

## Public-Private Collaboration to Overcome the Digital Divide in Digital Transformation of Government.

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### Abstract

*The objective of this article is to explore the issue of the digital divide and how we can bridge it to overcome the challenge of digital transformation. We will start by examining the key factors that contribute to the issue of the digital divide, which include economic factors, accessibility of infrastructure and technology, and also digital literacy. We will explore the strategies and initiatives that need to be implemented to address these challenges and promote digital inclusion. Based on our research, we have argued that bridging the digital divide is not only limited to social justice and equity but is also a key driver for achieving economic growth and innovation. We will focus on how important it is to ensure that every citizen can access digital services equally. Also, they should be trained with the skills to use it effectively. Public-private collaboration is essential for bridging the digital divide in government digital transformation. This study identifies key strategies and outcomes of such collaborations, emphasizing their role in enhancing digital access and service delivery. Findings underscore the importance of partnership models in fostering inclusive and effective digital governance. So, overall, this article will provide a comprehensive overview of the digital divide, its challenges, and how we can solve these problems to create opportunities that will add value to the country's progress.*

**Keywords:** Digital Divide, E-Government, Digital Transformation, Digital Inclusion, Digital Literacy

### 1. Introduction

In Today's world, we are seeing a rapidly evolving digital landscape in which technology has become integral to human lives. It completely revolutionizes how we communicate, work, and conduct our daily activities. However, with its benefits, we also get different types of challenges, and one of them is the unequal distribution of technology benefits among all the country's people. This is due to the lack of internet access and other essential technological tools faced by a significant portion of the country's population. This problem is commonly defined as the 'Digital Divide'[1]; it refers to the gap between people with access to technological services and those without access. This problem becomes a significant barrier to digital transformation

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efforts [2], and it is not limited to a particular sector; it is, across the board, a critical challenge for governments, businesses, and organizations. It is crucial for bridging the gap and overcoming the digital divide because, without it, access to digital tools and resources will be difficult for individual citizens and communities, and they will not be able to take advantage of the opportunities provided by E-government [3]. This digital exclusion is responsible for increasing existing inequalities, creating more differences between citizens, and hindering the country's potential growth. Also, recently, after the COVID-19 pandemic [4], the digital divide issue was further exposed. It highlighted how critical it is to bridge this gap because people face so many issues due to the inaccessibility of digital services. We know how the pandemic forced many businesses, schools, health care, and government services to shift online. Those citizens who are without access to the internet or digital devices find themselves at a significant disadvantage. The pandemic also widened the gap between people regarding digital skills and literacy because citizens with resources were better equipped to adapt to the new digital landscape. That is why, to address this issue, various initiatives should be launched to provide access to the Internet and digital tools; also, to bridge the digital divide [5] a multifaceted approach will be required to understand the primary root cause of it. This solution will involve creating connectivity infrastructure and promoting digital literacy and skills. Also, we have to understand that overcoming the digital divide [7] challenge will involve addressing the social, cultural, and economic factors that join together to contribute to this divide through language barriers, digital illiteracy, and lack of affordability. That is the reason the role of the [6] is very significant. The government will play a role in bridging the digital divide by developing policies and regulations that will promote digital inclusion, including providing funding for infrastructure development and educational training programs, as well as a public-private partnership will be needed to expand internet access to underserved areas. Therefore, overcoming the digital divide will be a complex task that requires a collaborative and multi-pronged approach; working together and taking a comprehensive approach can help us bridge this gap, ensuring that everyone can progress in the digital age. We will try to cover all the factors related to the article's challenges and share possible solutions for handling this problem in detail.

The objective of the script is to examine the importance of collaboration between the public and private sectors in addressing the digital divide in government digital transformation initiatives. It will delve into how partnerships between government entities and private sector stakeholders can utilize resources, expertise, and innovation to ensure equitable access to digital services and technologies. The discussion will shed light on the challenges underserved communities face in accessing government services online and the potential solutions that collaborative efforts can offer, such as developing infrastructure, training in digital skills, and outreach programs. Topics of discussion will include the role of public-private partnerships in addressing digital inequalities, successful examples of collaboration in government digital projects, the significance of inclusivity and accessibility in digital transformation strategies, and the necessary policy frameworks to promote effective collaboration. The main arguments will emphasize the importance of collective action in addressing the digital divide, the advantages of utilizing resources and expertise from the private sector, and the need for proactive measures to ensure that equity and social inclusion are prioritized in digital transformation efforts.

