

Digital inclusion and rural entrepreneurship: Examining the contribution of common service centres in India

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Abstract

Digital public services have become a space for new opportunities to enhance the access to information, government services and livelihoods in rural areas. Common Service Centres (CSCs) are one of the key grassroots platforms which digital services are deployed to and also operate as local business incubators for entrepreneurship. This research aims to understand the contribution of CSCs to the promotion of digital inclusion and rural entrepreneurship. The study specifically explores the relationship between the extent of the CSC services and the digital inclusion, the relationship between digital inclusion related to the CSC services and rural entrepreneurship, and the relationship between government support and employment creation and entrepreneurial outcomes. Frequency and percentage analysis, descriptive statistics, Cronbach's alpha, Pearson correlation and regression analysis were used to analyse the primary data that is 168 supplied observations. The findings show a positive relationship between the breadth of services provided in CSC and digital inclusion ($\beta = 0.267$, $p < .001$) and between the breadth of services provided in CSC and rural entrepreneurship ($\beta = 0.204$, $p < .001$). A positive relationship was found between digital inclusion and rural entrepreneurship with a value of $r = 0.720$, $p < .001$. Rural entrepreneurship was also positively correlated with government support and training ($\beta = 0.644$, $p < .001$). The employment-generation indicator was not found statistically significant for the fifth hypothesis (rural economic-development indicator) ($p = 0.211$). The results indicate that while employment prospects depend on more than just having a CSC, the role of the CSCs in supporting rural entrepreneurship is primarily one of increased access to the digital world, availability of services and institutional support.

Keywords: Digital India, common service centres, digital inclusion, rural entrepreneurship, digital awareness, government support, employment generation, rural development

Introduction

Digital transformation has become a core element of governments' development strategies looking to enhance access to public services, lower transaction costs, and broaden access to the digital economy. However, in rural areas, the presence of digital platforms does not necessarily lead to meaningful participation in the digital. Citizens who could benefit from digital services remain at a disadvantage in the face of disparities in the connectivity, awareness, knowledge, digital device access and ability to use online services. The question is not just if digital services are there, but if people can access and utilise them practically and economically. The issue is significant for the Indian context of Common Service Centre (CSC). The Digital India programme recognizes CSCs as the closest point of access for providing electronic services in villages and connects this with digital and financial inclusion. CSCs are part of the official framework of Digital India under the Public Internet Access Programme and are defined as multi-service delivery points for government and business services. (Ministry of Electronics and Information Technology, n.d.). The entrepreneurial aspect of the CSC model is also present. Village Level Entrepreneurs (VLE) are providers of digital services locally who make a revenue from providing services. Previous studies conducted in rural telecentres in India have highlighted the importance of service portfolios, institutional support, infrastructure, business viability and demand as key factors for the sustainability of such centres

as well as the availability of technology (Naik, 2011) [3]. This means that CSCs are important for digital inclusion and rural entrepreneurship. Practical conditions also are suggested to affect access to CSCs in the literature. The challenges faced in the implementation and sustainability of CSCs were identified by Dwivedi *et al.* (2016) [1] as connectivity, digital literacy, awareness, training, infrastructure and institutional support. Recent studies in CSC access convenience have demonstrated that convenient access may be crucial to the sustainability of e-government services (Gupta & Maurya, 2020) [2]. These observations indicate that the role of CSCs should not be understood as a technology delivery intervention, but rather as a service access, digital capability and local entrepreneurial activity process. It is equally vital for the entrepreneurial aspects. A CSC can act as a local economic unit, and at the same time serve as an intermediate between citizens and digital government or commercial services. This may lead to a vicious circle, where increased digital service availability can lead to higher digital engagement, higher engagement can lead to higher demand for digital services, and higher demand can lead to greater business viability of the local CSC. Studies particularly focusing on the role of CSCs have mentioned their contribution to entrepreneurship and e-government, and have also pointed to some operational issues that can hinder outcomes (Saxena, 2013) [4]. In this context, the present research investigates the link between the service provision related to the CSC, digital inclusion

and rural entrepreneurship. CSC operators are studied, and primary survey results indicate the perceptions of entrepreneurial opportunity, income, self-employment, promotion of digital services, and rural economic development. The analysis is intentionally conducted using traditional statistical methods so that the results could be directly understood in relation with the objectives of the research and research hypotheses.

