

Impact of Digital Divide on E-Governance: Role Played by Corporate Social Responsibility to Bridge the Gap

SMS Journal of Business Management
41-46

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Article Guideline:

<https://www.smsjbm.com/user/front/index>



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Abstract

The convergence of electronics with telecommunications has helped open the door to novel possibilities for transmission of information, retention, and retrieval. However, it's not merely confined to the business sector, but it's increasingly utilized by the government sector. As a result of this transition, e-Governance has become an essential component of any nation. There is a noticeable digital divide problem in the nation. The digital gap has recently piqued the interest of academicians and policymakers due to its economic, social, as well as political implications. E-services increase the government's responsiveness, efficiency, and openness. Unfortunately, not everyone will be able to reap these benefits due to digital divide. So, there is a need to look into the possible impact of digital divide on e-governance using Structural Equation Modelling. Moreover, the study makes an attempt to look into the role played by Corporate Social Responsibility to bridge the gap.

Keywords

Digital divide, E-Governance, Corporate Social Responsibility, Structural Equation Modelling

1. Introduction

The fast growth and dissemination of ICTs (Information and Communication Technology) has expedited economic and social transformation in all sectors of human activity across the world, through interactive communication, not constrained by geographical area, media, or time besides saving cost. ICTs are projected to make a significant contribution in the social and economic building process of the nation, transforming people's economic paradigms and lives. However, the ability to fully use the capabilities of ICTs is limited as it largely relies on the access to and use of

these technologies. In reality, an economy's level of ICT adoption is a yardstick of its ability to capitalise on the economic opportunities provided by the novel and advanced technologies—and, more broadly, its chances for making the shift to the "new economy."

2. Digital Divide

Due to a variety of factors, millions of individuals throughout the world don't even have internet connectivity, phones, or smart phones. Their incapacity to use ICTs prevents them from benefiting from such. This has resulted in a major issue known as the "Digital

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Divide," which divides people who participate in the technological revolution from those that don't (United Nations, 2006). The phrase "digital divide" as per the OECD (2001) is the difference between people, families, enterprises, and geographic areas at various socioeconomic levels in terms of their ability to access ICT and internet usage. It's all about individuals turning knowledgeable and non-knowledgeable, as well as about those who does and does-not and those who are able to connect with the world around and others who can't (Brown & Licker, 2003). In this context, it's also crucial to learn about some of the major causes of India's digital divide. For every Indian who has internet connection, there is at least an individual who doesn't in which that person is likely to live in a remote area.

2.1 Factors influencing digital divide

The factors influencing Digital Divide can be classified mainly into two; Intrinsic factors and Extrinsic factors:

2.1.1 Intrinsic factors

Knowledge and Skills (Brown and Licker, 2003): The digital divide will expand due to the absence of ICT skills and expertise. People with a greater level of education will be a little more likely to utilise and adopt ICT tools than those with a lower level of education.

Attitude and Culture (Zhou et al., 2020): ICT adoption and use differs across ethnic groups. People from various cultures could have different perspectives on ICT, influencing ICT usage. Psychologic factors like attitude, trust etc: can influence ICT adoption. It will be highly adopted if there is a positive attitude toward technology.

Socio-economic status (Singh, 2010a): The digital gap will exacerbate economic disparities between individuals who can and cannot access technology. This covers income of an individual, gender, ethnicity, profession, age, and location, or even the institutions.

2.1.2 Extrinsic factors

Quality of service (Mutula & Van Brakel, 2007): The adoption rate will rise if the

service is of greater quality and the Connectivity performance is quicker. Due to increased expenses, updating of hardware and software is problematic; as a result, despite the fast expansion of the Internet, the technical gap is widening with the rise in technological standard.

Infrastructure (Lentz & Oden, 2001): The primary obstacles in this area are insufficient communication infrastructure with adequate and stable bandwidth for Internet access, as well as cost, the capacity to afford or hire equipment without economic hardships.

Institutional structure (Wamuyu, 2017): Governmental institution, form, and kind (e.g., policies, rules and regulations). The impact of government policies and regulations in supporting or hindering ICT diffusion is considerable. One of the main priorities of governments has been to guarantee that information and public services are easily accessible and available.