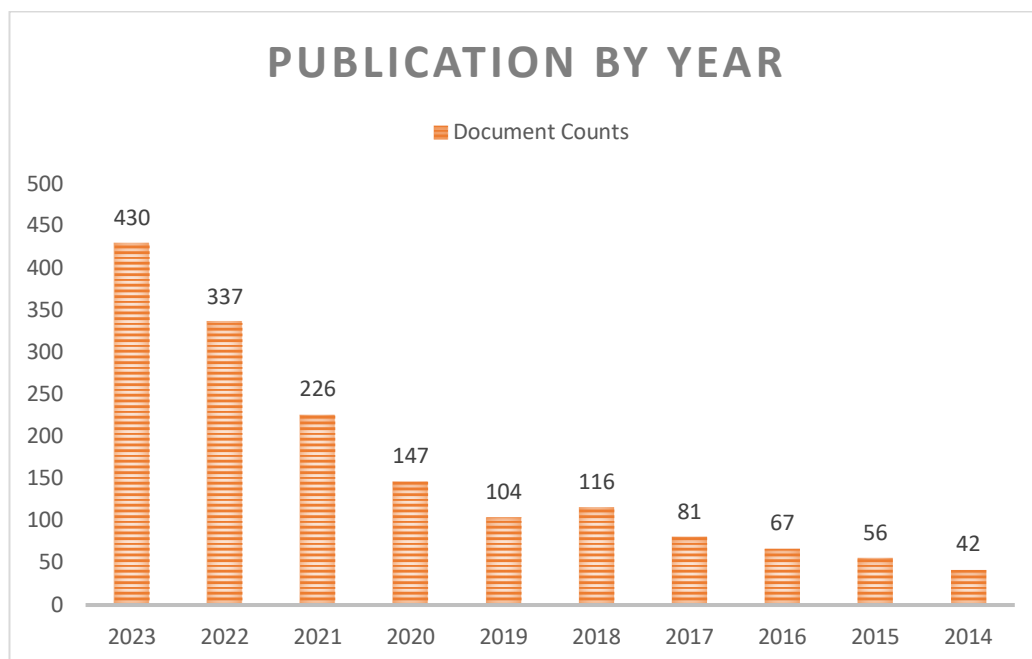
## 2. Literature Review

The digital divide has grown to be a significant obstacle that nations must now overcome to change their economies digitally successfully. The digital divide refers to the disparity between those who have access to and can successfully use digital technology and those who do not. This gap can obstruct organizations' efforts to become more digital, resulting in unequal access to information and digital literacy. This literature review looks at current studies on closing the digital divide for a successful digital transformation.

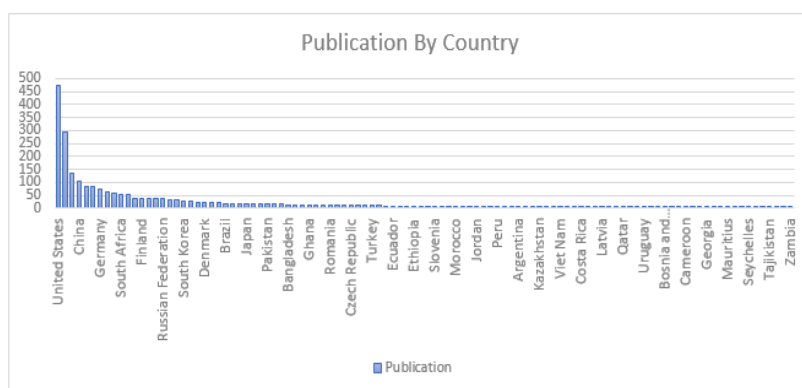
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[8] Talk about how closing the digital divide is crucial for achieving digital transformation. They examine companies' difficulties due to the digital divide and discuss solutions. The authors advise firms to prioritize increasing employee digital literacy and putting access to technology initiatives in place. They also suggest that the organization establish a digital culture to promote digital adoption. Similar to this, [9] look at how crucial digital knowledge and skills are for a successful digital transformation. They contend that for people and organizations to fully benefit from the opportunities provided by digital technology, they must possess the necessary digital skills. The authors contend that initiatives for teaching digital skills are essential to close the digital divide and advance digital literacy. [10] They examined the effect of digital literacy on the effectiveness of digital transformation in a study of small and medium-sized organizations (SMEs). According to their research, businesses are more likely to succeed in implementing digital transformation if they have higher levels of digital literacy. The authors advise businesses to prioritize teaching staff digital skills, especially for SMEs with little funding.