Research Problem

While CSCs are created to augment last-mile service delivery, the presence of a service centre does not necessarily imply that digital access is turning into entrepreneurial and economic results. The relationship between range of services provided via CSCs and digital inclusion and rural entrepreneurship has been explored in previous studies of CSC implementation, service quality, access convenience, and operational challenges, but still there is value in a single empirical study to examine this relationship.

Research Objectives

- To review the functions of Common Service Centres (CSCs) towards digital inclusion and enhancing access to digital and Government services in the rural areas.
- To evaluate the role of Common Service Centres (CSCs) towards women entrepreneurship, creation of employment opportunities, improvement of income and economic development of the rural population.

Research Hypotheses

H1: Common Service Centres have a significant positive effect on digital inclusion in rural areas.

H2: Common Service Centres have a significant positive effect on rural entrepreneurship.

H3: Digital inclusion facilitated through Common Service Centres has a significant positive relationship with rural entrepreneurship.

H4: Government support and training significantly influence rural entrepreneurship among CSC entrepreneurs.

H5: Employment generated by CSCs has a significant effect on rural economic development.

Review of Literature

1. Digital Inclusion and Rural Access

Digital inclusion is more than simply access to technology. It requires the hands-on skills and knowledge of accessing, comprehending and applying digital tools for meaningful social or economic purposes. This can be especially significant in areas with less urban development, where infrastructure and digital competencies may not be equal. The study of digital literacy training programmes in rural areas of India has revealed that trainings can enhance digital engagement and internet outcomes, but not all trainings are effective and social-economic factors continue to influence the outcomes (2024 study on PMGDISHA digital literacy training). The use of the centre as an intermediary between technology and the citizen is a suggestion for CSCs. Obligation for a rural resident to own all the infrastructure required for online transactions does not place an obligation on the resident to own all the infrastructure required to access it assisted, if there is a nearby service point that can provide the same. Drawing on this previous research, Dwivedi *et al.* (2016) ^[1] then situate CSCs as a method to

reduce the digital divide and define the infrastructure, literacy, awareness and support factors that influence CSCs.

2. Common Service Centres and Digital Public Services

The CSC programme was created to increase access to e-government and other digital services at the grassroots level. According to the official Digital India description, CSCs are strategic points of access to the electronic services and are part of the network of public internet access. The model is, therefore, also applicable for e-governance, digital inclusion and citizen access. The current study is done on the factors affecting the continuation of the use of e-government services via CSCs, and found that access convenience plays a role. The study also shows that the availability and functionality of CSC are important when citizens have to rely on centres to access some services which they might be able to access on their own. In line with the current study that focuses on service breadth and accessibility as elements of the CSC environment.

3. CSCs and Rural Entrepreneurship

CSCs are not like regular public service counters because they are entrepreneurial businesses. Local operators are responsible for providing service and meeting callers' needs while also earning enough to cover their expenses. Naik (2011) ^[3] pointed out the business-model issue of rural telecentres and emphasized the need to focus on government services, partnerships, service portfolios, infrastructure, and local markets for sustainability. The same can be said of the CSC initiative as discussed by Saxena (2013) ^[4] as a link between e-government and entrepreneurship in rural India. Recent research on rural digital entrepreneurship continues to focus on factors related to the sustainability of the use of CSC, such as institutional support, digital skills, operational challenges and entrepreneurial orientation. The following research strands lend themselves to the use of CSCs as a research object both as a delivery channel and as a local business enterprise.

4. Government Support and Training

The relevance of government support lies in the fact that the operators of a CSC are part of a service ecosystem where a number of services, platforms, rules and training are influenced by the activity of the public authorities. Training can help build operators' capacity to operate digital platforms and adapt to evolving service needs. Previous studies have pointed out insufficient training and support, connectivity issues and weak institutional support as some of the challenges in the effective functioning of CSCs (Dwivedi *et al.*, 2016) ^[1]. Citizens are also part of the scope of training. Previous evidence of digital literacy programmes in rural areas suggests that digital skills can be enhanced through training, but that socioeconomic factors can influence the impact of digital skills in the real online world. This implies the institutional support has the potential to affect both the demand and supply side of CSC services and its ability to bring benefit to rural users.

5. Employment and Rural Economic Development

An important aspect of digital service centres can be employment, which is frequently cited as one of the possible local benefits. A CSC may provide direct employment opportunities within the centre, and may also help indirectly

by providing financial, educational, administrative and business services. But creating jobs need not be equal to economic development. Demand, the nature of local enterprise, infrastructure, finance and the variety of services provided can also influence outcomes in rural economies. This is relevant to the interpretation of the present research. The questionnaire specifically addresses the question of whether the introduction of operating a CSC has led to job creation, the number of people employed and whether CSCs have helped with rural economic development. The analysis thus considers the creation of employment as a measurable explanatory factor, not as a given condition of them being the same.

