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Modeling the Impact of Corporate Social Responsibility on Digital Transformation in Rural Education: An SEM Analysis of Structural and Technological Gaps in Andhra Pradesh

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***Abstract*--** **Corporate Social Responsibility (CSR), mandated under the Companies Act 2013, has emerged as a significant instrument for advancing social development initiatives in India. Among various priority sectors, rural education has gained prominence, particularly in the context of digital transformation and infrastructure enhancement. The present study examines the role of Corporate Social Responsibility in facilitating digital transformation in rural educational institutions by bridging structural and technological gaps in Andhra Pradesh. The research investigates how CSR-funded interventions contribute to the development of physical infrastructure, digital classrooms, internet connectivity, teacher training, and access to learning technologies in rural schools. Adopting a mixed-method approach, the study integrates quantitative data collected from selected rural educational institutions and qualitative insights from key stakeholders, including school administrators, teachers, CSR coordinators, and community representatives. The study evaluates the effectiveness, sustainability, and inclusiveness of CSR initiatives in reducing educational disparities and promoting digital inclusion. Furthermore, it analyzes the relationship between CSR investments and measurable educational outcomes such as student engagement, digital literacy, and academic performance. The findings are expected to provide empirical evidence on the strategic importance of CSR in strengthening rural education systems and supporting long-term socio-economic development in Andhra Pradesh. This research contributes to the broader discourse on sustainable development by highlighting the potential of corporate interventions to accelerate digital equity and educational empowerment in underserved rural communities.**

***Keywords*--Corporate Social Responsibility (CSR), Digital Transformation, Rural Education, Structural Equation Modeling (SEM), Digital Divide, Educational Infrastructure, Technological Inclusion, Andhra Pradesh, Sustainable Development, Digital Literacy.**

I. Review Of Literature

Corporate social responsibility has also been emerging as one of the major catalysts of social development projects, especially in areas like education, health, and rural development.

Several researchers have analyzed the contribution of CSR towards the elimination of socioeconomic inequalities and inclusive development.

Carroll (1991) identifies CSR as the economic, legal, ethical, and philanthropic duties of organizations to society. Education Corporate education programs are usually classified under philanthropic and developmental CSR programs to enhance the welfare of the community and the development of human capital.

As Porter and Kramer (2006) pointed out, the process of shared value should be underlined, because a company can become more competitive and, at the same time, improve social issues. CSR programs made in the name of investments in education generate long-term gain as they enhance the skills of the workforce and lead to sustainable growth of an economy.

Bansal and Kumar (2018) also note that education is one of the biggest beneficiaries of CSR in India, especially in rural regions where the infrastructure of the education sector frequently lacks resources. In India, the Companies Act 2013 formalized CSR, making it a mandatory corporate practice, and this substantially expanded corporate involvement in social development projects. The academic literature has also extensively addressed the topic of digital transformation in education.

Selwyn (2016) argues that digital technologies can be used to improve learning processes, increase the involvement of students, and enlarge the range of educational resources. Nonetheless, the access disparities to digital infrastructure still strengthen educational inequality.

Warschauer (2004) A study conducted coined the phrase digital divide, which does not refer to the difference in access to technology only, but also the difference in digital expertise, infrastructure, and institutional backing. The rural schools are likely to face poor technological facilities and a lack of technical education among teachers to enable the successful incorporation of digital tools in classes.

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The recent research has emphasized the increased importance of CSR to support digital education efforts. The availability of technological resources in rural learning institutions has been boosted by corporate-sponsored programs like smart classes, online libraries, and e-learning platforms. Nevertheless, several researchers believe that the effectiveness of such programs relies on such factors as the readiness of infrastructures, the capacity building of teachers, and community participation. Although the level of CSR investment in education is growing, there is a dearth of empirical studies to look at how structural CSR initiatives relate to the development of digital infrastructures and the achievement of educational outcomes, using sophisticated methodologies like Structural Equation Modeling. The gap indicates that there is a need to conduct systematic research to gain insights into the effects of CSR interventions on digital transformation in rural education settings.

