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# ASSESSING THE DIGITAL DIVIDE AND ITS IMPLICATIONS IN PAKISTAN: THE ROLE OF MEDIA

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**Abstract**

***Purpose*** *– This study investigates the digital divide in Pakistan and evaluates the role of media in shaping access to information, education, and employment opportunities. It examines the extent of digital disparities across demographic groups and explores how media platforms contribute to bridging or reinforcing these gaps.*

***Design/methodology/approach*** *– A quantitative survey approach was adopted with a sample of 455 respondents from diverse backgrounds. A structured close-ended questionnaire was administered to collect data on internet access, frequency of use, reliance on media platforms, and perceptions of media's contribution to reducing digital inequalities. Data were analyzed using descriptive statistics, including frequencies and percentages, to highlight key trends and disparities.*

***Findings*** *– Results reveal that while 79.1% of respondents have internet access at home and 65.9% primarily use smartphones, significant inequalities persist in terms of affordability, infrastructure, and digital literacy. Social media emerged as the most relied-upon platform for information, while traditional media such as television continues to play a supplementary role. A majority of respondents agreed that the digital divide negatively impacts education and employment opportunities, and many expressed concerns about the insufficiency of government initiatives. The findings underscore both the potential and limitations of media in addressing digital inequalities.*

***Originality/value*** *– This study contributes to the discourse on digital transformation in developing countries by providing empirical evidence of*

*how media interacts with the digital divide in Pakistan. It highlights structural, economic, and social barriers to equitable digital participation while emphasizing the strategic role of media in fostering awareness and inclusion. The insights offered can inform policymakers, educators, and media practitioners in designing targeted interventions to reduce digital disparities and enhance inclusive digital development.*

## INTRODUCTION

The digital revolution has transformed societies across the globe, redefining how people connect, access information, and participate in economic and social life. In today's world, digital technology is not only a tool for communication but also a driving force for education, employment, governance, and innovation (Jamil, 2021). However, this transformation has not been evenly distributed, giving rise to the phenomenon of the digital divide, a gap between individuals, groups, or regions in terms of access to, use of, and benefits from information and communication technologies (Khan et al., 2024). The discrepancy is a particular issue in the less-developed world, including Pakistan, and much more reliant on the issue of infrastructure, social-economic disparities, literacy, and geographic disparities. While the expansion of internet services and mobile technology has opened opportunities for many, it has simultaneously left behind those who lack adequate resources or skills to participate in the digital ecosystem (Bukhari, 2024).

Digital divide is not an issue of access to technology, but it is also an issue of utilization of the digital resources well and making life better. In Pakistan, where mobile penetration is relatively high but broadband and stable internet services are unevenly distributed, the divide reflects broader patterns of inequality (Hassan et al., 2019). Cities with the bragging infrastructure and income benefit more reliably with digital, and the issue of extremely low connection and high prices poses a challenge to settlements in rural regions. This uneven distribution significantly affects education, employment, and civic participation (Shair et al., 2023). For students, limited access to digital resources restricts learning opportunities, while for job seekers, it reduces chances to engage in increasingly digital labor markets (Hussain et al., 2024).

The media plays a very important role in this process. The media is on the verge of informing, educating and connecting both the conventional and digital people. In Pakistan, television and radio remain important for reaching large segments of the population, but digital media platforms such as social media and online news portals have grown rapidly (Jamil, 2023). Such platforms will assist in bridging the digital divide since such platforms will offer convenient avenues of information and communication particularly to the younger generation and the urban population so dependent on mobile phones. At the same time, the role of media is complicated by issues of credibility, digital literacy, and unequal access to platforms (Iftikhar et al., 2023). To those people who are digitally connected, media may give the chance of empowering and being involved. For those excluded, however, the divide is reinforced, creating an uneven landscape of opportunity and voice (Majeed et al., 2021).

There are colossal impacts of such a division. The lack of good internet connection in the education industry has placed learners in a disadvantaged position to have digital skills, online learning facilities and compete with digitally empowered

children. During the COVID-19 pandemic, for instance, the sudden shift to online learning highlighted the deep inequalities in access to technology among students across Pakistan (Zaka et al., 2023). Still on this topic, in the job market, job opportunities are becoming digitalized and they are necessitating online application, and failure to do so would put an individual in a disadvantageous situation. This divide also extends to civic participation, where digital platforms are becoming essential for engaging in political discourse, accessing government services, and participating in community decision-making (Latif et al., 2019). The disadvantaged within the online communities are at a risk of being pushed out financially, socially and most importantly, politically.

In an effort to address the digital divide, an individual must be informed of what the media has been contributing to it being either a positive or negative factor. On one hand, media platforms can democratize information, giving voice to marginalized communities and bridging gaps in knowledge (Afshar & Shah, 2025). On the other hand, without deliberate efforts to extend access and improve digital literacy, media can exacerbate inequality by privileging those who already have the means to participate (Waqar et al., 2024). Adoption of smart phones and mobile internet has been widely used in Pakistan and this has presented the potentials of reaching a large population though affordability and infrastructure has been cited as the biggest setbacks. Moreover, cultural and gender norms often restrict digital access, particularly for women in rural and conservative communities (Imtiaz et al., 2025).

This paper is a bid to discuss the digital divide issue in Pakistan by exploring how media can help in accessing, creating awareness and opportunities. By analyzing patterns of digital access, frequency of media usage, and perceptions of media's contribution to reducing inequalities, the research aims to highlight both progress and persisting challenges (Farooqi et al., 2022). The findings are intended to inform policymakers, educators, and media practitioners about the importance of addressing digital disparities and designing inclusive strategies that extend beyond infrastructure to include affordability, literacy, and equity (Rashid et al., 2018).

In conclusion, it can be asserted that the problem of the digital divide in Pakistan is a multi-dimensional phenomenon and has many consequences on the education, employment, and civil rights domain. This is a dynamic that revolves around the media platforms because they can create or rather amplify the gaps or divisions depending on how the access and use is distributed among the people. This connection is important to comment on with the aim to reveal the opportunities of inclusive digital development in Pakistan. In this contribution, this research explicates how individuals comprehend and use the digital media considering the asymmetrical access and how the digital divide can be minimized by examining the obstacles and the opportunities that can be utilized in bridging the digital divide.

**Main Objectives**

- To investigate the magnitude of digital divide in Pakistan in relation to access, use and cost.
- To examine how media plays out to widen or strengthen the digital divide.
- To determine the implication of the digital divide on education, employment, and social equality.
- To determine issues and prospects to decrease the digital divide by policy and the media initiative.

**Problem Statement**

Although both mobile and internet penetration has grown very fast, Pakistan has maintained a high level of digital divide that not only limits access to opportunity but also strengthens social disparities. Even now, such a significant part of the population, especially in rural regions and marginalized communities, is not actively engaged in the digital economy due to such obstacles as lack of appropriate infrastructure, expensive costs, and

lack of digital literacy. With the aid of media platforms, one can fill these gaps by offering available information and channels of interaction. Nevertheless, the lack of access to digital media equally poses a threat to increasing the existing disparities. The magnitude of the divide and the contribution of the media to access and awareness are thus of importance in efforts to create an inclusive approach to promote equity in education, employment, and social engagement.

## Literature Review

### *The Concept of the Digital Divide*

The digital divide is largely seen as the difference between the individuals who are able to get access to information and communication technologies and those that are not. It encompasses multiple dimensions, including physical access to devices, internet connectivity, affordability, and the skills necessary to use technology effectively (Mathrani et al., 2022). The digital divide, in the vast majority of cases, is multiplying and reproducing, depending on the pre-existing disparities of income, education, geography, gender, etc. Understanding the digital divide requires attention not only to hardware and infrastructure but also to digital literacy and the ability to translate access into meaningful outcomes (Soomro et al., 2020).

### *Global Perspectives on the Digital Divide*

Globally, the digital divide has been studied extensively in both developed and developing countries (Aziz et al., 2020). In advanced economies, the divide often manifests in terms of digital literacy and the quality of usage, whereas in developing countries, the more pressing issues involve basic access and affordability (Ali et al., 2023). The international institutions demonstrate to it that the gap is that which needs to be bridged in order to attain sustainable development since the entry to the digital world has become a requirement in the landscape of the engagement in the modern economies and societies. Expanding connectivity is considered a driver of economic growth, social inclusion, and innovation (Mubarak & Nycyk, 2017).