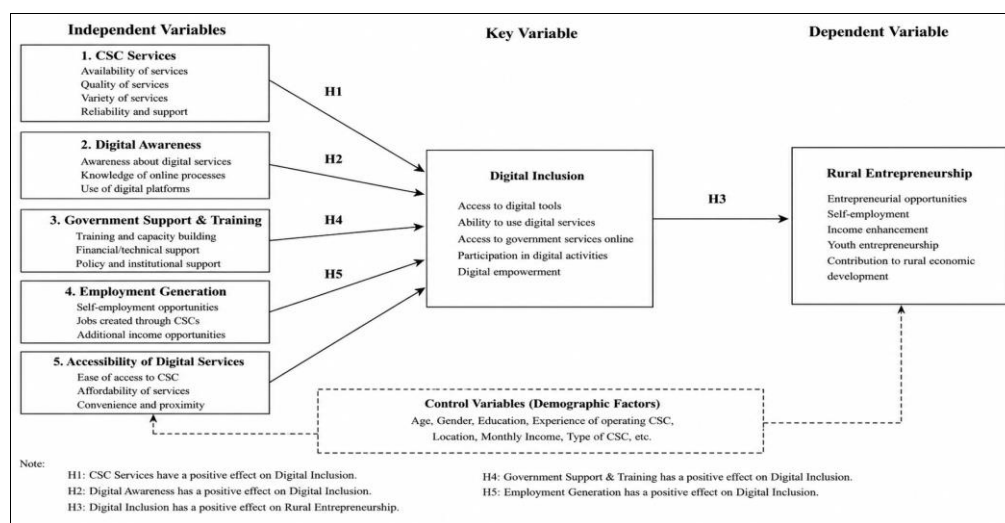
6. Research Gap

It is well documented in the existing literature that CSCs have the potential to support digital access in rural areas, e-government service delivery, and local entrepreneurship. Meanwhile, research has found barriers related to

connectivity, awareness, digital literacy, training, infrastructure and business sustainability. The only thing that's helpful here is a simple empirical analysis of the links between service breadth and digital inclusion with entrepreneurial outcomes for CSC operators in rural areas. The present study fills this gap by integrating these elements and testing their relationships with primary data from the survey.

Conceptual Framework

The conceptual framework based on the study suggests that the role of CSCs can be discussed in terms of the following observable dimensions: the scope of services, digital awareness, government support and training and employment opportunities and access to digital services. Digital inclusion is considered as the key outcome of the CSC service provision, and rural entrepreneurship as the key economic outcome.



Conceptual relationship:

CSC Service Breadth + Digital Awareness + Government Support and Training + Employment Generation + Accessibility of Digital Services → Digital Inclusion → Rural Entrepreneurship. In this study, a conventional statistical analysis was used, and the hypotheses were tested by the corresponding observable measures, not by a latent-variable structural model.

Research Methodology

1. Research Design

The study uses a quantitative and a cross sectional research design. The primary data collection was based on a structured questionnaire that focused on the services of the CSC, digital inclusion, rural entrepreneurship. The instrument contained general information about the respondent, information about the nature of CSC services,

eight statements on a five-point Likert scale regarding entrepreneurship, promotion of digital services, support provided by the government, rural economic development and self-employment.

2. Instrument

In section A, gender, age, educational qualification, years of operation of the CSC and location of the CSC were captured. Services captured included service types, number of customers served, employment created, and number of people employed and aware of digital services. The items on Section C were rated on a 5-point scale from 1 = Strongly Disagree to 5 = Strongly Agree. There was a multiple-response item on challenges, and an open-ended question asking for suggestions for enhancing the effectiveness of the CSC, in the questionnaire.