[11]'s investigation of the role of the government in bridging the digital divide for digital transformation is part of a larger body of research. They contend that through laws that guarantee fair access to technology and training in digital skills, the government can play a significant role in fostering digital inclusion. According to the authors, governments ought to support public-private sector cooperation in creating digital infrastructure that can aid in closing the digital divide. [12] examine how social media can help close the digital divide from a new angle. They talk about how social media could help underserved areas become more digitally literate and gain access to information. According to the authors, local governments can use social media platforms to offer training courses and instructional materials to close the digital divide. In addition, the effect of digital inclusion on organizational performance is examined by [13]. According to their research, businesses prioritizing digital inclusion do better financially and in terms of customer satisfaction than those not. The authors contend that measures like implementing user-friendly technology and educating staff members and clients on digital literacy can be used to achieve digital inclusion.



(Figure 1. Number of Publication done on the Topic Per Year)



(Figure 2. Number of Publication done on the Topic in Each Country)

### 2.1 Contributors to the Digital Divide

To begin, age, gender, income, and education of individuals or groups are vital contributors to the digital divide since they influence access to the internet and digital technologies. Several scientists discovered that the elderly, unemployed, low-income households and those without a higher degree of education are more likely to be excluded from digital transformation prospects in their study on the digital divide in Europe [14].

### 2.2 Government's Role in Bridging the Digital Divide

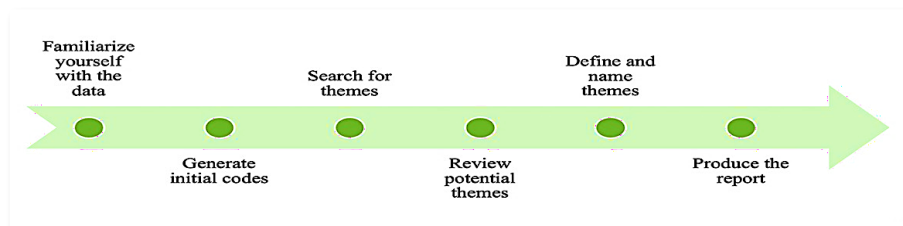
Second, governments may play an essential role in closing the digital divide by enacting laws and regulations encouraging digital inclusion. According to research conducted by [15], the Australian government's efforts to provide public internet access, digital literacy initiatives, and digital device subsidies significantly reduced the country's digital divide.

### 2.3 Public-Private Partnership to Overcome the Digital Divide

Finally, [16] [17] investigated the potential of public-private partnerships to bridge the digital divide. They found cross-sectoral partnerships that bring together governments, private companies, civil society organizations, and individuals were essential in reducing the digital divide. Their research indicates that such partnerships leverage the strengths of each sector to provide comprehensive solutions to digital inclusion.

## 3 Research Method

To thoroughly grasp the research problem, a 'Qualitative Method' of data collecting and analysis was selected for this study. This method approach is justified since it enables triangulation, which improves the study's validity and reliability. The obtained data will next be subjected to a 'Thematic analysis. To do this, the data must be categorized into functional groupings after being identified as having patterns and themes. The surface themes will be applied to thoroughly explain how the digital divide affects people's lives. We will start by thoroughly analyzing the literature on the digital divide and digital transformation. A thorough search of scholarly databases like Google Scholar, JSTOR, and Web of Science will be necessary to find pertinent studies, publications, and reports. The assessment of the literature will assist in identifying the major causes of the digital divide and the various initiatives that have been put out to close it.



(Figure 3. Describes the steps that make up thematic analysis in order.)