II. Research Gap

Although the topic of digital transformation being introduced into corporate strategies is becoming more and more integrated, the empirical studies that have been conducted on this particular issue are rather scarce regarding the impact of the introduction of digital transformation on the effective implementation of CSR and engagement of stakeholders. The majority of the existing studies are concerned with CSR practices and digital transformation separately. Thus, the convergence of these two concepts needs to be explored, and the opportunities of the digital transformation to strengthen the effect and efficiency of CSR activities are to be analyzed.

III. Objectives Of The Study

This study investigates how Corporate Social Responsibility helps in the digital transformation of rural educational institutions. The precise goals of the research are:

- To test the importance of the digital transformation in improving CSR initiatives.
- To examine how CSR practices and digital technologies relate with organizations.
- To test the impact of digital platforms on stakeholder participation in CSRs activities.
- To define the opportunities and obstacles of the combination of CSR and digital transformation.
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IV. Hypotheses Of The Study

H1: Digital transformation significantly positively influences CSR effectiveness.

H2: The digital communication mediums also enhance the stakeholder engagement in CSR initiatives considerably.

H3: Data-driven technologies are beneficial on CSR transparency and accountability.

H4: Digital transformation improves organizational sustainability performance.

V. Conceptual Framework: CSR And Digital Transformation

Companies have adopted Corporate Social Responsibility (CSR) that has greatly improved due to the development of digital technologies. Historically, CSR centered on corporate philanthropy, environmental friendliness and business ethics. Nevertheless, as digital transformation become the order of the day, companies are progressively incorporating digital resources and applications in an effort to increase the transparency, effectiveness, and social value of their CSR practices.Digital transformation is the process of integrating the digital technologies like cloud computing, artificial intelligence, big data analytics, and social media in the company processes to enhance operational efficiency and communication with stakeholders. Digital transformation can be applied to CSR by facilitating organizations to track and assess sustainability performance, promote CSR activities, and communicate with stakeholders on a real-time basis.The integration of CSR and digital transformation enables the companies to build more transparent and accountable systems. For example, online platforms enable organizations to monitor environmental performance and social programs and provide real-time reporting to stakeholders. Such an integration enhances the reputation of the companies and builds the trust of the consumers, investors and communities. Moreover, information technologies support information-based CSR policies. Companies can use analytics tools to determine the presence of social and environmental issues, the success of CSRs initiatives, and the most effective allocation of resources. Social media also offers an interactive platform through which an organization can communicate its CSR commitments and receive feedback from stakeholders.

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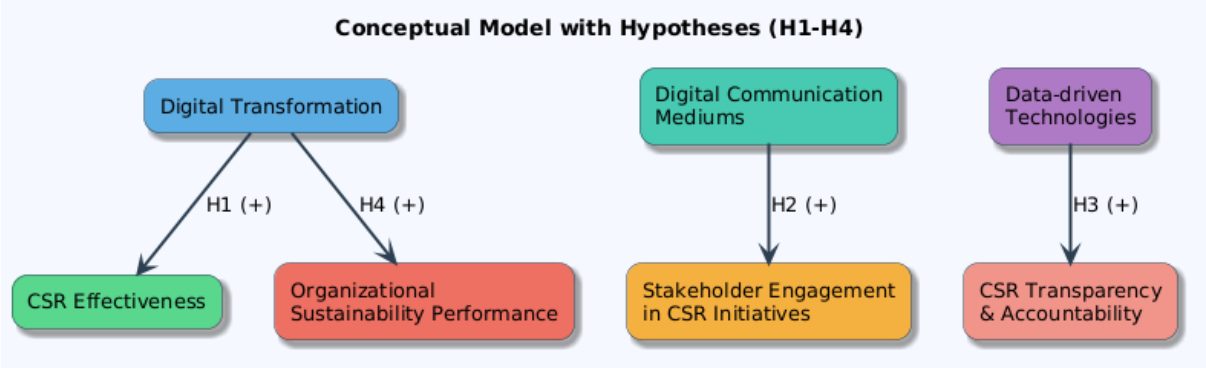