3. Variables and Operationalisation

Variable	Operational measure used in analysis	Role
CSC service breadth	Number of service categories reported by the respondent	Independent
Digital awareness	No = 1; To some extent = 2; Yes = 3	Independent/descriptive
Digital inclusion	Mean of Statements 4 and 7	Outcome/predictor
Government support	Statement 5	Independent
Rural entrepreneurship	Mean of Statements 1, 2, 3, 6 and 8	Dependent
Employment opportunity	No = 0; Maybe = 0.5; Yes = 1	Independent
Rural economic development	Statement 6	Outcome for H5

4. Sample and Data

The data supplied consists of 168 observations (N = 168). All observations supplied were kept in the working analysis file. Structural consistency and valid Likert coding of the data were carried out prior to analysis. The provided work book was checked for data integrity and repeated response pattern was found. The number of observations N is requested and N = 168, so the results of the statistical analysis should be interpreted as the results for the supplied file with N = 168. To ensure data accuracy, independent verification with the original export of the survey is recommended prior to submission to a journal, especially for data to be audited from the outside.

5. Statistical Techniques

The study uses conventional statistical techniques. Data on the characteristics of respondents and CSC were analyzed through the process of frequency and percentage. The means and standard deviations were computed for principal Likert measures. Cronbach's alpha was used to assess internal consistency of the multi-item indices. Pearson correlation was used to examine bivariate relationships. The five hypotheses were tested using simple regression and a supplementary multiple regression model was estimated to test the combined impact of the principal predictors on rural entrepreneurship.

Results and Analysis

1. Respondent Profile

Variable	Category	Frequency	Percentage
Gender	Female	104	61.9
Gender	Male	64	38.1
Age group	26 – 35 years	88	52.4
Age group	Below 25 years	52	31.0
Age group	36 – 45 years	16	9.5
Age group	Above 45 years	12	7.1
Educational qualification	Graduate	84	50.0
Educational qualification	Post Graduate	44	26.2
Educational qualification	PUC / 12th	28	16.7
Educational qualification	SSLC / 10th	8	4.8
Educational qualification	Others	4	2.4
Years operating CSC	Less than 2 years	64	38.1
Years operating CSC	2 – 5 years	48	28.6
Years operating CSC	6 – 10 years	40	23.8
Years operating CSC	Above 10 years	16	9.5
Location	Village	80	47.6
Location	Taluk	68	40.5
Location	Semi-urban area	20	11.9

The profile indicates that women constitute 61.9% of the observations and men 38.1%. The largest age category is 26–35 years (52.4%), followed by below 25 years (31.0%). Graduates account for 50.0% of the observations, while

postgraduates account for 26.2%. Half of the CSCs are located in villages and 40.5% are located in taluk areas. The sample therefore reflects a substantial concentration of relatively young and formally educated CSC operators.

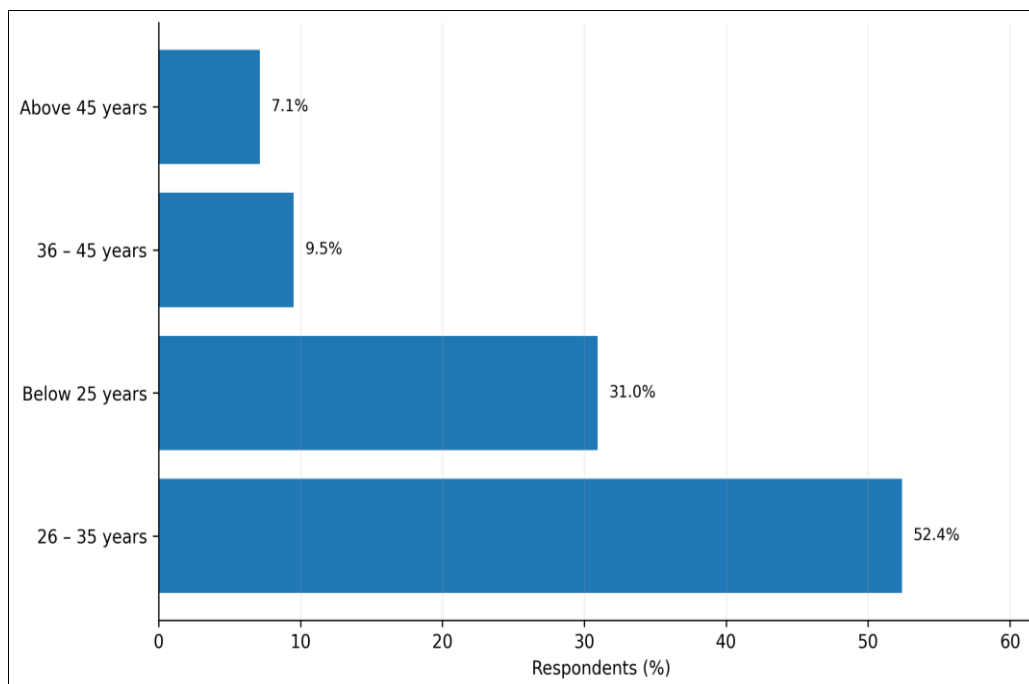


Fig 1: Age profile of csc operators

2. Digital Awareness and Employment

Measure	Category	Frequency	Percentage
Digital awareness	Yes	124	73.8
Digital awareness	To some extent	36	21.4
Digital awareness	No	8	4.8
Employment opportunities	Yes	88	52.4
Employment opportunities	Maybe	48	28.6
Employment opportunities	No	32	19.0