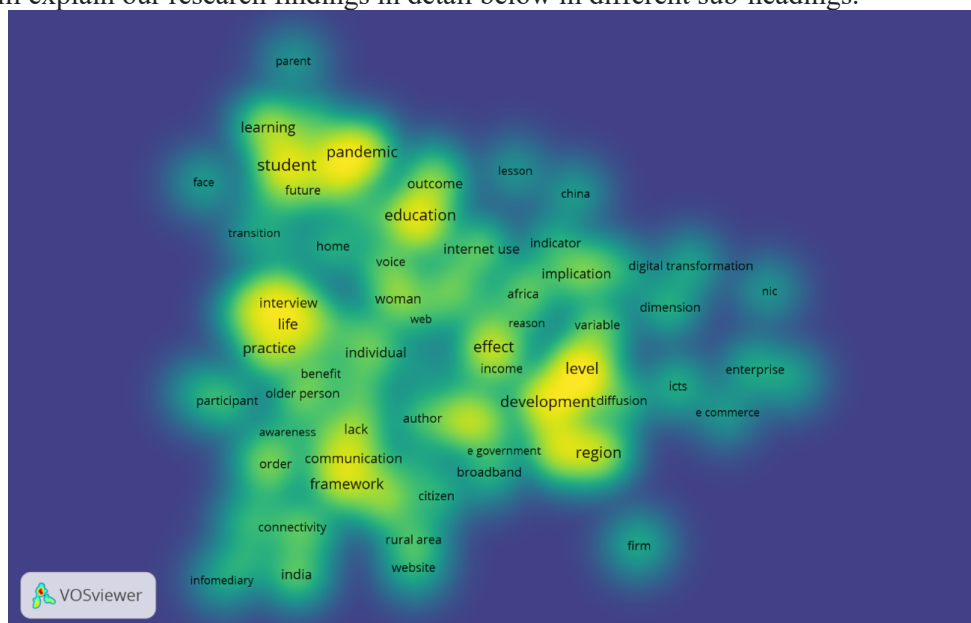
Collecting data to investigate "Public-Private Collaboration to Overcome the Digital Divide in Digital Transformation of Government" employs a comprehensive approach. Initially, qualitative techniques such as interviews, focus groups, and document analysis are utilized to gather insights from key stakeholders, including government officials, representatives from the private sector, and community leaders. This ensures a comprehensive comprehension of diverse viewpoints and experiences. After data collection, a thematic analysis identifies patterns, trends, and recurring ideas within the dataset. Through iterative coding and categorization, themes emerge that encompass the challenges, opportunities, and strategies relevant to public-private collaboration in bridging the digital divide in government transformations. For the literature review, we used Indirect citations. The keywords used and filters applied for searching data are as follows:

TITLE-ABS-KEY ("digital divide") AND ( LIMIT-TO ( OA , "all" ) ) AND ( LIMIT-TO ( PUBYEAR , 2023 ) OR LIMIT-TO ( PUBYEAR , 2022 ) OR LIMIT-TO ( PUBYEAR , 2021 ) OR LIMIT-TO ( PUBYEAR , 2020 ) OR LIMIT-TO ( PUBYEAR , 2019 ) OR LIMIT-TO ( PUBYEAR , 2018 ) OR LIMIT-TO ( PUBYEAR , 2017 ) OR LIMIT-TO ( PUBYEAR , 2016 ) OR LIMIT-TO ( PUBYEAR , 2015 ) OR LIMIT-TO ( PUBYEAR , 2014 ) OR LIMIT-TO ( PUBYEAR , 2013 ) ) AND ( LIMIT-TO ( DOCTYPE , "ar" ) OR LIMIT-TO ( DOCTYPE , "cp" ) ) AND ( LIMIT-TO ( LANGUAGE , "English" ) ) AND ( LIMIT-TO ( SUBJAREA , "SOCI" ) OR LIMIT-TO ( SUBJAREA , "COMP" ) ) AND ( LIMIT-TO ( SUBJAREA , "ARTS" ) OR LIMIT-TO ( SUBJAREA , "BUSI" ) OR LIMIT-TO ( SUBJAREA , "DECI" ) OR LIMIT-TO ( SUBJAREA , "ECON" ) )

We will be using Collaborative Learning Theory as a base for our research. This theory talks about individuals within a group (or groups) learning from one another through working together to solve a problem, finish a task, create a product, or share one's thinking to accomplish one of these goals.

#### 4 Results and Discussion

We will explain our research findings in detail below in different sub-headings.



(Figure 4. Main Theme Highlighted based on Density Analysis)

## **4.1 Reasons Behind Challenges Due to Digital Divide**

In this section, we will discuss some of the key reasons behind the challenges the digital divide poses.

### **4.1.1 Lack of Adaptation to Technological Advancements**

The lack of need for citizens to adapt to technological improvements can be a crucial impediment to bridging the gap and overcoming the digital divide in digital transformation. While technological innovations continue to transform different businesses and elements of our everyday lives, some citizens may need help to keep up with the rate of change owing to a lack of knowledge or resources. However, encouraging people to learn these abilities might be difficult if they do not perceive the necessity to adapt to technological changes. This lack of need can be caused by several factors, including the view that technology is irrelevant to their daily lives or that they are too elderly to master new skills.

### **4.1.2 Resistance to Change**

Resistance to change is a prevalent human trait, especially regarding technological improvements. Many residents may hesitate to adopt new digital technology for various reasons, including a lack of information, apprehension about change, or difficulties adapting to new ways of doing things. This resistance to change can be a substantial barrier to closing the digital divide, a fundamental component of digital transformation. The belief that digital technologies will replace human labor, resulting in job losses, is the source of opposition to change. This is understandable, but it is also important to realize that digital technology can offer new job opportunities while also improving the productivity and efficiency of existing ones.