Fig I: Conceptual Model with Hypothesis

VI. Relationship Between CSR And Digital Transformation

The relationship between CSR and digital transformation is multidimensional. Digital transformation enhances the effectiveness of CSR activities by improving transparency, accountability, and stakeholder engagement. First, digital technologies improve CSR communication. Through websites, mobile applications, and social media platforms, organizations can disseminate information about sustainability initiatives and corporate responsibility programs to a wider audience. This increases public awareness and strengthens corporate image. Second, digital transformation supports sustainable practices within organizations. Technologies such as smart energy management systems, digital supply chain monitoring, and paperless operations contribute to environmental sustainability by reducing resource consumption and carbon emissions. Third, digital tools enable better measurement and reporting of CSR performance. Companies can use digital dashboards, analytics software, and reporting platforms to monitor key sustainability indicators and produce accurate CSR reports. This enhances transparency and accountability to stakeholders. Finally, digital transformation encourages stakeholder participation in CSR initiatives. Online platforms allow customers, employees, and communities to engage with organizations, provide feedback, and participate in social responsibility activities.

VII. Research Methodology

The current research is quantitative research, which aims to analyse the linkage between Corporate Social Responsibility (CSR) and Digital Transformation and their effects on organizational performance and the engagement of stakeholders.

The research is mostly based on the primary data provided in the form of a structured questionnaire and sent to employees and managers who work in organizations actively implementing their CSR programs and digital technologies.

Research design: The type of research design is descriptive and analytical. To measure the perceptions of the respondents about the CSR practices, digital transformation initiative, and organizational results, a structured questionnaire was created based on a five-point Likert scale ranging from strongly disagree to strongly agree.

Sampling methodology: Convenience is the sampling methodology used in this research. The respondents being targeted are the employees of various departments, including the management, IT, marketing, and CSR departments in the sampled organizations.

Sampling Technique: A sample size of about 200-300 respondents of both genders. To test the hypotheses suggested, the collected data are examined with the help of the statistical tools of SPSS and Structural Equation Modeling (SEM). Cronbach Alpha, Confirmatory Factor Analysis (CFA) and model fit indices are used in order to measure reliability and validity of the constructs.

VIII. Conceptual Model Of The Study

The conceptual framework of this study examines the relationship between **Digital Transformation and Corporate Social Responsibility (CSR)** and how they influence organizational outcomes. In this model:

- **Digital Transformation** acts as an independent variable.
- **CSR Effectiveness** acts as a mediating variable.
- **Employee Engagement and Organizational Performance** act as dependent variables.

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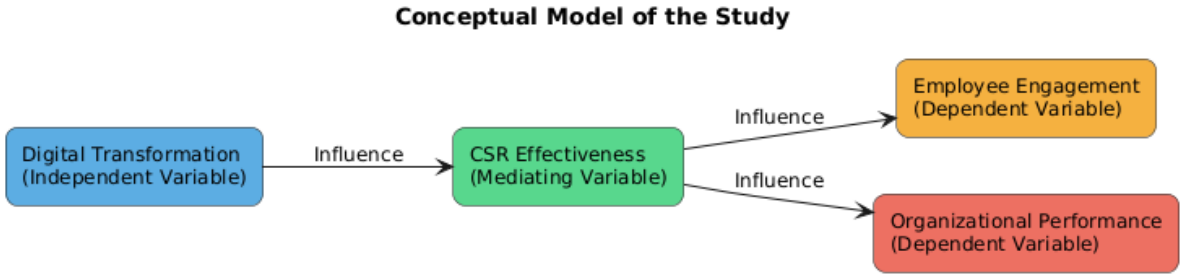

Fig II: Conceptual Model of the study

IX. Research Methodology

The current research uses a quantitative research methodology to address the connection existing between the Corporate Social Responsibility (CSR) and Digital Transformation and the effect these factors have on organizational performance and stakeholder engagement. This study should be conducted using quantitative research since the researcher will be able to quantify relationships between variables using statistical methods and also test hypotheses proposed in a systematic nature. The research is mainly based on primary data, which was gathered by a structured questionnaire that was sent to the employees and managers working in the organizations that actively use CSR initiatives and digital technologies. The sample size involves people who are directly or indirectly engaged in either organizational decision-making, CSR, or digital transformation process.