### *The Digital Divide in Developing Countries*

In developing nations, challenges are compounded by weak infrastructure, low levels of literacy, and socio-economic disparities (Khan et al., 2022). The broadband availability is usually centralized in urban areas, and rural regions lack adequate coverage. Furthermore, devices and internet services cost relatively high as compared with average incomes, which limits adoption even more. Studies indicate that marginalized groups, particularly women and low-income populations, are disproportionately affected (Afshar & Shah, 2025). The gap in such situations is not merely technological, but also social, which is more broadly related to exclusion.

### *The Digital Divide in Pakistan*

The country of Pakistan is an important background to analyze the digital divide as it has a unique socio-economic and demographic background. While mobile penetration has increased significantly, broadband coverage remains uneven (Gu, 2021). Urban areas, especially the big cities, have superior infrastructure, but the rural areas have weak connectivity. Another hindrance is affordability in that several households cannot maintain a regular exposure to the internet. Gender disparities are pronounced, with women facing cultural and economic barriers to digital participation (Imtiaz et al., 2025). Education, employment, and civic engagement are consequences of this divide, as the country will not be able to utilize digital technologies to the full extent of their development.

### *Media and the Digital Divide*

One of the aspects that play a major role in information accessibility and reduction of knowledge gaps is media. Traditional media such as television and radio continue to reach large audiences in Pakistan, while digital media

platforms have become increasingly influential (Wang et al., 2020). Social media, in particular, has emerged as a primary source of news and information, especially among younger populations (Abbas et al., 2019). The media platform has the capability of closing the digital divide since it can effortlessly convey the accessible real-time information and communications among people of diverse categories. However, access is not balanced, and that is why, there is inequality in access to media benefits.

***Media as a Bridge***

In contexts where internet access is expanding, media platforms can help mitigate the effects of inequality by delivering information that supports education, employment, and civic participation (Giansanti & Veltro, 2021). Online learning resources and employment websites can serve as an example and help individuals to acquire their skills and open opportunities. News platforms can provide marginalized communities with a voice in political discourse (Islam et al., 2024). Social media has become a personal and social medium in Pakistan where Smartphones became the leading digital access. Such changes demonstrate that the media can play an important role and positively help in narrowing the digital divide.

***Media as a Barrier***

At the same time, media can exacerbate inequalities when access is uneven. Those without reliable connectivity or devices are excluded from the benefits of digital platforms (Ma, 2021). Moreover, issues of credibility and misinformation pose risks, particularly for individuals with low levels of digital literacy (Aditya et al., 2023). This inequality of the digital capabilities suggests that it can be possible that someone is uniquely better equipped to be a critical consumer of media content and other individuals may be less resistant to manipulation. As such media is not necessarily a healthy influence, but it is a factor of the greater picture of structural and social factors.

***Policy Interventions and Digital Literacy***

Affordability and digital literacy are one of the ways of bridging the digital divide, which is usually considered in the development of the infrastructure. Governments and international organizations emphasize the importance of expanding broadband access, reducing costs, and providing training programs to build digital skills (Kerras et al., 2022). Pakistan had experienced a certain level of advancement in striving towards the growth of mobile internet and utilizing digital education but it is not enough. Effective interventions require a holistic approach that addresses infrastructure, affordability, literacy, and equity simultaneously (Xiao et al., 2024). Media, dissemination of the educational knowledge, creation of awareness and inclusiveness is one of the aspects that can be important in such endeavors.

***Summary***

The literature emphasizes the fact that the digital divide is multifaceted as it is not merely an issue of access but also skills and usage. The area of focus of this dynamic lies in the media platforms that are potential bridge and barrier depending on the access and the literacy distribution. The digital divide is one of the issues that are to be considered in Pakistan to ensure that people are equal in terms of access to education, work and government. The media can play a significant role in this process and it is therefore a very crucial field of study.

**Significance of the Study**

The topic of the research is relevant because it is a significant issue which is being debated in the socio-economic development in Pakistan: the digital divide. Based on the position of media, the research exposes the way the information platforms can reduce or increase disparities. The research will give empirical data on the contribution of access, frequency of use and perceptions of media on education, employment and social inclusion. The

policy makers, the people working in and teaching the media can use the findings to know what interventions are most needed which in this instance are infrastructure development, affordability and digital literacy. Moreover, the study is one of the most recent academic works on the topic, digital inequality in developing contexts, as it contributes to a growing body of literature on the topic that can be applied to propose the policy in order to contribute to the inclusive digital transformation of the state and the world at large.

## Methodology

The research design used in this study was quantitative research design because the researchers aimed to explore the issue of digital divide in Pakistan and to determine how media can be used to shape access to information, education, and employment opportunities. Quantitative method has been chosen due to the fact that it is the way to objectively measure and statistically interpret trends and perceptions in a large population to guarantee that the results will be reliable and comparable.

### *Research Design*

Primary data collection was done by a structured close-ended questionnaire, a descriptive survey method. This method was considered suitable because the system could collect uniform answers of a wide range of respondents. The design helped to identify the most important trends, differences, and patterns concerning the use of media and the accessibility of digital resources through the prism of demographic groups.

### *Population and Sample Size*

The population to be targeted in this study included those who lived in different parts of Pakistan and had different demographics in terms of age, gender, education, and working status. To record differences in access and usage patterns, both urban and rural respondents were selected as sample. The respondents were sampled on a purposive and convenience basis; hence, a total of 455 respondents were used in the survey. This was a sufficient sample to guarantee the statistical validity and applicability of the results of the study since the study was quite comprehensive and the digital environment of Pakistan had a high degree of heterogeneity.

### *Instrument Design*

A structured close-ended questionnaire was the primary data collection tool that was split into various sections. The demographic data including gender, age, education level, and the employment status were collected in the first part. The following sections were about how often the respondents access the internet, their access device, whether they depend on the media platform, and how the respondents view the role of media in either closing or increasing digital divide. The ratings were done on a five-point Likert scale with Strongly Disagree (1) and Strongly Agree (5) as the two extremes. This scaling approach made it possible to quantify subjective attitudes and perceptions, thereafter, compare them and carry out statistical analysis. Professional researchers in communication and media related matters have tested the instrument to ascertain that it is clear, valid, and relevant to the objectives of the research.

### *Data Collection Procedure*

The data were gathered electronically and face to face during the months of January to March 2025. The invited respondents were distributed in the following channels online using email invitations and the use of social networks and face-to-face networks at the university and workplace to have a diverse group of respondents. Ethics issues were observed to the letter: the participants were told the aim of the research, guaranteed confidentiality and were free to leave any time. No personal identifiable information was gathered.

### *Data Analysis Techniques*

The data collected were coded and analyzed with the help of descriptive statistical methods such as

frequencies and percentages in order to describe the most important demographic and perceptual variables. The purpose of the data analysis was to find differences in access to the digital environment, the frequency of its use, and dependency on various media. Tables and figures were created to demonstrate the trends of the access to credible information, media dependency, and the view of media role in digital inclusion contribution.

Another test that was made through the analysis was the degree of agreement that the respondents had regarding the crucial variables that included the problem of the digital divide and its impact on education, employment and social equality. The Likert-scale questions were taken into consideration so as to establish proportional distributions and focus on consistency and inconsistency in the subgroups of the demographics. This was a good strategy that offered a perfect image of the level and the extent of the digital divide in Pakistan.

***Ethical Considerations***

The study was carried out on the basis of the principles of the ethical research which assumed the voluntary nature of the involvement, the confidentiality and safety of the information. The subjects were also made aware of the study objective and gave their consent to partake in the research under anonymity. All the data were utilized in an academic manner and no information that was vulnerable or disclosive was gathered.

***Summary***

To sum up, it can be stated that the methodology used in the given study was considered to offer a consistent and quantitative ground of researching the issue of Pakistani digital divide. The key tendencies and correlations between media access, use, and digital inequality could be outlined due to the descriptive survey techniques with the help of non-nominal measurement devices and the thorough processing of the information. Such an approach to methodology led to the fact that the findings of the analysis section are not only statistically valid but also reflect the socio-digital situation in the large picture in Pakistan.