3. E-Governance

E - Governance has the potential to alleviate poverty, reduce inequality, as well as ensure the safety of fundamental human needs which ensures a country's development. The literacy rate in the country is below the poverty line, and most people are unaware of the importance of E-Governance. E-governance has improved the government's internal organisational procedures, increased transparency in government operations, and boosted political legitimacy and responsibility in governance. E-Governance facilitates democratic activities such as public involvement and consultation with the use of ICT with the aim to empower information and service delivery, encourage citizen participation in decision-making and make Government more accountable, transparent and responsive. It is a move towards SMART governance.

The digital gap has a negative impact on e-government projects and lowers service efficiency. The backbone of contemporary society is ICT infrastructure. According to

many research (Li et al., 2015), effective governance is impossible without ICTs. India is one among the countries in which telecommunications advancement activities have got momentum over these years. The goal is to assist contemporary communications technology serve all sectors of India's culturally varied society, transforming it into a technologically advanced nation.

4. Statement of the problem:

The way government entities engage with citizens as a whole is transforming the rapport between them which is attributable to e-governance. Prior to digitalisation services were provided offline. The unique nature of slowness of offline mode was a factor which impeded government services 'provision. But unfortunately, it is pathetic to note that, in Kerala's current status, the affinity of people towards e-governance is very low and not everyone will be able to reap these benefits. There exists huge difference between citizens of Kerala, in terms of education, accessibility to technology, skill set to use technology. This creates a gap between citizens to access the e-government services. In order to rectify this issue, government services of almost all departments were digitalised. Quality services in a transparent and swift way is the crux of all digital services. E-services increase the government's responsiveness, efficiency, and openness. So, there is a need to look into the possible impact of digital divide on e-governance and find solutions to overcome the issues.

5. Significance of the study:

The major source of these problems in India is a lack of good ICT plan and policy. In addition, for a number of government agencies, NGOs (non-governmental organisations), and international assistance agencies, insufficient Internet and telephone access to India's remote regions, where the larger proportion of the nation's population resides, is a major challenge. As a result, illiteracy, poor digital skills, and lack of infrastructure in rural regions must be resolved if India needed

to close the digital divide. Connectivity distribution, content development, capacity enhancement, key technology development, reduced costs, competency improvement, community involvement, and dedication to the underprivileged should all be prioritised by the government to bridge the digital gap. So, it is now the role of corporate sector to get indulged in vigorous Corporate Social Responsibility activities to vanish such a digital gap and make the nation developed in all ways.

6. Objective of the study:

The study intends to examine the influence of digital divide on the impact of E-governance.

7. Hypothesis of the study:

The null hypothesis of the study is as follows:

H0: There is significant goodness of fit in the model of digital divide on E-governance impact.

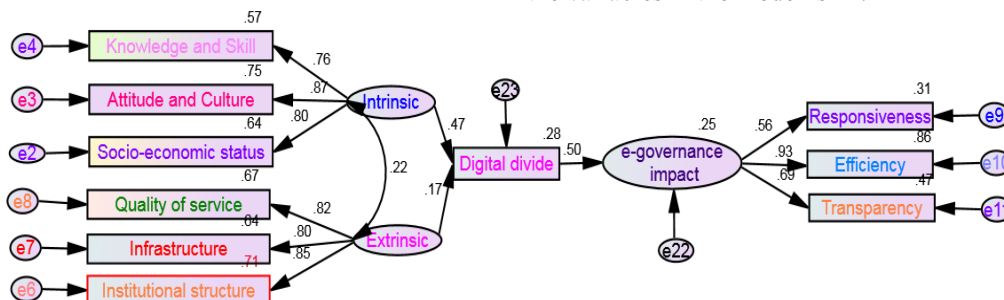
8. Research Methodology:

The population of the study consists of all citizens who use the various unique features of digital services for their transactions with the government. Since the size of the population is very large, in the present study the population is confined to the taluk of Ernakulam district where the researcher has selected 5 Akshaya centres (from each panchayat) based on simple random sampling method and from each Akshaya centre 25 respondents were selected. The data was collected from 125 citizens of Ernakulam district of Kerala who are availing digital government service through Akshaya centres. A structured questionnaire measuring responses on a five-point Likert scale was used for data collection. The respondents consist of officials, business people, professionals, common people etc. The data was collected during the period of January 2022 to February 2022. Structural equation modelling was used to analyse the path that is the impact of digital divide on e-governance. Moreover, an attempt was done to understand the influence of CSR to bridge the gap of Digital Divide.