### **4.1.3 Financial Resources Limitation**

Financial resources are one of the major problems impeding individuals' technological achievements, notably in bridging the gap and conquering the digital divide in digital transformation. For many individuals and families, especially those living in low-income households, acquiring and maintaining modern equipment such as laptops, tablets, smartphones, and a high-speed internet connection can be prohibitively expensive. Furthermore, more financial resources might be needed to allow the adoption of new and emerging technologies, such as smart home gadgets, wearable technology, and virtual reality tools, that can potentially improve people's quality of life. Individuals and groups with access to these technologies may stay caught up in the digital era, widening the digital gap.

### **4.1.4 Infrastructure and Connectivity Issue**

In today's fast-paced technology innovations, it is critical to bridge the digital gap. As access to technology continues to be unevenly spread across populations, infrastructure and connection difficulties pose substantial challenges to reaching this goal. Technological innovations necessitate a dependable and resilient digital infrastructure to serve the increased demand for connectivity. Bridging the digital divide is a moral as well as an economic obligation. The digital transition opens up new avenues for economic growth and development. We can ensure that all citizens can access the tools and skills they need to participate fully in the digital economy by addressing infrastructure and connection concerns and encouraging digital literacy.

### **4.1.5 Low Digital Literacy and Skills**

Technological breakthroughs in the contemporary digital transformation era have transformed how we live, work, and communicate with one another. However, due to inadequate digital literacy and skill, not all residents can benefit from these technological improvements equally. The digital divide is a significant barrier to closing the digital transformation gap. The inability to access, understand, and effectively use digital technologies is called low digital literacy and skills. This can be attributed to various causes, including a need for access to digital devices and internet connectivity, insufficient knowledge and training, and age-related constraints. As a result, many residents need help to participate fully in the digital economy, gain access to essential services, or interact with their communities.

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#### **4.1.6 Lack of Trust in Data Privacy and Security**

One of the key impediments to overcoming this gap is a need for more trust in data privacy and security. People are increasingly concerned about the security and privacy of their data, and news reports of data breaches and cyber-attacks compound this anxiety. Individuals may be cautious about embracing new technology due to this lack of confidence, slowing the pace of digital transformation. To close the gap, enterprises and governments must prioritize data privacy and security as part of their digital transformation activities. We can only fully achieve the potential of digital transformation and ensure that everyone benefits from the opportunities it brings if we create trust in the security and privacy of digital technology.

#### **4.1.7 Language and Cultural Barriers**

Due to language and cultural limitations, not all residents can access these technological breakthroughs equally. Bridging the language and cultural divides is critical for the success of digital transformation. Language limitations can make it difficult for people to grasp instructions and manuals, leading to a lack of trust in utilizing technology. Cultural barriers, on the other hand, can impact the design and use of technology, making it difficult for people from specific cultures to use it. We can ensure that all residents have equal access to the benefits of technological breakthroughs by bridging the gap between language and cultural obstacles, which can lead to a more inclusive and prosperous society.

#### **4.1.8 Generation Gap**

Sociologists have long been fascinated by the generation gap, which symbolizes a separation between different age groups and their views, values, and attitudes toward numerous elements of life. With the progress of technology, this divide has grown even more comprehensive, particularly in the digital world. It is critical to recognize and comprehend different generations' various attitudes and preferences toward technology. Younger generations adapt to new technology more quickly, whereas older generations may need more time and assistance to fully understand and use new technologies.

### **4.2 Public-Private Strategies for Overcoming the Digital Divide**

Various strategies can be employed to bridge this gap and promote digital inclusion. Here are some effective strategies for overcoming the digital divide.

#### **4.2.1 Investing in Infrastructure to Improve Connectivity**

Investment in infrastructure is critical for enhancing connectivity to technology breakthroughs, particularly in closing the digital divide and overcoming the digital divide in digital transformation. This disparity is a significant concern, as access to technology has become crucial for daily living, employment, and communication. Investment in infrastructure, such as high-speed internet, can boost connectivity and close the digital divide. Individuals and communities can connect with the rest of the world, receive information, and participate in the digital economy with access to technology and the internet. Increased connectivity also benefits businesses, education, and healthcare, allowing them to provide citizens with more accessible and efficient services.