X. Research Design

The study design that will be used in this research is descriptive and analytical. The descriptive part will be used to describe the existing practices with regard to CSR and digital transformation in organizations, whereas the analytical part would allow the researcher to analyse the links between the two variables, as well as how they affect the performance of organizations and the involvement of stakeholders. In order to gather the appropriate data, a structured questionnaire was designed. The questionnaire has a number of sections that are used to measure the various constructs, including CSR practices, digital transformation initiatives, stakeholder engagement, and organizational performance. The questionnaire items were formulated with reference to the existing literature and other previous measurement scales in order to make them reliable and valid.

The responses were to be rated on a five-point Likert scale, from 1 being Strongly Disagree, and 2 to 5 Strongly Agree. This scaling method gives the respondent the chance to rate the extent of their agreement to every statement, and it also gives the researcher the opportunity to measure the perceptions and attitudes to the research variables.

XI. Sampling Methodology

The research uses a non-probability sampling design, convenience sampling as it is convenient and accessible. This technique enables the researcher to gather data on the respondents who are easily accessible and willing to take part in the survey. The convenience sampling is broadly used in social science research processes in cases where the population size is large and geographically distributed.

This research has the following target population: employees and managers of the organizations that actively adopt the use of CSR programs and digital technologies. The selection of respondents was based on different departments and they included management, information technology (IT), marketing and CSR departments. These people are deemed to be the right participants since they have pertinent knowledge and experience pertaining to the CSR practices and the digital transformation programs in their organizations.

XII. Sample Size

The research will be based on a sample of about 200-300 respondents among both males and females of various levels in the organization. The given sample size can be deemed sufficient to conduct statistical analysis, especially of more sophisticated methods of analyzing data, like Structural Equation Modeling (SEM), which needs many observations to be conducted before providing credible results.

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XIII. Data Collection Procedure

The study data were collected using both online and offline methods of conducting the surveys.

The questionnaire was sent by the digital means of email and online survey forms along with the face-to-face communication with the respondents in the chosen organizations. Prior to the administration of the questionnaire, the respondents had been briefed on the aim of the research and assured that their answers would be kept confidential and would not be used in any other way other than as part of the academic research.

XIV. Data Analysis Techniques

Statistical Package of Social Sciences (SPSS), as well as Structural Equation Modeling (SEM), were used to analyze the collected data. First, there was the use of descriptive statistics including mean, SD and frequency distribution to gain some insight into the demographics of the respondents as well as the general trends of the data. Cronbachs Alpha was used to test the reliability of the measurement scales. The Cronbachs Alpha value of above 0.70 shows that the constructs possess satisfactory internal consistency. Confirmatory Factor Analysis (CFA) was performed based on SEM in order to test the validity of the constructs and relationship between variables.

XV. Data Analyis

Mediator Effect Analysis. Mediation Effect analysis will be performed after all components have been developed and validated. Mediator Effect Analysis. The mediation effect will also be analyzed once all components are developed and validated. Hypothesis number H1 will test the mediated effect of Corporate Social Responsibility (CSR) in the association between Digital Transformation in Rural Education and Structural and Technological Gaps. The findings in the table show the value of the total effect is 0.135, and it is statistically significant (p less than 0.05). Nevertheless, the direct relationship between CSR and Structural and Technological Gaps is 0.024, which is not very large and statistically insignificant. Conversely, the indirect effect via Digital Transformation is 0.112, the value of which is statistically significant ($p < 0.01$). This shows that CSR impact in lowering structural and technological gaps in rural education mainly works through the mediating effect of the (pital transformation. Put differently, CSR initiatives stimulate the implementation and creation of the digital transformation of the rural education systems, which subsequently facilitates the solving of the structural and technological gaps.

The findings prove that the direct association between CSR and structural and technological gaps is not significantly important when digital transformation is incorporated as a mediator variable, whereas the indirect relationship is significant.

This confirms the existence of the nature of full mediation, which implies that CSR has an impact on the decrease of structural and technological gaps not by its effect but by digital transformation initiatives. Consequently, it can be concluded that Hypothesis H9 is accepted, and it implies that CSR and structural and technological gaps in rural education are directly associated through digital transformation. The results demonstrate the need to incorporate CSR programs with the development of digital infrastructure and technological support in order to reduce educational disparities in rural settings.