9. Analysis and findings of the study

From the model summary, the Observed variables are 10 and the number of unobserved

variables is 14. Number of exogenous variables includes 13 and the number of endogenous variables 11. The total number of the variables in the model is 24.



Source: Primary data

Figure 1. SEM model showing the influence of Digital Divide on E-Governance.

Table 1. Standardized Regression Weights and Unstandardized Regression Weights

Relationship		Unstandardised Estimate	S.E.	C.R.	P	Standardised Estimate
Digital Divide	<--- Intrinsic hindrance	.558	.063	8.813	***	.466
Digital Divide	<--- Extrinsic hindrance	.137	.039	3.467	***	.169
E-Governance	<--- Digital Divide	.345	.044	7.774	***	.505
Knowledge and skill	<--- Intrinsic hindrance	1.125	.074	15.298	***	.801
Attitude and culture	<--- Intrinsic hindrance	1.106	.070	15.874	***	.865
Socio-economic status	<--- Intrinsic hindrance	1.000				.755
Quality of service	<--- Extrinsic hindrance	1.000				.845
Infrastructure	<--- Extrinsic hindrance	1.011	.060	16.710	***	.798
Institutional structure	<--- Extrinsic hindrance	.950	.056	17.000	***	.818
Efficiency	<--- E-Governance	1.803	.178	10.154	***	.926
Responsiveness	<--- E-Governance	1.000				.555
Transparency	<--- E-Governance	1.263	.125	10.129	***	.687

Source: Primary Data

As per the Standardized Estimates, the highest impact of the independent variable to the influence of the ‘Digital Divide’ is ‘Intrinsic hindrance’ (0.466), whereas, Extrinsic hindrance influence Digital Divide only by 16.9% (.169) and all the relations are found to be statistically significant. Digital divide influences ‘E-Governance’ by 50.5% (.505) and the relation is statistically significant. The variable which is highly influenced by

E-Governance is Efficiency (.926) followed by Transparency (.687) and Responsiveness (.555). All the relations are statistically significant. The factor which is most influenced by Intrinsic hindrance is ‘Attitude and Culture’ (.865) and the factor which is most influenced by Extrinsic hindrance is ‘Quality of Service’ (.845).

Table 2. Covariances and Correlations

Relationship		Covariance Estimate	Correlation Estimate	S.E.	C.R.	P value
Intrinsic hindrance	<--> Extrinsic hindrance	.215	.222	.058	3.676	***

Source: Primary Data

The coefficient of Covariance between the Intrinsic hindrance and Extrinsic hindrance is 21.5%, whereas, coefficient of Correlation between both the variables is 22.2% which are statistically significant.

Table 3. Squared Multiple Correlations:

Variables	Estimate
Digital Divide	.281
E-Governance	.255
Transparency	.472
Efficiency	.857
Responsiveness	.308
Institutional structure	.669
Infrastructure	.637
Quality of service	.714
Socio-economic status	.571
Attitude and culture	.748
Knowledge and skill	.641

Source: Primary Data

The present model reveals that all the Squared Multiple Correlation values of all the variables are higher which indicates the prediction accuracy. The prediction accuracy of 'Efficiency' is the highest (85.7%) followed by 'Attitude and Culture' (74.8%).