**Results and Discussions**

**Table 1.** Demographic Characteristics of Respondents

| Variable | Category | Frequency | Percentage (%) |
|---|---|---|---|
| **Gender** | Male | 260 | 57.1 |
| | Female | 195 | 42.9 |
| **Age Group** | 18–25 years | 120 | 26.4 |
| | 26–35 years | 140 | 30.8 |
| | 36–45 years | 95 | 20.9 |
| | 46–55 years | 60 | 13.2 |
| | 56 years and above | 40 | 8.8 |
| **Employment Status** | Student | 130 | 28.6 |

| | | | |
|---|---|---|---|
| | Employed | 190 | 41.8 |
| | Self-employed | 60 | 13.2 |
| | Unemployed | 50 | 11.0 |
| | Other | 25 | 5.5 |
| **Internet Access at Home** | Yes | 360 | 79.1 |
| | No | 95 | 20.9 |

Table 1 provides the demographic characteristics of the respondents. The results show that the majority of the respondents were male (57.1%), though the respondents were 42.9% female, which indicates that the gender representation is quite equal with a slight majority of males. The age distribution of the respondents indicated that the majority of respondents were aged between 2635 years (30.8%), next were those aged between 1825 years (26.4%), thus showing a population of mostly young and working population.

In terms of employment, 41.8% of the respondents were working, 28.6% of the respondents were students, and 13.2% of the respondents were self-employed, which means that the work force and the academic sector were well represented. A smaller portion comprised unemployed individuals (11.0%) and others (5.5%). Furthermore, a significant majority (79.1%) reported having internet access at home, whereas 20.9% did not, highlighting a strong digital presence among the participants, which supports the feasibility of AI-driven or technology-based initiatives in the context of this study.

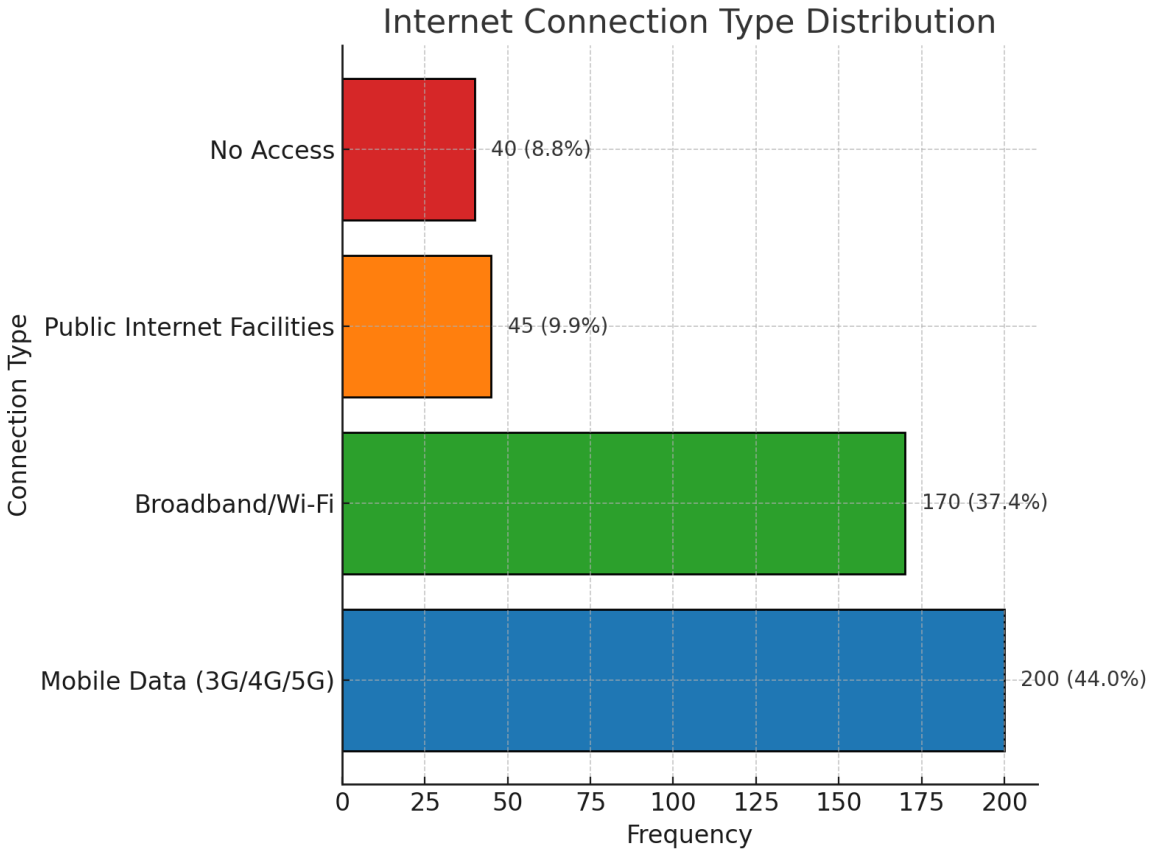


***Figure 1:*** Internet Connection Type Distribution

The data in Figure 1 illustrates the types of internet connections used by respondents. The majority (44.0%) rely on mobile data services such as 3G, 4G, or 5G for internet access, indicating widespread dependence on mobile networks. Broadband or Wi-Fi connections are used by 37.4% of participants, reflecting a considerable level of home or institutional connectivity. A smaller segment (9.9%) accesses the internet through public facilities, while 8.8% reported having no access at all. This distribution suggests that although most respondents have reliable internet connectivity, a noticeable portion still faces limited access, which may influence the effectiveness of digital and AI-based library resource initiatives in Pakistan.

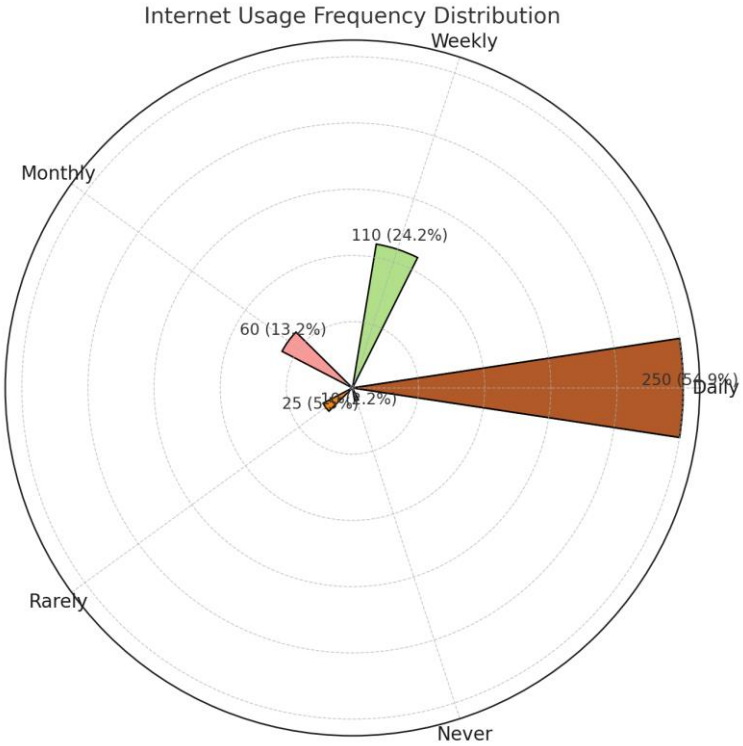


***Figure 2:*** Internet Usage Frequency

The data in Figure 2 reveals that a significant majority of respondents (54.9%) use the internet on a daily basis, indicating high levels of digital engagement and technological familiarity. Weekly users account for 24.2%, while 13.2% reported using the internet on a monthly basis. A smaller proportion use it rarely (5.5%) or never (2.2%). These findings demonstrate that most participants are frequent internet users, reflecting a strong potential for adopting and interacting with AI-driven digital platforms, particularly within library and educational contexts in Pakistan.