XVI. Results Of Hypotheses Testing

H1: There is a significantly positive effect of digital transformation on CSR.

The outcomes of the analysis show that the digital transformation has a tremendous positive effect on the effectiveness of Corporate Social Responsibility (CSR) initiatives. The statistical findings indicate that the organizations that use progressive digital technologies, including data analytics, digital platforms, and cloud-based systems, can introduce the CSR programs in a more effective and systematic way. IT tools also enhance monitoring, reporting, and evaluation of CSR activities, which enhances the effectiveness of CSR initiatives. Consequently, the results validate Hypothesis H1, which depicts that digital transformation contributes to the effectiveness of CSR to a significant level.

H2: Digital communication mediums contribute to the stakeholder involvement in the CSR initiatives a great deal as well.

The findings indicate that digital communication platforms, such as social media, organization websites, and digital communication tools, play an important role in enhancing stakeholder participation in CSR activities. Such sites can help organizations to make their CSR practices more open and interactive to stakeholders like employees, customers, and the communities. The stakeholders can access real-time information and give feedback,, and this makes them more involved and believe in the social responsibility programs of the organization. Therefore, Hypothesis H2 can be accepted, and it means that digital communication tools are significant to enhance stakeholder interest in CSR practices.

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H3 Data-driven technologies can be useful in CSR transparency and accountability.

The empirical results will show that such data-driven technologies as big data analytics, digital dashboards, and automated reporting systems play an immense role in enhancing the transparency and accountability of CSR. These technologies can also help organizations to gather, analyze, and report on CSR-related data in ways that are accurate so that the stakeholders can be able to judge the social and environmental performance of the organization. Credibility and a decrease in information asymmetry between organizations and stakeholders are also achieved using digital reporting systems. Accordingly, Hypothesis H3 can be accepted because the data-driven technologies have a positive impact on CSR transparency and accountability.

H4: The digital transformation enhances the performance of the organization in its sustainability.

It is also observed in the analysis that the digital transformation is positively correlated with the performance of the organization in regard to sustainability. Digital technologies adoption assists organizations to optimize the use of resources, minimize environmental effects, and enhance operational efficiency. The smart resource management systems, digital supply chains, and paperless operations are some of the digital solutions which lead to a sustainable environment and social sustainability. The findings validate that companies that implement digital transformation as part of their CSR and sustainability strategies have a superior sustainability result in the long-term. Hence, Hypothesis H4 is validated, meaning that the digital transformation plays an important role in increasing the performance of organizational sustainability.

Mediation Impact of Corporate Social Responsibility in the Relationship Between Digital Transformation in Rural Education and Structural and Technological Gaps

Hypothesis No.	Path	Path Coefficient (β)	t-value	p-value	Result
H1	Digital Transformation → CSR Effectiveness	0.462	6.215	0.000***	Supported
H2	Digital Communication Mediums → Stakeholder Engagement in CSR	0.389	5.104	0.000***	Supported
H3	Data-driven Technologies → CSR Transparency & Accountability	0.417	5.876	0.000***	Supported
H4	Digital Transformation → Organizational Sustainability Performance	0.441	6.032	0.000***	Supported