#### **4.2.2 Providing Digital Skills Training and Education**

It is critical to provide citizens with digital skills training and education to bridge the digital divide. Governments, educational institutions, and businesses must take the lead in ensuring that individuals have access to training programs and resources to help them obtain the necessary skills. These programs should concentrate on the technical aspects of digital technology and the critical thinking and problem-solving abilities required to navigate complicated digital settings. Good digital skills training should also be accessible and inclusive, reaching people from all backgrounds, including low-income and rural residents, those with impairments, and elderly adults. Furthermore, these programs should be customized to meet specific requirements and objectives, allowing users to study at their own pace and in various forms.

#### **4.2.3 Making Affordable Digital Devices and Services**

An essential option for overcoming this difficulty is to make affordable digital devices and services available to everyone. Government subsidies or incentives for low-income individuals and families are one efficient strategy to make digital gadgets and services more accessible. Governments and technology businesses can collaborate to provide subsidized equipment and services to individuals who cannot afford them. This could include offering free or low-cost internet access, lowering or eliminating taxes on digital equipment, or developing lending programs to assist folks in purchasing the required technology. Another strategy would be to encourage the private sector to invest in developing low-cost digital devices and services. Businesses can create items that are more affordable and accessible to a broader range of customers, especially those living in rural or low-income areas.

#### **4.2.4 Providing Ease of Access**

Access to technology improvements will also necessitate resolving underlying social and economic disparities. Governments and organizations must seek to reduce income gaps, equalize access to education and employment opportunities, and overcome societal hurdles to technological adoption. By tackling these concerns, governments, and organizations may ensure that technological improvements not only reach all populations but also help to eliminate inequality and improve the quality of life for all.

#### **4.2.5 Creating User-Friendly Digital Service**

Developing user-friendly digital services is critical in bridging and conquering the digital divide in digital transformation. This necessitates a focus on user-centered design concepts that prioritize end-user demands and experiences and an emphasis on clear communication and accessibility. User-friendly digital services have the potential to significantly improve digital literacy, access to critical services, and overall quality of life. As a result, legislators and developers must prioritize user-friendliness while developing digital services to ensure that everyone can benefit from technical improvements and participate in the digital economy.

#### **4.2.6 Robust Security to Maintain Privacy**

To bridge the digital divide and promote digital transformation, it is critical to emphasize effective security measures that protect citizens' privacy. While technology improvements provide several advantages, they also introduce new threats, such as data breaches and cyber assaults. To ensure that everyone engages in the digital world safely and securely, adequate security measures must be implemented to protect users' personal information and prevent unauthorized access to sensitive data. This can involve employing encryption technologies, adopting two-factor authentication, and keeping security software current. We can develop trust in the digital ecosystem and allow individuals to take advantage of the numerous benefits technology offers by prioritizing robust security.

#### **4.2.7 Engaging Private Sector Partnerships**

Engaging private sector partnerships is critical in bridging and conquering the digital divide in digital transformation. Governments can use their expertise and resources by cooperating with private sector partners to offer residents access to technological breakthroughs. Private sector partners can give citizens cash, technical experience, and infrastructure regardless of location or socioeconomic level. Furthermore, private sector partners can assist in training citizens on how to utilize the technology to benefit from it fully.

#### **4.2.8 Policy and Regulatory Framework**

The digital divide has long been a problem in digital transformation, with many individuals needing more access to technology and the internet. To close this gap, a firm policy and regulatory framework that ensures technological developments are accessible and affordable to all residents is required. A strategy like this should prioritize expenditures in digital infrastructure, such as expanding internet access and developing digital skills and literacy programs for individuals. Furthermore, the framework should handle data privacy and security concerns, ensuring that people's information is secure and that they have control over their digital identities. Governments can foster technological breakthroughs that benefit all

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populations toward digital transformation by building a robust legislative and regulatory framework.

#### **4.2.9 Multi-Language Supported Feature**

A critical aspect of bridging this gap and promoting digital transformation for all citizens is multi-language support. With this feature, technical improvements can enable non-native speakers to access digital products and services in a range of languages, making them easier to navigate and use. This not only encourages diversity but also empowers those who may have previously been excluded from digital transformation. Furthermore, multi-language support can increase communication and collaboration between people of different linguistic origins, resulting in a more integrated and diverse technical world. Therefore, including multi-language support in technology breakthroughs is an essential step toward bridging the digital divide and encouraging digital transformation for all individuals.