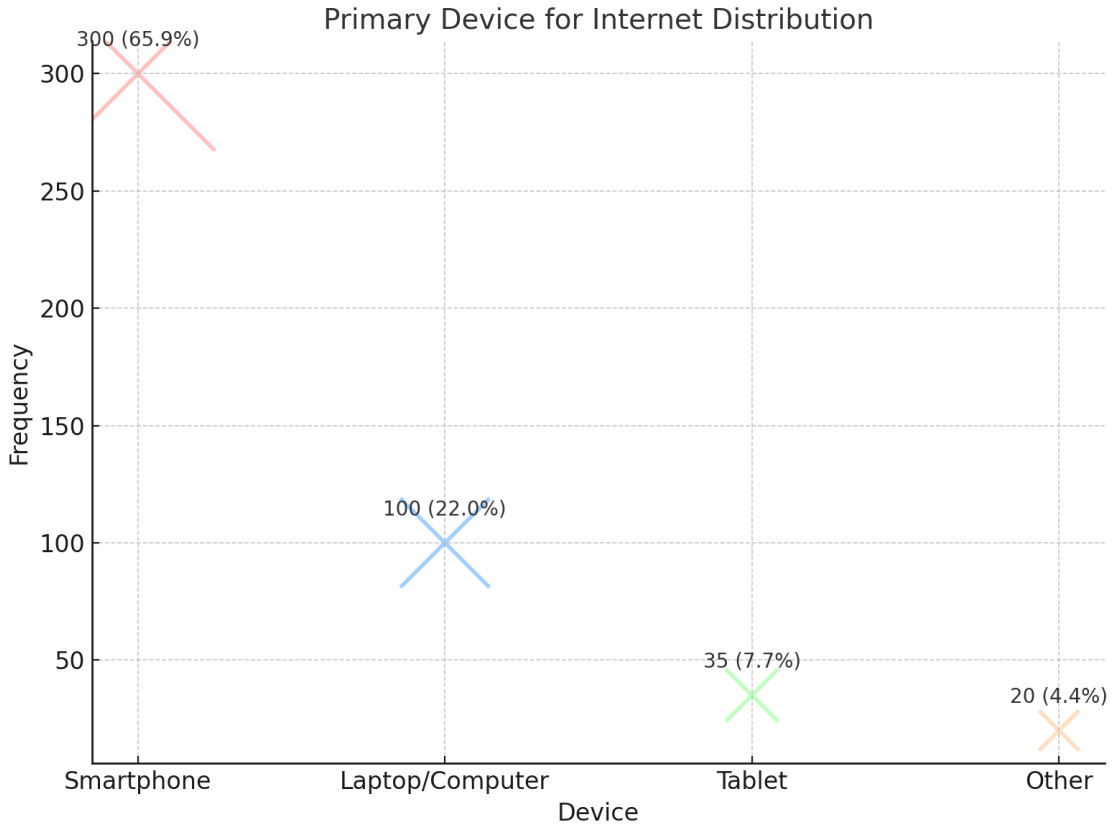


***Figure 3:*** Primary Device for Internet

Figure 3 presents data on the primary devices respondents use to access the internet. The majority (65.9%) reported using smartphones, highlighting the dominance of mobile technology as the main gateway to online resources. Laptops or computers were the second most common devices (22.0%), followed by tablets (7.7%) and other devices (4.4%). This pattern indicates that mobile-based platforms are the most accessible and preferred medium for internet use in Pakistan, underscoring the importance of optimizing AI-enhanced library resources and digital services for mobile compatibility and ease of use.

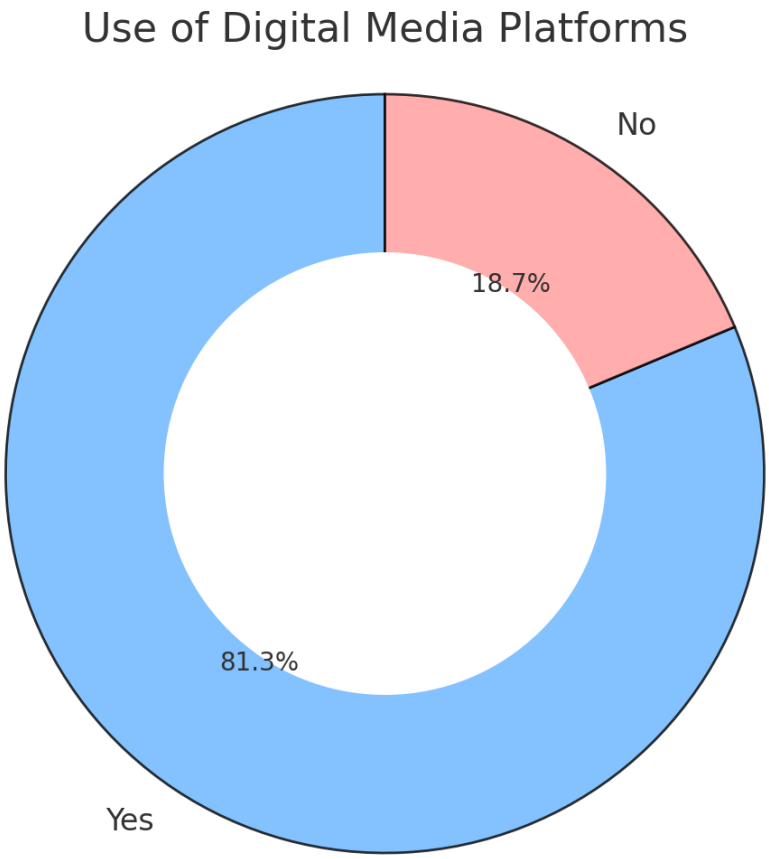


***Figure 4:*** Use of Digital Media Platforms

Figure 4 illustrates respondents' engagement with digital media platforms. A substantial majority (81.3%) reported using digital media, while only 18.7% indicated that they do not. This high level of digital media utilization reflects strong familiarity with online environments, suggesting that most respondents are well-acquainted with digital tools and platforms. Such engagement indicates a favorable context for integrating Artificial Intelligence into library systems in Pakistan, as users are already accustomed to digital interactions and technology-driven information access.