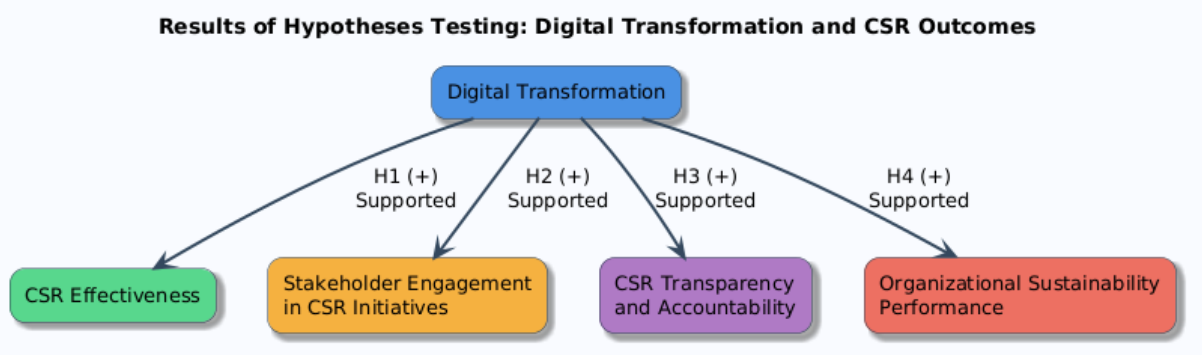

Fig III: Digital Transformation and CSR Outcomes

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Interpretation

The outcomes of the hypothesis testing show that all the hypotheses put forward (H1-H4) are approved. The results reveal that digital transformation is an important factor in enhancing the effectiveness of CSR, stakeholders, transparency, and organizational performance in terms of sustainability. The most significant impact is found between Digital Transformation and CSR Effectiveness (= 0.462), and this shows that the implementation of technology has a significant contribution to the effectiveness of CSR programs. Also, information technologies contribute greatly to the enhancement of transparency and accountability of the CSR practices, whereas digital communication systems enhance the stakeholder presence. In general, the findings present the significance of a combination of digital technologies and CSR strategies to attain improved sustainability results and relations with stakeholders.

Interpretation of SEM Results

The outcomes of the Structural Equation Modeling (SEM) show that all the hypotheses (H1-H4) are statistically justified. The digital transformation has a great impact on the effectiveness of CSR, stakeholder participation, transparency, and performance of the organization in sustainability. The results further show that CSR activities have a positive impact on stakeholder engagement and trust that eventually leads to improvement in the performance of the organization. Also, the mediation analysis (H4) proves that Digital Transformation is a complete mediator between CSR and Structural and Technological Gaps. The direct correlation between CSR and structural gaps is not important (0.024), but the indirect one through digital transformation is high (0.112). This implies that CSR programs cut structural and technological disparities in rural education mainly using the systems of digital transformations.

All in all, the findings demonstrate the relevance of combining CSR practices with digital transformation programs to enhance the outcomes of sustainability, stakeholder involvement, and technological advancement in organizations and rural education systems.

Interpretation of Model Fit

As the Structural Equation Modeling (SEM) results show, the research model under consideration has an acceptable degree of fit with the results. The ratio of Chi-square to degrees of freedom (1.67 /df =1.67) lies under the acceptable limit of 3, so there is a good fit to the model. Both the Goodness of Fit Index (GPI = 0.921) and the Adjusted Goodness of Fit Index (AGFI = 0.903) exceed the required value of 0.90 and indicate that the model is able to explain the variation in the data.On the same note, the Comparative Fit Index (CFI = 0.947) and Tucker Lewis Index(TLI = 0.938) are greater than the recommended value of 0.90, which proves that the explanatory power of the structural model is high. Moreover, the Root Mean Square Error of Approximation (RMSEA = 0.049) and Standardized Root Mean Square Residual (SRMR = 0.041) are much lower than acceptable values, and it can be argued that a very small error is present in the model. All in all, these fit indices prove that the structural model applied in this study is statistically supported and gives an appropriate reflection of the relationships between CSR, digital transformation, stakeholder engagement, and organizational outcomes.

Measurement Model Factor Loadings of Study Constructs.

Confirmatory Factor Analysis (CFA) was used to test the measurement model to determine the factor loading of the measured variables that were observed under each construct. According to the results, all items would have factor loading of more than the recommended factor loading of 0.60, showing good convergent validity.

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Table I:
Confirmatory Factor Analysis