A large majority of respondents (73.8%) reported that CSCs had increased digital awareness among rural people, while 21.4% reported an increase to some extent. Only 4.8% selected no.

Regarding employment opportunities, 52.4% reported that operating a CSC had created employment opportunities in the area, while 28.6% selected 'Maybe' and 19.0% reported no.

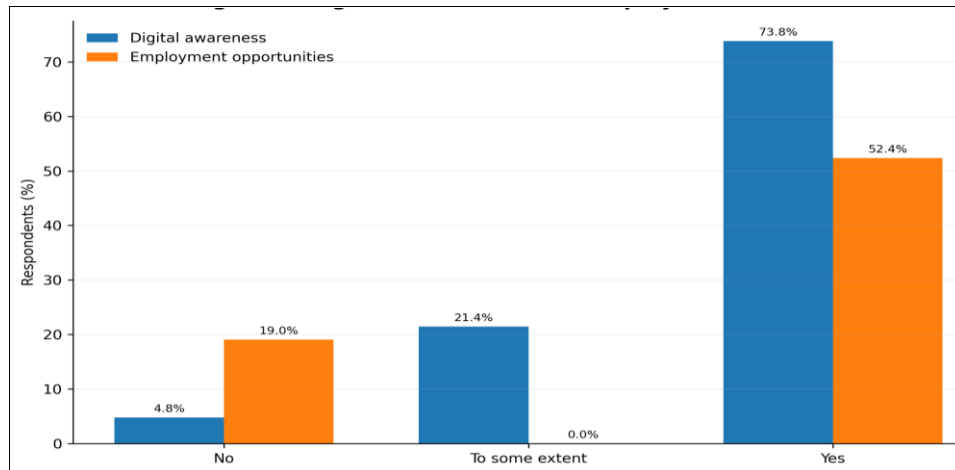


Fig 2: Digital Awareness and Employment outcomes

3. Descriptive Statistics of Likert Statements

Item	Statement	Valid N	Mean	SD
1	CSC has created new entrepreneurial opportunities in rural areas.	164	3.439	1.312
2	The CSC model encourages youth to become entrepreneurs.	164	3.439	1.152
3	Operating a CSC has improved my income level.	160	2.900	1.161
4	CSCs help in promoting digital services in rural areas	164	3.756	1.229
5	Government support and training have helped in running CSCs effectively.	168	3.310	1.083
6	CSCs contribute to rural economic development	164	3.293	1.218
7	CSCs help rural people access government services easily	168	3.762	1.273
8	The CSC initiative has improved self-employment opportunities in rural area	168	3.571	1.297

The highest mean score was recorded for the statement that CSCs help rural people access government services easily ($M = 3.762$, $SD = 1.273$), followed closely by the statement that CSCs help promote digital services in rural areas ($M = 3.756$, $SD = 1.229$). The lowest mean was observed for the

statement that operating a CSC improved the respondent's income level ($M = 2.900$, $SD = 1.161$). This pattern suggests that respondents perceive the public-service and digital-access functions of CSCs more strongly than direct income improvement.