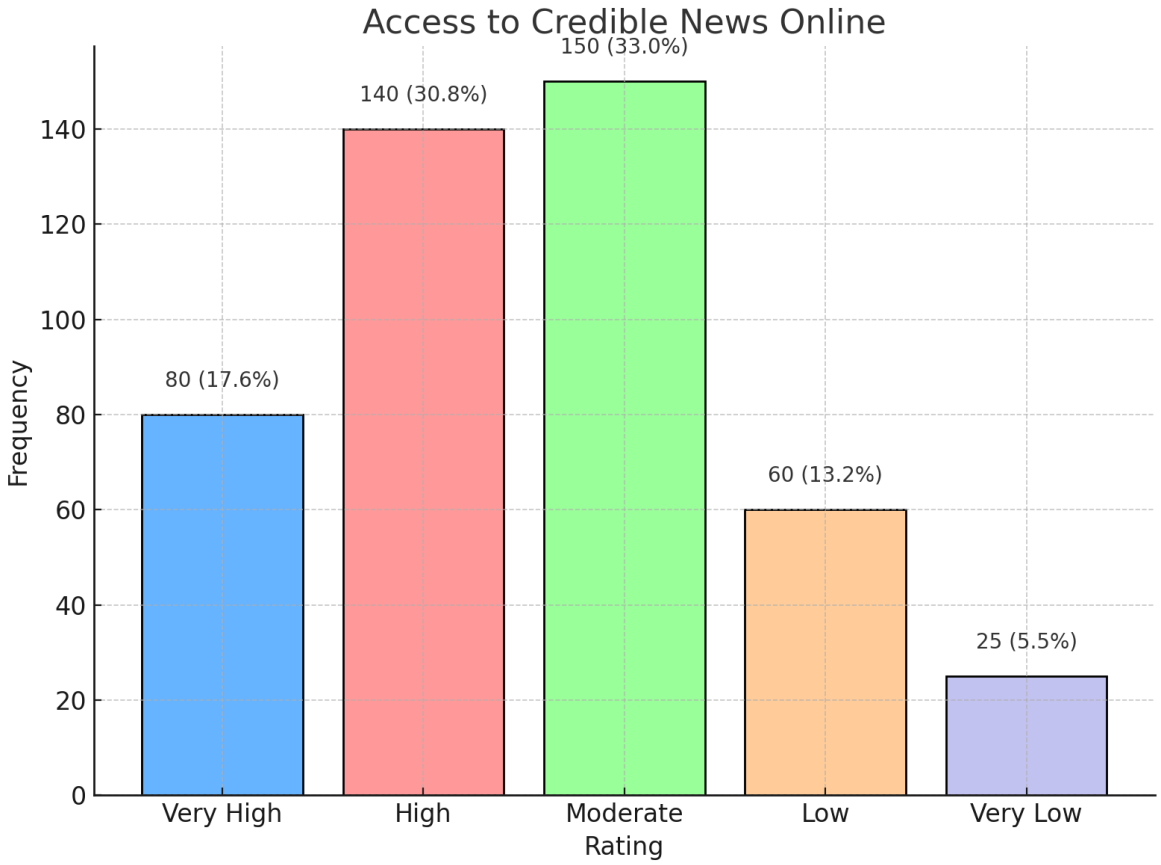


***Figure 5:*** Access to Credible News Sources Online

Figure 5 presents respondents' perceptions regarding their access to credible news sources online. The largest group (33.0%) rated their access as *moderate*, followed by 30.8% who perceived it as *high* and 17.6% who considered it *very high*. Conversely, 13.2% rated their access as *low* and 5.5% as *very low*. Overall, these findings indicate that while a majority of respondents experience a reasonable to high level of access to credible online information, a notable portion still encounters challenges in discerning or obtaining trustworthy digital content. This variation underscores the importance of enhancing digital literacy and credibility verification mechanisms, particularly within AI-assisted information and library systems in Pakistan.

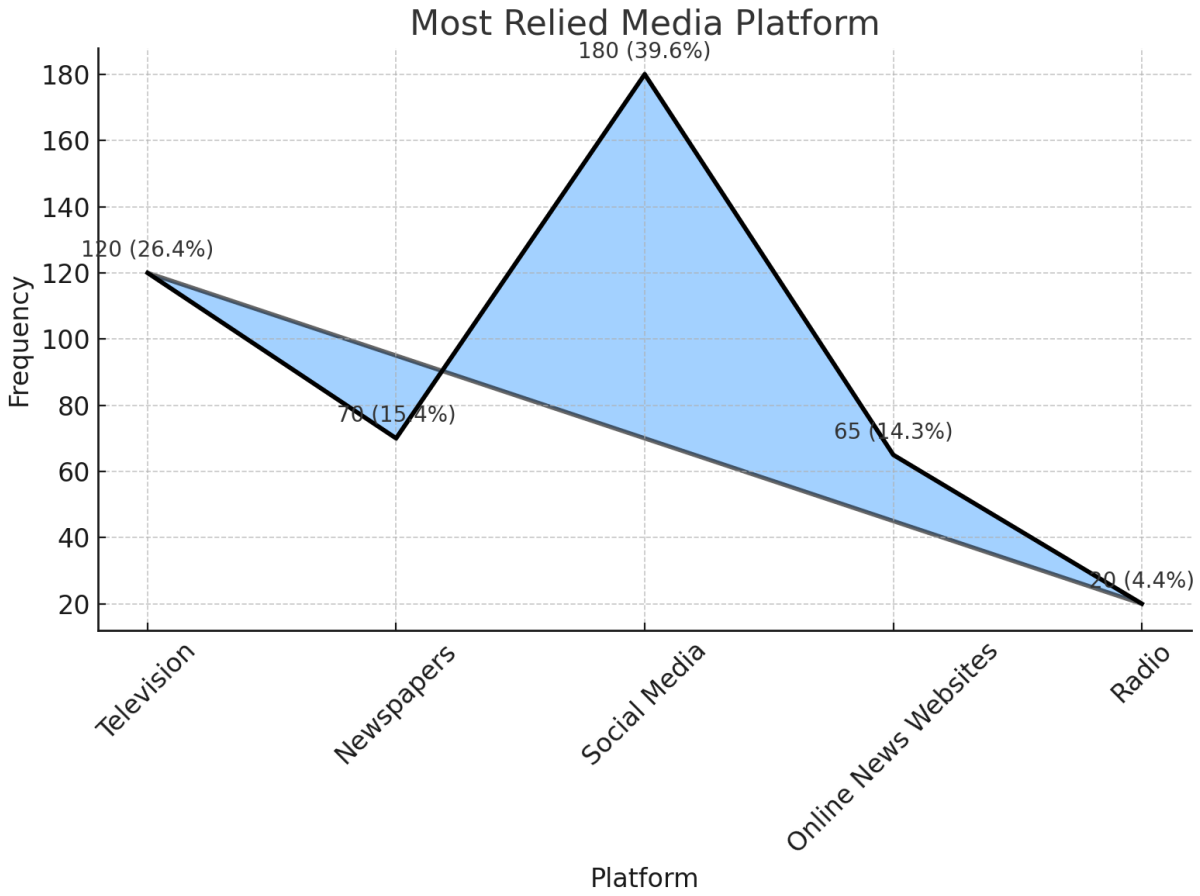


***Figure 6:*** Most Relied Media Platform for Information

Figure 6 illustrates the primary media platforms respondents rely on for information. The majority (39.6%) identified social media as their most trusted source, indicating its dominant role in contemporary information consumption. Television followed at 26.4%, while newspapers (15.4%) and online news websites (14.3%) were moderately preferred. Radio was the least relied upon medium (4.4%). These results show that there is a definite trend to digital and interactive media and the growing impact of online platforms in the development of the awareness of people. Applying this trend to the context of Pakistan, one can say that libraries and learning institutions should take advantage of AI and social media integration to provide increased access to credible and current information sources.

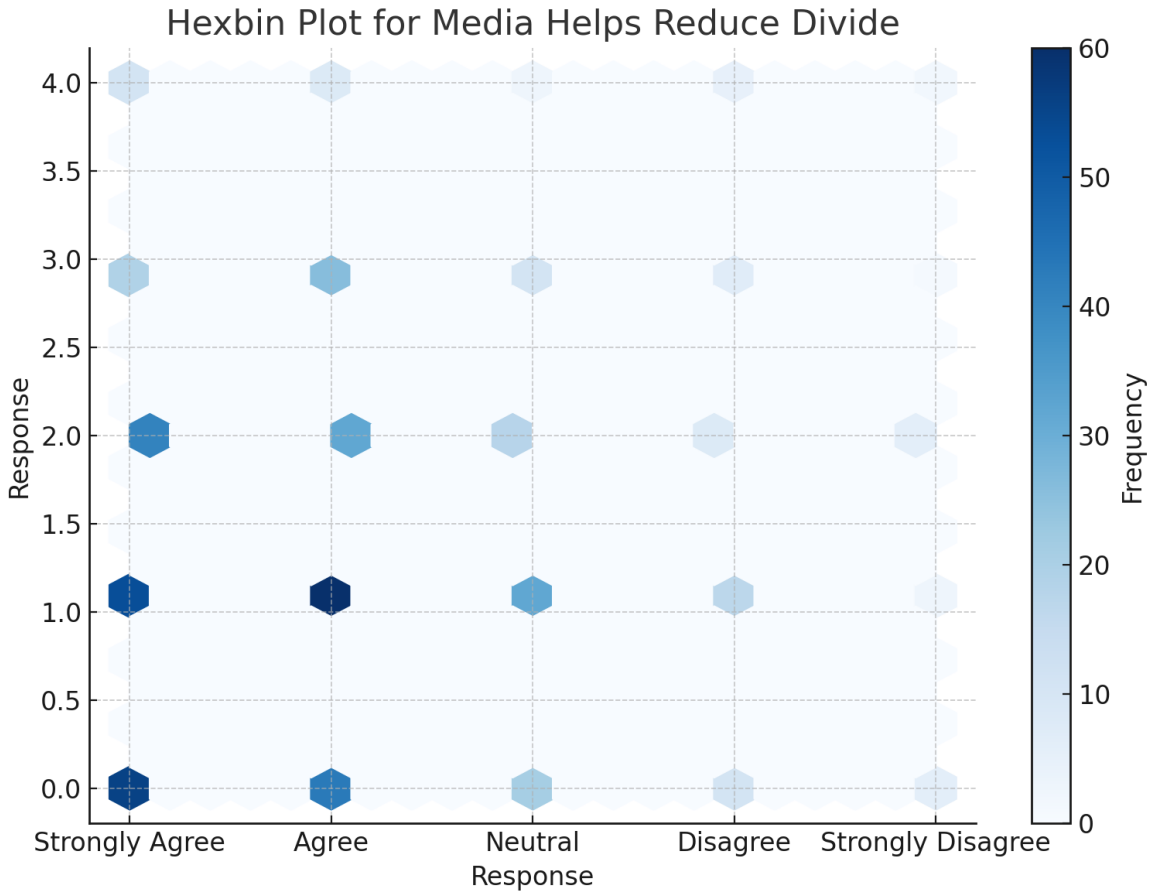


***Figure 7:*** Media Helps Reduce Divide

The perceptions of the respondents on the role of media in bridging the information divide are depicted in Figure 7. Most of them had positive perceptions with 35.2% and 30.8% agreeing and strongly agreeing that media contributes towards filling informational gaps among various social groups. In the meantime, 17.6% were neutral, a smaller percentage disagreed (11%) or strongly disagreed (5.5%). Such outcomes indicate that the majority of the participants are aware of media, especially digital media, as an important instrument towards funding information accessibility and inclusion. The perception, in the situation in Pakistan, promotes the need to use

AI-improved media and library systems to reduce the digital and knowledge gap even more.