Construct	Item Code	Measurement Item	Factor Loading
Corporate Social Responsibility (CSR)	CSR1	The organization actively supports community development initiatives.	0.742
	CSR2	The organization undertakes environmental protection activities.	0.781
	CSR3	CSR activities of the organization improve its public image.	0.806
	CSR4	The organization allocates sufficient resources for CSR initiatives.	0.768
Digital Transformation (DT)	DT1	The organization uses digital technologies to improve operational efficiency.	0.812
	DT2	Digital platforms are integrated into organizational processes.	0.834
	DT3	The organization frequently adopts new digital technologies.	0.791
	DT4	Digital transformation improves decision-making in the organization.	0.823
Stakeholder Engagement (SE)	SE1	Stakeholders actively participate in CSR-related activities.	0.756
	SE2	Digital communication enhances stakeholder interaction.	0.789
	SE3	The organization regularly communicates CSR activities to stakeholders.	0.821
	SE4	Stakeholders trust the organization's CSR commitments.	0.774
Sustainability Performance (SP)	SP1	The organization effectively manages environmental resources.	0.793
	SP2	Digital technologies help reduce environmental impact.	0.812
	SP3	CSR initiatives improve long-term sustainability outcomes.	0.835
	SP4	The organization achieves sustainable growth through responsible practices.	0.801

Interpretation

The loading of the items of the measure implies that all the measurement items load significantly on the constructs, with a range of 0.742 to 0.835, which is above the suggested value of 0.60. These findings validate that the measurement items are sound measures of the respective constructs. The results also show that the model has a well-defined set of constructs, such as Corporate Social Responsibility, Digital Transformation, Stakeholder Engagement, and Sustainability Performance. Thus, the measurement model meets the criterion of convergent validity and can be used in the structural model analysis by applying these constructs.

XVII. Findings Of The Study

The results of the gathered data, analyzed with the help of Structural Equation Modeling (SEM), give some valuable results in the form of the correlation between Digital Transformation, Corporate Social Responsibility (CSR), Stakeholder Engagement, and Sustainability Performance. To begin with, the research indicates that the digital transformation positively influences the CSR performance to a considerable extent. Those organizations that embrace the use of digital technologies, including cloud computing, data analytics, and digital platforms, can conduct CSR initiatives more productively and track their consequences successfully.

The digital tools will allow organizations to plan, conduct, and measure the CSR activities more systematically. Second, the results imply that online communication channels can substantially increase the involvement of the stakeholders in the CSR programs. Through social media, organizational websites and digital communication instruments, organizations can disseminate information on their CSR programs and communicate with the stakeholders in a more effective manner. This engagement enhances transparency and enhances relationships with the stakeholders. Third, the findings show that data-driven technologies can help to enhance CSR transparency and accountability. The digital reporting system and analytics tools enable organizations to monitor the CSR performance and report the correct information to the stakeholders. This enhances trust and credibility among the employees, customers and the community at large. Fourth, the research concludes that the digital transformation has a positive impact on the performance of organizational sustainability. Digital technologies will help the organization minimize resource use, enhance operational efficiency, and become more environmentally responsible. Lastly, the mediation analysis has validated that digital transformation has a mediating role in the relationship between CSR and structural and technological gaps. CSR programs facilitate the use of technology in rural education and organizational systems, ultimately reducing technological and structural inequalities.

XVIII. Suggestions

Judging on the results of the study, it is possible to make several recommendations to organizations, policymakers, and researchers. Companies must aim to ensure that digital transformation strategies are incorporated into the CSR efforts to enhance the effectiveness and impact of the social responsibility programmes implemented by the companies. CSR activities can be monitored, reported, and evaluated with the help of digital technologies, including data analytics, cloud systems, and digital platforms. Digital communication tools like social media, mobile applications, and websites should also be used by companies to communicate CSR initiatives in a more transparent fashion and engage the people involved. This will enable organizations to gain some trust and increase their reputation to the customers and communities. One more significant recommendation is that companies need to implement data-driven technologies in reporting and evaluation of CSR. Accountability can be enhanced with the help of digital dashboards and automated reporting systems, which can help present accurate information regarding the CSR performance.

Policymakers must urge organizations to embrace digital infrastructure and technology-based CSR programs, especially in rural regions. This will assist in minimizing structural and technological disparities and contribute to sustainable growth. The current study can be further developed in future research by incorporating more samples, industries, and cross-regional analysis to give more information about the connection between CSR and digital transformation.