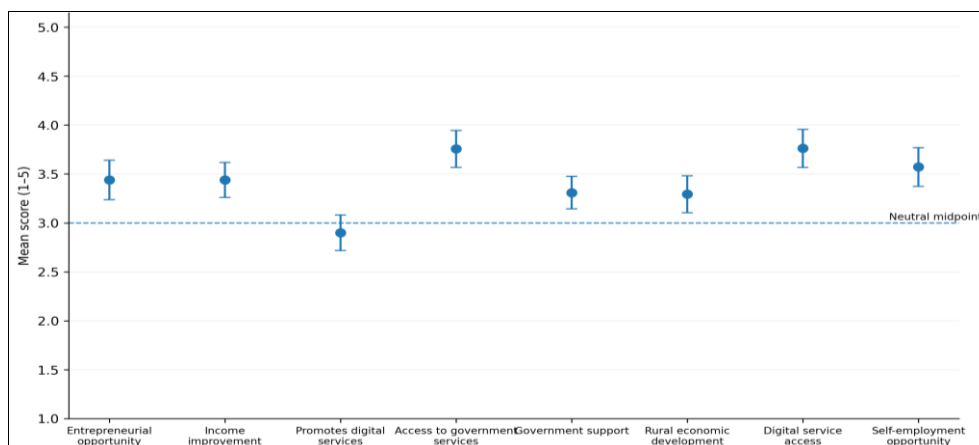


Fig 3: Mean Scores and 95% Confidence Intervals for Study Statements

4. Reliability Analysis

Construct	Items	Cronbach's alpha	Valid cases
Rural Entrepreneurship	Statements 1, 2, 3, 6 and 8	0.891	156
Digital Inclusion	Statements 4 and 7	0.788	164

The rural entrepreneurship index produced a Cronbach's alpha of 0.891, indicating strong internal consistency. The two-item digital inclusion index produced an alpha of 0.788, which

indicates acceptable internal consistency for an exploratory two-item measure. The reliability results support the use of the two indices for subsequent correlation and regression analysis.

5. Correlation Analysis

Variable	N	Pearson r with Rural Entrepreneurship	p-value
Digital Inclusion	168	0.800	0.0000
CSC Service Breadth	168	0.416	0.0000
Government Support	168	0.683	0.0000
Employment Opportunity	168	0.102	0.1862
People Employed	164	-0.025	0.7533

Digital inclusion was strongly and positively associated with rural entrepreneurship ($r = 0.800$, $p < .001$). CSC service breadth also showed a positive relationship ($r = 0.416$, $p < .001$), as did government support ($r = 0.683$, $p < .001$). The employment-opportunity

indicator was not statistically significant in the bivariate relationship with rural entrepreneurship ($r = 0.102$, $p = 0.186$). The number of people employed in the CSC was also not significant ($r = -0.025$, $p = 0.753$).

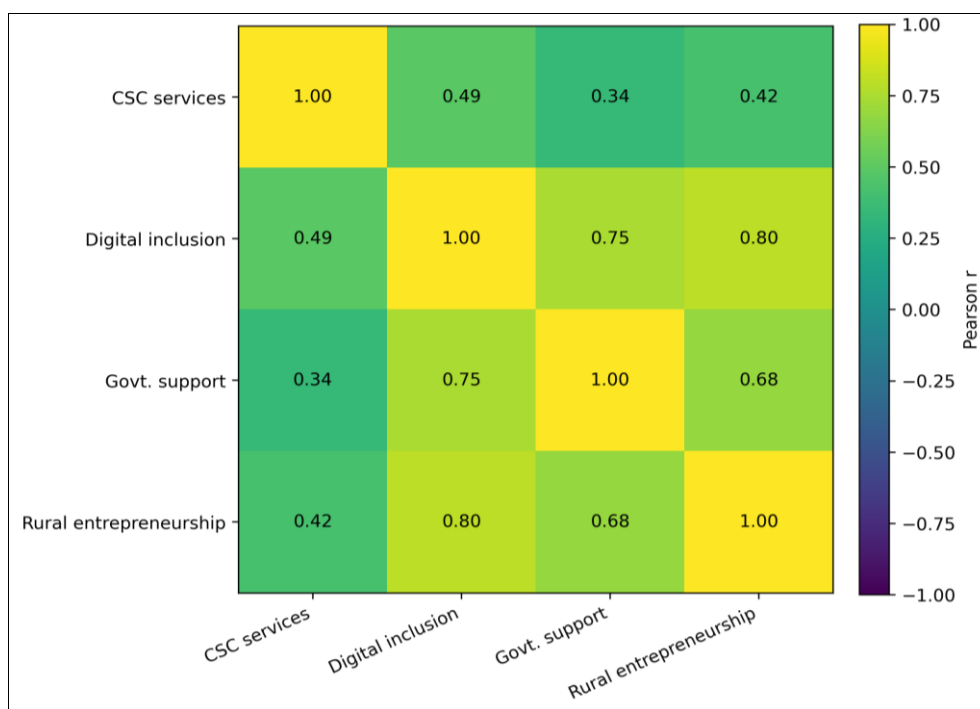


Fig 4: Correlation Metrix of Principal Study Variables

6. Regression Analysis and Hypothesis Testing

Hyp.	Relationship	β	t	p	R ²	Decision
H1	CSC Service Breadth → Digital Inclusion	0.267	7.238	0.0000	0.240	Supported
H2	CSC Service Breadth → Rural Entrepreneurship	0.204	5.891	0.0000	0.173	Supported
H3	Digital Inclusion → Rural Entrepreneurship	0.720	17.171	0.0000	0.640	Supported
H4	Government Support → Rural Entrepreneurship	0.644	12.059	0.0000	0.467	Supported
H5	Employment Opportunity → Rural Economic Development	-0.306	-1.254	0.2115	0.010	Not supported