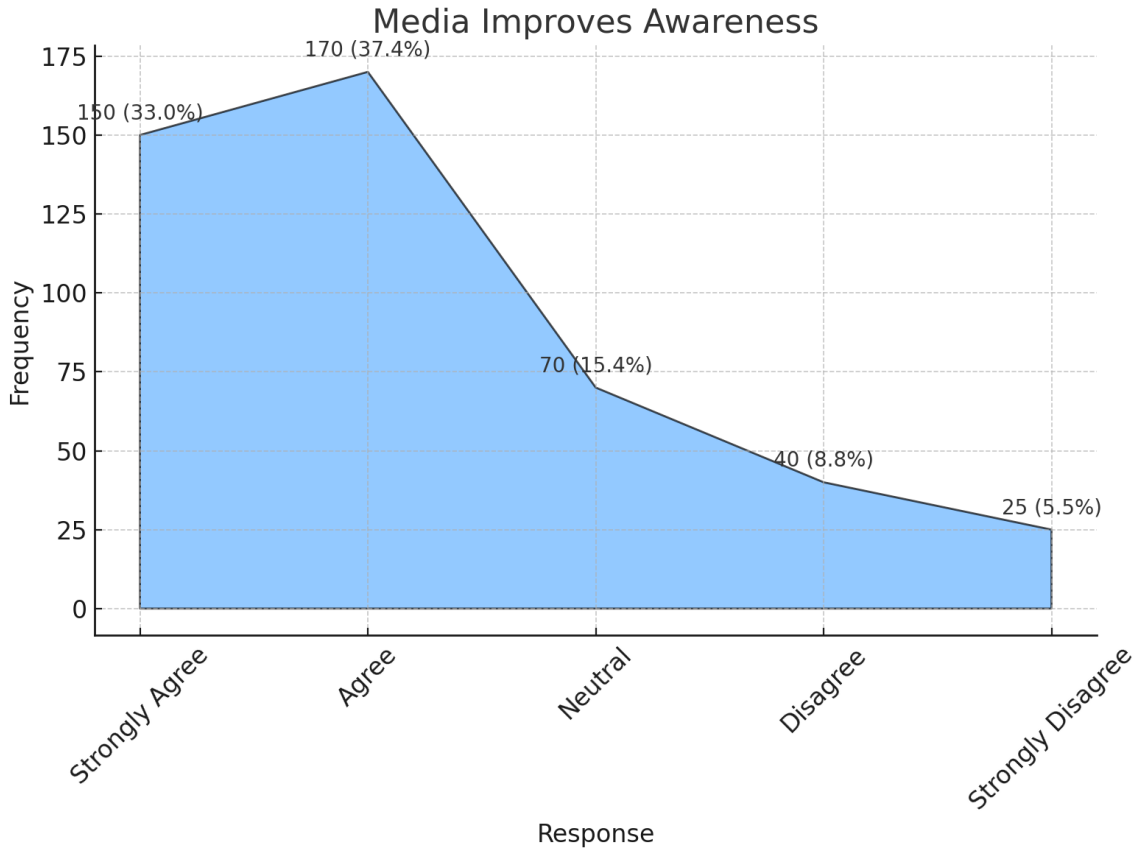


***Figure 8:*** Perception of Media's Role in Improving Public Awareness

Figure 8 presents respondents' views on how media contributes to improving public awareness. A significant majority expressed positive perceptions, with 37.4% agreeing and 33% strongly agreeing that media plays a vital role in enhancing awareness and knowledge dissemination. Meanwhile, 15.4% remained neutral, and smaller proportions disagreed (8.8%) or strongly disagreed (5.5%). These findings indicate that most respondents acknowledge the media's strong influence in shaping public understanding and information literacy. In Pakistan's context, this underscores the potential of AI-driven media tools and digital library systems to further expand informed engagement and awareness across diverse audiences.

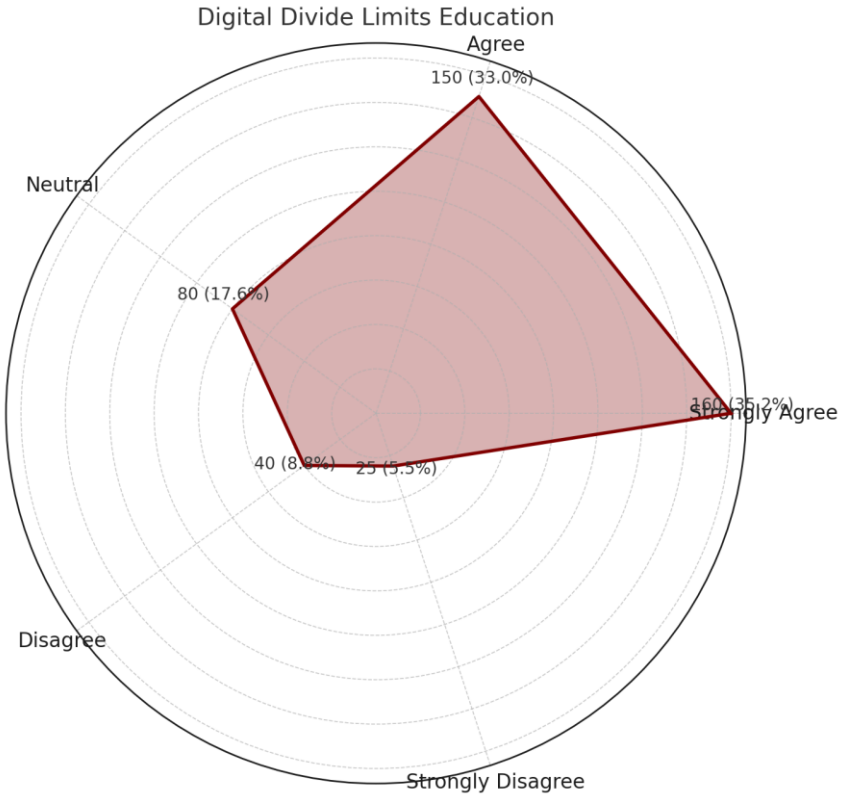


***Figure 9:*** Perception of the Digital Divide as a Limiting Factor in Education

Figure 9 depicts the perception of respondents regarding the impact of digital divide on the opportunities in terms of education. It was widely recognized as having a negative effect with 35.2% strongly agreeing and 33.0% agreeing that limited access to digital access impedes education. There is 17.6% that had no opinion and the smaller broken down into the disagreed (8.8%), and strongly disagreed (5.5%). These results have demonstrated the overall understanding that disparity in access to technology is still a stand in the way of equitable learning in Pakistan. The findings help emphasize the urgent need in the policies and AI-enhanced educational courses that will narrow the digital gap and will result in the comprehensive availability of learning resources.