Table 4. Model Fit Summary

Indices	Value	Suggested value
Chi-square value	140.91	-
DF	42	-
P value	.057	> 0.05 (Hair et al., 1998)
Chi-square value/DF	3.355	< 5.00 (Hair et al., 1998)
GFI	.940	> 0.90 (Hu and Bentler, 1999)
AGFI	.916	> 0.90 (Hair et al. 2006)
NFI	.920	> 0.90 (Hu and Bentler, 1999)
CFI	.937	> 0.90 (Daire et al., 2008)
RMR	.044	< 0.08 (Hair et al. 2006)
RMSEA	.072	< 0.08 (Hair et al. 2006)

Source: Primary Data

From the above table it can be made out that the computed P value is 0.057. Besides, the CMIN/DF is 3.355. The Goodness of Fit Index (GFI) value (0.940) and Adjusted Goodness of Fit Index (AGFI) value (0.916) is greater than 0.9 which shows that it's a good fit. The computed Normed Fit Index (NFI) value (0.920) and Comparative Fit Index (CFI) value (0.937) indicates that it is perfectly fit and also it is found that Root Mean Square Error of Approximation

(RMSEA) value is 0.072, which is less than 0.08 which indicates it is perfectly fit. Root Mean Residuals (RMR) is 0.044. Thus, it can be concluded that the model is perfectly fit.

10. Recommendation-What Corporate Social Responsibility can do to curb digital divide in India?

The Indian government faces a difficult task in bridging the digital gap and ensuring technological growth and access. The majority of the programmes taken up by the state are aimed at bridging the digital divide between rural and urban areas. Apart from supportive regulatory policies by the government, its high time that various public, private, and non-profit organisations extended their help to bridge the gap.

Some private enterprises, such as the Tata Council of Community Initiatives, play actively supporting adult education throughout the country. By producing multimedia presentations, the council has expanded various advanced digital literacy initiatives to promote India's adult education. Furthermore, the Azim Premji Foundation had also worked to enhance learning in schools by developing impactful and scalable methods for universalizing primary education. Some business powerhouses, such as Hindustan Liver, have launched an initiative named i-shakti, a digital service to disseminate information rurally that aims to fulfil rural requirements. The initiative aims to develop 1,500 kiosks to provide information services to more than 10 million residents in the rural areas of Andhra Pradesh. Rural connection is being established throughout the nation through the Oglivy and Mather Company's "Param" initiative. The project's motto is "connect the last mile first." The project enables communication with the operator by the computer in both verbal and written form in the local language. Amul India, a well-known dairy corporate located in Anand, Gujarat, has set up a network of Dairy Information System kiosks (DISK). Presently, 2,500 kiosks are connected at the village level, with the scheme covering 70,000 milk societies once completed. During these

unprecedented days of pandemic which has drastically affected almost all sectors in the world over, the digital divide is more conspicuous in a developing nation like India. Moreover, an astonishing fact is that, there have been only a few corporates and non-government organisations who have come forward to extend a helping hand to minimize this digital gap. Though there have been several government-sponsored programmes, such as the Jan Dhan Yojana, have enabled ordinary individuals to access financial services, pension (PMSBY and PMJJBY), and insurance-services (Atal Pension Yojana), thus digitally empowering them the digital gap still persists in India. So, corporates must fund for initiatives which may be undertaken by various charitable institutions to provide smart phones as well as high-speed data packs. Besides, inability to afford digital devices and lack of digital literacy acts as major impediments that can be solved easily by the giant corporates by encouraging programs that impart digital literacy, set up computer laboratories etc: for the unprivileged sections in the society. Besides, corporates along with state must ensure undisturbed power supply and high connectivity to enable speed in service.

11. Conclusion

History indicates that business, not the state, is responsible for a country's economic development. Private businesses must without fail should meet the unique ICT requirements of disadvantaged groups. The government and companies must collaborate and develop applications to address remote area developmental initiatives, thus vanish digital divide which eventually improves E-Governance and reflects Transparency, Efficiency and Responsiveness. The problems faced by the nation is infinite that it cannot be solved by the government alone as the resources are limited. Therefore, in a country like India where some corporate entities are even more powerful than the government, miracles can be done by the companies to change the facet of the nation through CSR. Indian businesses must do a lot more to help by improving their Corporate

Social Responsibility (CSR) activities and proactively engaging in generating win-win situations for both themselves and the citizens.

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