The regression results provide evidence in favour of the first four hypotheses. CSC service breadth significantly predicted digital inclusion, explaining approximately 24.0% of its variance. CSC service breadth also showed a significant

positive effect on rural entrepreneurship, although the explained variance was more modest at 17.3%. Digital inclusion had the strongest bivariate explanatory relationship with rural entrepreneurship, with a simple

regression R^2 of 64.0%. Government support also showed a significant positive association with rural entrepreneurship. In contrast, employment opportunity did not significantly

predict the separate rural economic-development item used for H5.

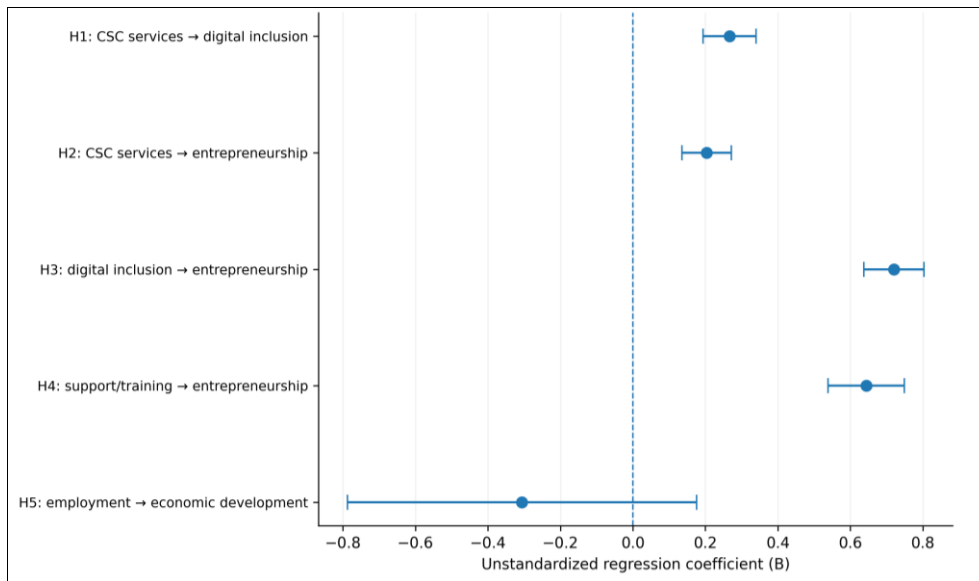


Fig 5: Refression Effects and 95% Confidence Intervals

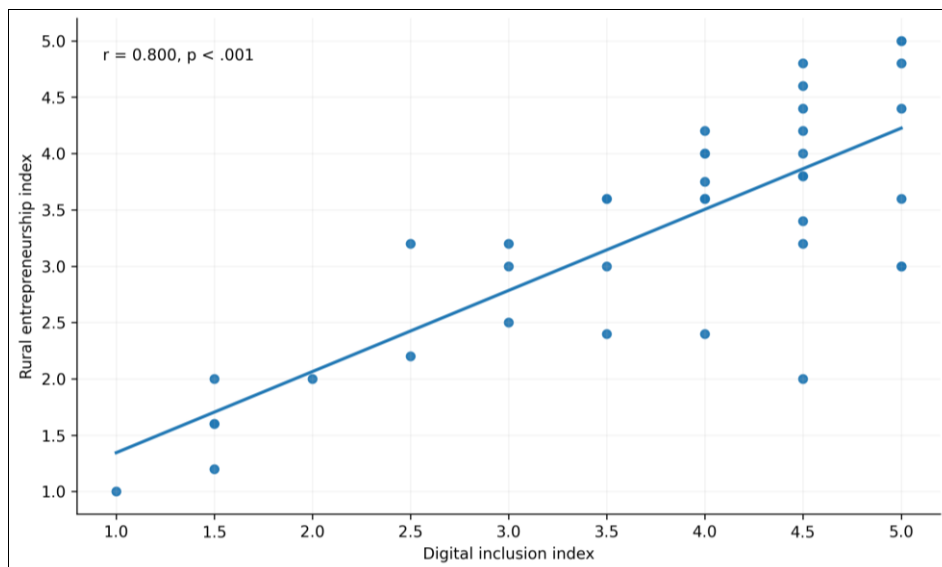


Fig 6: Relationship Between Digital Inclusion and Rural Entrepreneurship

7. Supplementary Multiple Regression

A supplementary multiple regression was estimated with rural entrepreneurship as the dependent variable and CSC service breadth, digital awareness, government support, employment opportunity and digital inclusion as predictors. The model was statistically significant, $F(5, 162) = 132.91$, $p < .001$, with $R^2 = 0.804$ and adjusted $R^2 = 0.798$.

Predictor	B	t	p
CSC Service Breadth	0.008	0.420	0.6748
Digital Awareness	0.430	4.546	0.0000
Government Support	0.124	2.364	0.0192
Employment Opportunity	0.559	4.330	0.0000
Digital Inclusion	0.753	13.640	0.0000

Within the combined model, digital inclusion remained the strongest positive predictor of rural entrepreneurship ($B = 0.753$, $p < .001$). Digital awareness, government support and

employment opportunity also showed positive coefficients, while CSC service breadth did not remain statistically significant after the other predictors were entered simultaneously. This difference between the simple and multiple regression results suggests that part of the apparent effect of service breadth may operate through related digital and institutional conditions.

Discussion

The results show that the impact of CSCs on rural development is most felt in access to and availability of services and digital access. The results of significant positive correlation between CSC service breadth and digital inclusion supports H1 and aligns with the vision of CSCs in the public internet access framework of Digital India. It also corresponds to the previous studies on barriers to access digital and e-governance services in rural areas, which suggested CSCs as barriers (Dwivedi *et al.*, 2016)^[1]. Also at

