies in a few local centers. While this study makes a precious affect to expertise the learner assists structures at VU and AIOU, it also opens up new avenues for similarly survey. Future studies could find out the long-time period educational and professional results of students in both digital and hybrid structures, as well as the effectiveness of interventions geared toward bridging the virtual divide. Conversely, the study isn't without its limitations. The key to enhancing learner guide lies in growing a blended system that mixes the strengths of both techniques: the scalability and suitability of digital getting to know tools with the changed assist and community-building functions of conventional strategies.

Findings from this examine no longer best contribute to the continuing discourse on enhancing distance schooling in Pakistan however additionally offer a roadmap for other institutions working in similar contexts globally. By figuring out the gaps and opportunities in LSS, this research requires an extra holistic technique to designing and implementing aid mechanisms that foster more scholar engagement, retention, and academic success. The ultimate purpose is to make certain that each one newbie, regardless of their geographic location or socio-economic status, have the assets and guide they need to thrive in a rapidly evolving academic panorama.

The comparison between VU's fully digital model and AIOU's hybrid approach is well-justified and addresses a clear gap in the existing literature. The study highlights how VU leverages advanced online systems to enhance flexibility and academic support, while AIOU's blended model better accommodates students facing digital inequality, especially in rural areas. By integrating insights from key theories and recent research, the study offers a nuanced understanding of how different learner support systems can be adapted to meet diverse needs in Pakistan's distance education landscape.

The study's findings underscore the need for targeted policy interventions to strengthen Pakistan's distance education landscape. Prioritizing rural broadband expansion is essential to support hybrid models like AIOU's, while standardizing regional support services can address disparities in service quality. For VU, enhancing digital engagement tools and offering offline learning alternatives would further mitigate accessibility and participation gaps, ensuring a more equitable learning environment nationwide.

To advance distance education in Pakistan, policies must prioritize rural broadband investment, standardize regional support at AIOU, and enhance offline and adaptive digital tools at VU. These steps would address persistent accessibility gaps and strengthen learner engagement across diverse regions.

In end, this study makes a chief contribution to the sector of distance education by providing a detailed proportional analysis of learner aid structures in Pakistan. It underscores the need for a more included technique to aid that combines the technological innovations of virtual getting to know with the accessibility and inclusivity of traditional methods. The findings keep broader institutions for different countries with similar socio-monetary and infrastructural demanding situations, providing a treasured outline for improving distance education systems global. Student engagement is advanced by means of VU's virtual approach, suggesting that AIOU would advantage from the usage of more generation-pushed, interactive techniques. Optimizing distance learner may also boom accessibility throughout the Pakistan, enhance instructional outcomes, and increase pupil pleasure by using fortifying digital infrastructure, improving engagement techniques, and resolving connectivity demanding situations.

RECOMMENDATION

To enhance the effectiveness of distance education in Pakistan, it is recommended that policymakers focus on investing in rural broadband infrastructure to bridge the digital divide, particularly for institutions like AIOU where rural engagement is crucial. Additionally, VU should continue developing adaptive learning technologies and offline LMS features to support students facing connectivity challenges. AIOU should standardize and improve regional support centers to ensure consistency in the quality of educational services, particularly in underserved areas. Combining VU's scalable digital model with AIOU's localized hybrid approach could provide a balanced, inclusive solution to meet the diverse needs of learners across the country. Furthermore, integrating virtual counseling services could address the gap in psychological support for distance learners, enhancing their overall educational experience.

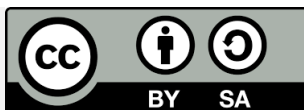
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