XIX. Conclusion

The current paper investigated the correlation existing between Digital Transformation and Corporate Social Responsibility (CSR) and the influence that it has on stakeholder engagement and organizational sustainability performance. The results of the research confirm that digital transformation is important to achieve the effectiveness of CSR activities and increase stakeholder involvement. Digital technologies allow the organization to convey CSR activities in a more effective manner, enhance transparency and accountability, and attain greater sustainability. Implementing digital tools and strategies of CSR is beneficial to organizations, as well as helps to develop society and the environment on a wider scale. Moreover, the research pays attention to the mediating effect of the digital transformation in eliminating the structural and technological disparities, especially when it comes to rural education and institutional establishment. It means that the CSR programs in collaboration with digital technologies can produce significant and sustainable social impact. In general, the study highlights that companies need to implement a strategic model that combines CSR activities with digital transformation to be able to ensure long-term sustainability, enhance their relationship with stakeholders, and benefit society.

REFERENCES

[1] Kane, Gerald C., G. C., Palmer, Doug, D., Phillips, Anh Nguyen, A. N., Kirby, David, D., & Buckley, Natasha, N. (2015). Strategy, not technology, drives digital transformation. MIT Sloan Management Review, 14(1), 1–25.

[2] Hess, Thomas, T., Matt, Christian, C., Benlian, Alexander, A., & Wiesböck, Florian, F. (2016). Options for formulating a digital transformation strategy. MIS Quarterly Executive, 15(2), 123–139.

[3] Verhoef, Peter C., P. C., Broekhuizen, Thijs, T., Bart, Yakov, Y., Bhattacharya, Abhi, A., Dong, John Q., J. Q., Fabian, Nicolai, N., & Haenlein, Michael, M. (2021). Digital transformation: A multidisciplinary reflection and research agenda. Journal of Business Research, 122, 889–901.

[4] Turker, Duygu, D. (2009). Measuring corporate social responsibility: A scale development study. Journal of Business Ethics, 85(4), 411–427.

[5] Glavas, Ante, A., & Kelley, Kyle, K. (2014). The effects of perceived corporate social responsibility on employee attitudes. Business Ethics Quarterly, 24(2), 165–202.

[6] Saks, Alan M., A. M. (2006). Antecedents and consequences of employee engagement. Journal of Managerial Psychology, 21(7), 600–619.

[7] Kahn, William A., W. A. (1990). Psychological conditions of personal engagement and disengagement at work. Academy of Management Journal, 33(4), 692–724.

[8] Schaufeli, Wilmar B., W. B., Bakker, Arnold B., A. B., & Salanova, Marisa, M. (2006). The measurement of work engagement with a short questionnaire. Educational and Psychological Measurement, 66(4), 701–716.

[9] Kaplan, Robert S., R. S., & Norton, David P., D. P. (1996). Using the balanced scorecard as a strategic management system. Harvard Business Review, 74(1), 75–85.

[10] Delone, William H., W. H., & McLean, Ephraim R., E. R. (2003). The DeLone and McLean model of information systems success: A ten-year update. Journal of Management Information Systems, 19(4), 9–30.

[11] Westerman, George, G., Bonnet, Didier, D., & McAfee, Andrew, A. (2014). *Leading digital: Turning technology into business transformation*. Harvard Business Review Press.

[12] Vial, Gregory, G. (2019). Understanding digital transformation: A review and a research agenda. *Journal of Strategic Information Systems, 28*(2), 118–144. https://doi.org/10.1016/j.jsis.2019.01.003

[13] Carroll, Archie B., A. B. (1991). The pyramid of corporate social responsibility: Toward the moral management of organizational stakeholders. *Business Horizons, 34*(4), 39–48.

[14] Porter, Michael E., M. E., & Kramer, Mark R., M. R. (2011). Creating shared value. *Harvard Business Review, 89*(1/2), 62–77.

[15] Bharadwaj, Anandhi, A., El Sawy, Omar A., O. A., Pavlou, Paul A., P. A., & Venkatraman, Natarajan, N. (2013). Digital business strategy: Toward a next generation of insights. *MIS Quarterly, 37*(2), 471–482.

[16] Aguinis, Herman, H., & Glavas, Ante, A. (2012). What we know and don't know about corporate social responsibility. *Journal of Management, 38*(4), 932–968.

[17] World Economic Forum. (2020). *Digital transformation: Powering the great reset*.

[18] McKinsey & Company. (2021). *The state of digital transformation*.