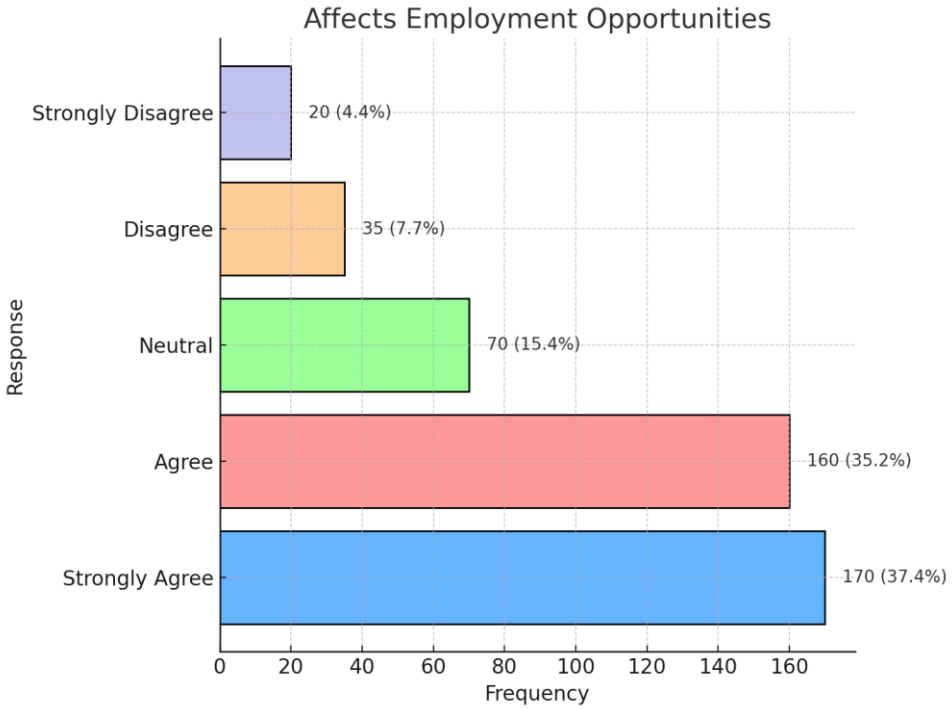


***Figure 10:*** Perception of the Digital Divide's Impact on Employment Opportunities

The Figure 10 shows the reaction of the respondents on the effect of the digital divide on the employment opportunities. Most of them (63.62%) confirmed it with 37.4%just agreeing with it and 35.2% agreeing that limited access to digital has a negative impact on employment opportunities. Meanwhile, a 15.4% was neutral and not such percentages differed (7.7% and strongly (4.4%). These results show that there are a lot of agreements that the digital divide becomes a great limitation to access of people to jobs in Pakistan. This indicates the necessity to grow digital inclusions and apply AI-based skill development initiatives to boost the improvement of workforce preparation and employability in the digital economy.

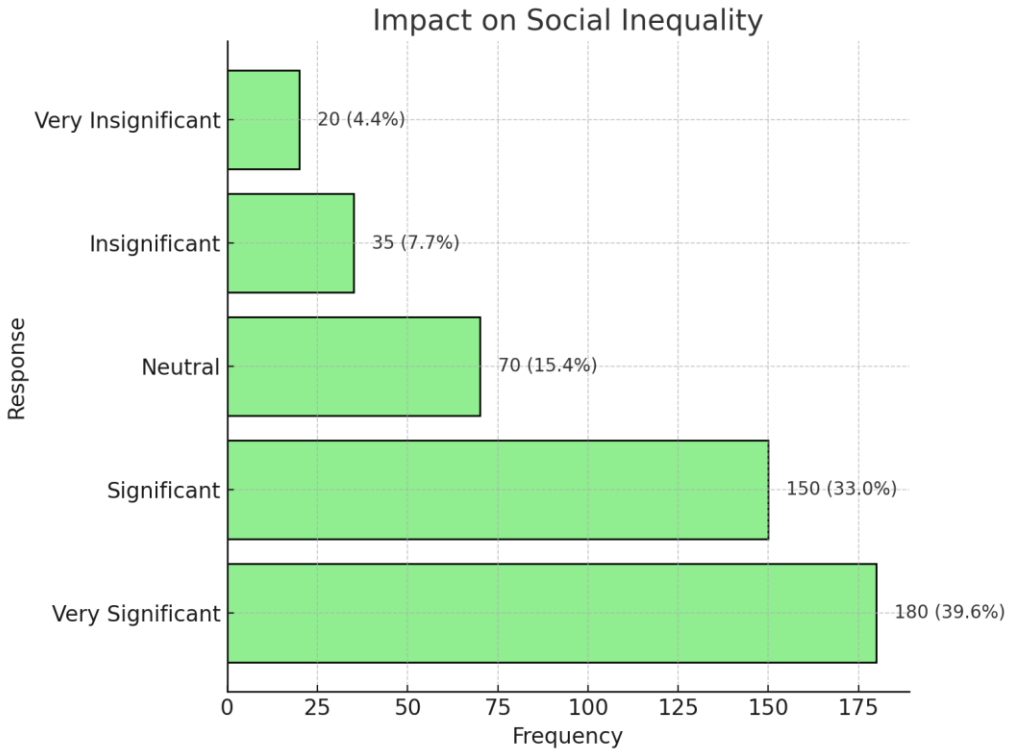


***Figure 11:*** Impact on Social Inequality

Figure 11 shows the perception of the respondents about how the digital divide has contributed to social inequality. Most people perceived the impact to be significant with 39.6% rating it as very significant and 33% rating it as significant, reflecting good awareness of the role of the divide in increasing disparities in the society. 15.4% were neutral with the remaining smaller groups rating it as insignificant (7.7%) and very insignificant (4.4%). In general, the results indicate a general agreement about the idea that the disparity in access to digital resources increases social inequality in Pakistan. This highlights the importance of inclusive digital transformation policies and AI-based programs to support the fair access of information and opportunities to all layers of society.

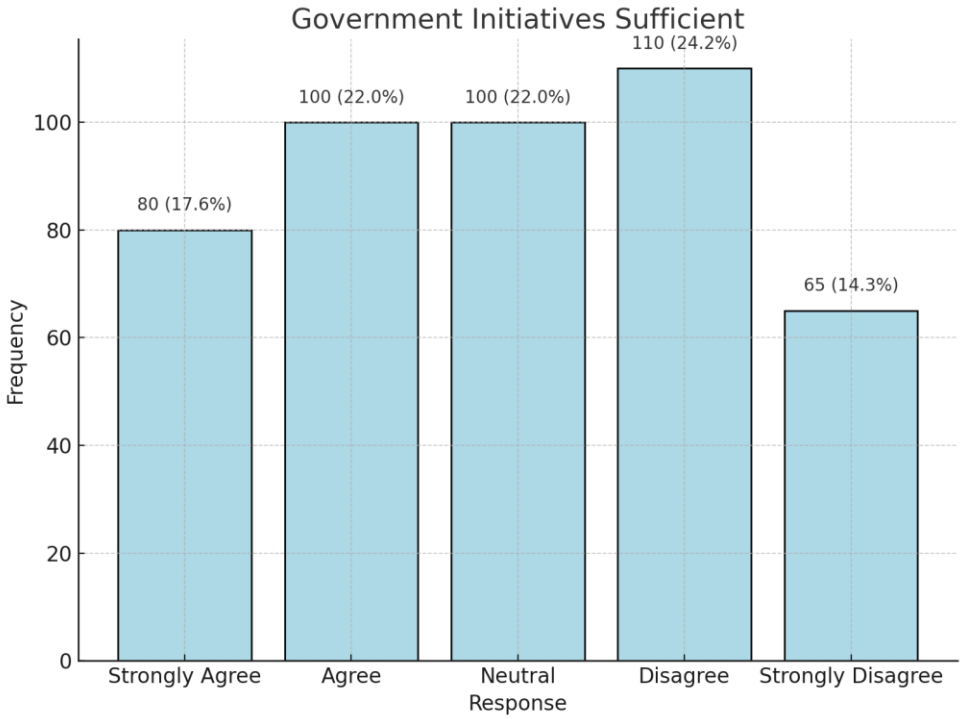


***Figure 12:*** Government Initiatives Sufficient

Figure 12 shows the perceptions of the respondents on government efforts to minimize the digital divide as sufficient or not. There are a mixed perception of the responses as 22.0% and 17.6% indicate that there is agreement and strongly agree that current initiatives are adequate. Nevertheless, a more significant portion of respondents had non-believing views as 24.2% did not agree and thus, 14.3% did not agree strongly, 22.0% were neutral. These results indicate that despite the respondent perception of the efforts of the government, most of them see them as insufficient or mediocre. Applied to the situation in Pakistan, this reveals the necessity of more robust and more inclusive digital policies and AI-based development programs to achieve the fairness of access to technology and information resources.