#### **4.2.10 Investment in Research and Development**

Investing in research and development (R&D) is critical for developing technical improvements, which can help bridge the gap and overcome the digital divide in digital transformation. R&D funding can aid in the development of novel technologies that are more inexpensive, accessible, and user-friendly, allowing more residents to access and benefit from digital tools and services. Businesses and governments can also develop innovative technologies that address the specific requirements of underprivileged groups and promote digital inclusion by investing in R&D. Furthermore, R&D can lead to the development of new industries and job possibilities, thereby encouraging economic growth and social welfare. Investing in R&D is thus an essential step in closing the digital divide and ensuring that all citizens can participate in the digital transformation.

### **4.3 Potential Impact and Benefits of Resolving the Issue**

It is important to note that finding solutions to these problems not only has a direct impact on the issue at hand but can also lead to a host of benefits and positive outcomes in the future. Which we will discuss below;

#### **4.3.1 Economic Growth Progress**

By unlocking the potential of millions of individuals who are currently excluded from the digital economy, resolving the digital divide issue can have a significant impact on economic growth advancement. Individuals and communities can learn new skills, enter new markets, and boost their production and efficiency by bridging the gap and offering access to digital tools and technologies. This, in turn, has the potential to boost economic growth, job creation, and innovation. Furthermore, increasing access to the digital economy has the potential to reduce income inequality and promote inclusive economic development. Overall, closing the digital divide is a critical step toward achieving long-term, fair economic growth in the digital age.

#### **4.3.2 Increase in Education Literacy**

Increased education literacy is one of the potential consequences and benefits of resolving the digital gap issue in digital transformation. Anyone with access to technology and digital resources can increase their knowledge and abilities through online courses, e-books, and other educational tools. Through bridging the digital divide, more people, regardless of location or socioeconomic level, will be able to seek education and training. This can result in a better educated and competent workforce, which can boost productivity, innovation, and economic growth. Furthermore, as more people have access to information and participate in the digital economy, a rise in education literacy can enhance social inclusion and fairness.

#### **4.3.3 Improvement in Healthcare Service**

Bridging the digital gap has the potential to improve healthcare service delivery significantly. Telemedicine and other digital health technology, for example, can enable patients to connect with doctors and receive medical advice remotely, increasing access to care in rural or underserved areas. Furthermore, online patient portals can give patients quick access to their medical records, allowing them to stay informed and involved in their own care. Increased

access to technology can also assist healthcare professionals in streamlining their processes, reducing errors, and managing patient data more effectively. Finally, closing the digital divide has the potential to have a significant influence on healthcare by enhancing access to care, patient outcomes, and provider efficiency.

#### **4.3.4 Increase in Citizen's E-Participation**

More citizen e-participation is one of the potential benefits of fixing this issue. More people will be able to join in online debates, provide feedback, and participate in decision-making processes that affect their lives if everyone has equitable access to technology and the internet. This greater participation has the potential to result in more inclusive and democratic decision-making, enhanced transparency, and overall better governance. Governments can benefit from more efficient service delivery and increased public trust in a digitally connected population. As a result, bridging the digital gap is critical to ensuring that all citizens can engage in the digital world and benefit from technology breakthroughs.

#### **4.3.5 Environmental Sustainability**

As more people have access to digital technologies and the internet, they will be able to use a variety of digital tools and services to lessen their environmental effects. People, for example, can utilize digital technologies to track their energy consumption, decrease waste, and adopt more sustainable practices. Furthermore, improved access to digital technologies can lead to the development of more environmentally friendly products and services. The Internet of Things (IoT), for example, can be used to build smart homes and communities that optimize resource utilization and reduce carbon emissions. Bridging the digital divide can so contribute not only to improved access to knowledge and economic possibilities but also to a more sustainable future.

#### **4.3.6 Citizen's Empowerment**

In the context of digital transformation, citizen empowerment has a critical potential impact and benefit in overcoming the digital divide issue. Bridging the digital divide between those who have access to digital technology and those who do not is critical to ensuring that all citizens have equal opportunities to participate in the digital economy, access critical services, and participate in the democratic process. Citizens can build digital skills and competencies by gaining ubiquitous access to digital technologies, boosting their employability and civic participation. This greater participation has the potential to result in a more engaged and educated population, which can assist in driving social and economic growth. Therefore, closing the digital divide can aid in the reduction of inequities and disparities, fostering a more egalitarian society.

#### **4.3.7 Rise in Government Effectiveness**

Another potential benefit of bridging the digital gap is increased government effectiveness. Governments may use digital technologies and the internet to improve service delivery, communicate with citizens, and raise transparency and accountability as more people and communities get access to them. Digital technologies, for example, can be utilized to streamline administrative processes, eliminate bureaucracy, and improve citizen participation in decision-making. This can result in more efficient and effective government, which can encourage economic growth, social development, and improved public services. Governments can create a more inclusive and connected society by bridging the digital divide and unlocking the full potential of digital transformation for the benefit of all.

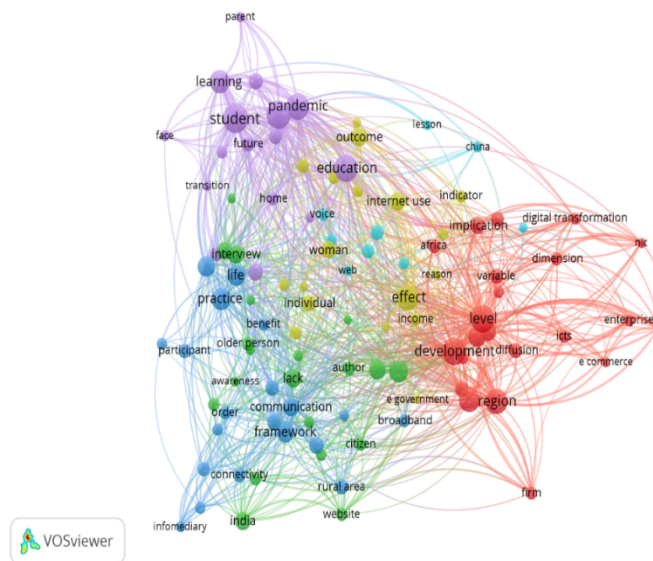
#### **4.3.8 Removal of Communication Gap**

By closing this gap, all people will have access to digital technologies such as the Internet, email, and social media, allowing them to connect effectively and efficiently with others. Better communication can aid in bridging cultural gaps, collaboration, and innovation. Closing the communication gap through digital inclusion can also lead to improved access to education, healthcare, and government services, resulting in overall quality of life improvements. As a result, bridging the digital divide issue is critical to providing equitable communication access and realizing the potential benefits of digital transformation.

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### 4.3.9 Ease of Access to Information

Those who need access to technology and the internet are able to benefit from the wealth of information available online. This can result in fewer educational and job options, as well as hampered personal and professional development. Bridging the digital divide, on the other hand, can dramatically improve individuals' and communities' access to information. Individuals can access educational materials, job possibilities, and online communities by having access to technology and the internet. Furthermore, increasing access to information can encourage greater openness and accountability, empower citizens to participate in decision-making processes, and improve individuals' and communities' overall quality of life.



(Figure 5. Main Theme Highlighted based on VOSviewer Analysis)

### 4.4 Recommendation and Implications for Future Research

**Recommendation:** It is imperative to have effective cooperation between the public and private sectors in order to bridge the digital divide and ensure successful digital transformation in government. Future studies should concentrate on creating frameworks and best practices for promoting such cooperation, which includes identifying key stakeholders, establishing clear communication channels, and aligning goals and objectives. Additionally, analyzing case studies of prosperous public-private partnerships in digital transformation endeavors can provide valuable insights into the most effective strategies in various contexts, allowing policymakers to replicate successful models and avoid common challenges.

**Implications for Future Research:** It is crucial to comprehend the role of emerging technologies like blockchain, artificial intelligence, and the Internet of Things in facilitating public-private cooperation for digital transformation. Research should explore how these technologies can be utilized to enhance service delivery, improve data security and privacy, and foster inclusivity in government digital initiatives. Furthermore, examining the influence of regulatory frameworks and policy incentives on promoting cooperation between the public and private sectors can provide valuable guidance for policymakers seeking to create an environment that enables digital transformation endeavors.

### Conclusion

In conclusion, removing the gap created by the digital divide will be a crucial step toward the complete achievement of digital transformation, which will eventually help us to build inclusive, equitable, and sustainable growth in the country. So, in order to achieve it, as we

mentioned in our findings, a comprehensive and inclusive approach is needed from the government end with the backing of the private sector and civil society, and with the combined effort of each stakeholder' countries will be able to address underlying social, economic and political factors that create and perpetuate the digital divide like poverty, marginalization, and discrimination which also clearly discussed in our findings. We also make it clear through our findings that the digital divide is not just limited to technical issues but also relates to social and political practices. Therefore, the only way out of this is to work together with different stakeholders of the country. That is why, as we move forward into the digital age, let us remain mindful of the criticality of bridging the digital divide and continue to prioritize planning for solutions in order to create a more inclusive and equitable society. After successfully doing it, countries can be able to unleash the full potential of digital transformation, and in the future, they can harness its power to create a better environment for their citizens.

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### Conflicts of Interest

The authors declare no conflict of interest.

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