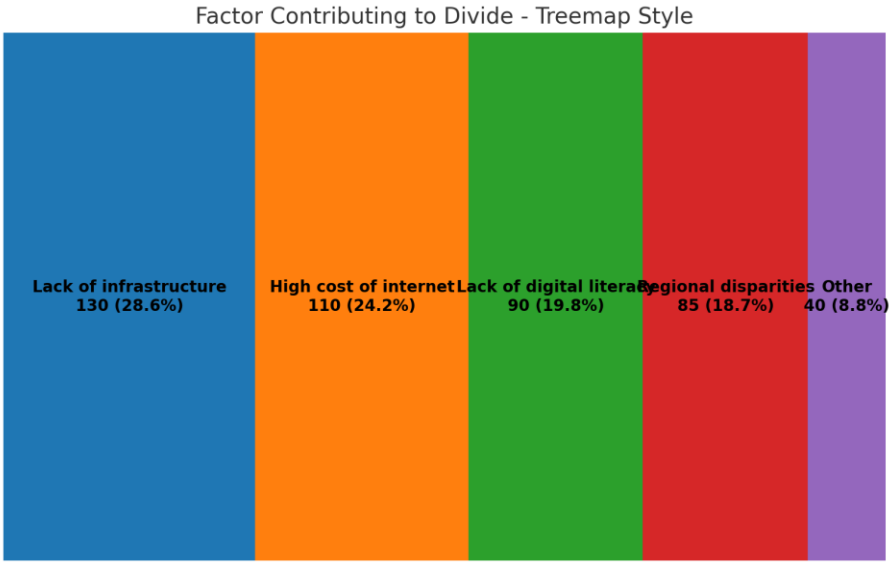


***Figure 13:*** Factors Contributing to the Digital Divide

Figure 13 identifies the most significant aspects that were seen to be causing the digital divide. The most mentioned reason was the lack of infrastructure (28.6%), the high price of internet services (24.2%) and the absence of digital literacy (19.8%). Other reasons were also found with 18.7% of respondents identifying the regional disparities and 8.8% identifying other reasons. These results show that the main reason of digital inequality in Pakistan is structural and economic barriers. These problems can be solved by providing better technological infrastructure, cheaper connectivity, and extensive programs on digital literacy which are facilitated by AI-based educational and policy interventions and can be a crucial step to eliminating the divide.

### *Discussion*

The results of the present research are useful in understanding the digital divide and its consequences in Pakistan with specific references to the media role in creating access to information and opportunities. Though there is balanced participation as the demographic distribution shows that the number of male respondents is slightly more than the number of female respondents, in terms of access, it follows the gendered patterns of access that is evident in usage of technology in developing situations. The age profile with the majority of the population falling within the range of 18 and 35 years is an indication that the younger demographics are more active in the digital technologies and this has been in line with the international trends in digital uptake. The employment status showed that the majority of respondents are employed and students, which reflects that it is the working environment and the academic environment that promote more reliance on digital media platforms.

Technological access is one of the characteristics of the digital divide. The survey results show that the connectivity penetration in Pakistan is high, as 79.1 percent of the respondents said that they have internet access at home. However, the 20.9% without home access highlights persistent inequalities, especially in rural and underserved areas. Mobile data emerged as the most widely used connection type, emphasizing the importance of affordable and accessible mobile services in bridging the gap. Smartphone usage as the primary device (65.9%) further illustrates the dominance of mobile-first digital behavior, while reliance on laptops, tablets, or shared facilities was comparatively limited. Frequency of use also

underscored the deep integration of technology into daily life, with more than half of the respondents accessing the internet daily. Nevertheless, a small segment reported rare or no usage, pointing to structural or socio-economic barriers.

This is the role played by the media in bridging the gap based on the preferences and the perceptions of the respondents. Social media became the most trusted source of information, and the second most trusted source of information was the television, as the information is becoming digitalized and interactive. The media platforms also help in decreasing the divide and enhancing social, political and economic issues awareness as a considerable percentage of respondents agreed. This observation depicts how the media can be informative as well as democratizing in the sense that it can make the level of participation in the discussion of the country more involved. In the meantime, mean scores of worries about credibility suggest that there is the need to enhance digital literacy programs that would help users be more critical in evaluating online information.

The long-term consequences of the digital divide were strongly endorsed. Majority of the interviewees discovered that without access, chances of getting education and job opportunities that would help achieve the notion that digital disparity is one of the factors contributing to variation in socio-economic outcomes. The views on this matter about government action were both favorable and unfavorable as most of the respondents expressed that the current measures are not enough. This underlines the need to have a more elaborate collection of policies on infrastructure growth, cost cutting, and digital literacy. The most prevalent reasons indicated in the form of poor infrastructure and high cost of the internet confirm the structural barriers to even accessibility to digital devices.

On the whole, the discussion shows a paradox of truth on the issue: despite the fact that in Pakistan it has gone a long way in relation to the access to digital tools and media platform, it leaves huge gaps. The policy, technology, and education activities should be combined to eliminate this gap, therefore, such that access to digital resources could be turned into meaningful opportunities that will support all strata of society.

## Conclusion and Recommendations

The discussions of this paper highlight the fact that the digital divide in Pakistan exist, even though there is a significant improvement in the adoption of mobile and internet. The results indicate that most of the people who have access to the internet and frequently use the digital platforms, but a significant number of the population are left out as a result of infrastructural, economic and social conditions. Mobile devices, especially smartphones dominate the market, which puts a major emphasis on mobile technology, but the affordability is brought out as a challenge by the costly data service offerings. Moreover, access disparities between urban and rural populations and across socio-economic groups continue to hinder equitable participation in digital spaces.

Media platforms emerged as crucial in shaping the experience of the digital divide. Social media and online news websites are increasingly relied upon for information, especially among younger populations, indicating a shift toward digital-first media consumption. At the same time, traditional media such as television and newspapers continue to play an important role, particularly for those with limited digital access. The findings confirm that media has the potential to bridge information gaps and foster awareness of social, political, and economic issues. However, the benefits of media are not uniformly distributed. Those excluded from digital platforms remain disadvantaged, while even among users, varying levels of digital literacy affect the quality of engagement.

The implications for education and employment are particularly significant. The study demonstrates that limited access to digital tools restricts opportunities for online learning, skill

development, and participation in modern labor markets. This divide not only affects individual prospects but also has broader consequences for national development by constraining the capacity of the workforce to compete in a digitally driven global economy. Similarly, unequal access undermines civic participation, with marginalized groups less able to engage in political discourse or access digital government services.

The many efforts by the government to bridge the digital gap were seen by most respondents as inadequate. Although the current activities aimed at increasing mobile coverage, as well as enhancing digital education, are recognized, more profound and comprehensive policies are required. In order to bridge the gap, it is necessary to go beyond the idea of the expanded infrastructure and implement the concept of affordability, specific subsidies, and the prevalence of digital literacy initiatives. Notably, the strategies should be gender sensitive so that women, especially in the rural and conservative society are not left out.

Resting on these findings, a number of proposals are given. To begin with, it is necessary to invest in digital infrastructure, making the focus on rural and underserved areas to decrease geographic disparities. Second, affordability needs to be considered with the help of competition policies between the service providers and by lowering the price of accessing the internet. Third, digital literacy programs are expected to be integrated into the education systems and community efforts and they should equip individuals to not only access but also critically consume media content. Fourth, government-media-civil society organizations can be used to increase the coverage and effectiveness of publicity campaigns. Last but not least, there is need to increase accountability and monitoring of digital initiatives to measure the progress and to be inclusive.

To sum up, the digital divide in Pakistan is a challenge and an opportunity. The media platforms can play a leading role of diminishing or reinforcing inequalities based on the distribution of access and literacy. Pakistan could possibly use digital technologies to create equal access to education, employment, and civic engagement with the aim and approaches intended to be inclusive so that none of the groups will be left behind in the digital age.

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