the bivariate level, the second hypothesis is supported. Broadening the range of CSC services was linked with more positive rural entrepreneurial outcomes. This is believable as a discovery because the more services you offer, the more opportunities you will have for customer engagement, transactions and revenues. It also follows the literature that considers rural telecentres to be a hybrid of service and entrepreneurial units rather than just public infrastructure (Naik, 2011; Saxena, 2013) ^[3, 4]. Digital inclusion and rural entrepreneurship have the highest link in the study. A strong positive correlation of $r = 0.720$ suggests that a higher score on the digital inclusion indicator is related to higher scores for the entrepreneurial outcomes indicator. The outcome confirms the main idea of the paper: economic value of CSCs can be created not only because of the physical presence of a centre, but also in terms of the digital engagement and use of services by a centre. Both government support and training have positive relationship with rural entrepreneurship. The findings showed that the fourth hypothesis was supported and strengthened the view of the importance of institutional support for the CSC ecosystem. Previous studies have pinpointed insufficient training, support and infrastructure as barriers for sustainability of the CSC (Dwivedi *et al.*, 2016) ^[1]. Presently, it appears that support and training are not tangential matters and they are linked to the operators' perception of the entrepreneurial contribution of CSCs. The 5th hypothesis is rejected. No strong connection exists between employment opportunity and the individual measure of rural economic development provided. This is significant because it avoids the over-statement of the CSC model. Having one or more jobs does not automatically lead to wider rural economic development at any CSC. The role of a broader mix of digital access, enterprise demand, financial resources, infrastructure, and market conditions and institutional support in driving economic development is likely to be crucial. This is confirmed by the challenge responses. The problems reported most often were low

commission on services (100 observations), competition (96), poor internet connectivity (84), and lack of awareness among villagers (80); and technical issues. These issues are similar to some of the issues that have been found in previous CSC studies, including connection, awareness, trainings, and the cost and sustainability of centres.

Implications

1. Policy Implications

CS Centres should be viewed as elements of local digital infrastructure and as business entities, in terms of policy support. While increasing the scope of useful service is important, it is also essential to have reliable connectivity, consistent institutional support, and regular operator training. Not only should employment be linked to the rural economic-development measure, but policies should also ensure that CSCs should be linked to broader entrepreneurship, finance, skills and local enterprise programmes.

2. Managerial Implications for CSC Operators

CSC operators have the opportunity to consolidate their entrepreneurial role by diversifying services related to the operation, enhancing customer support and keeping an eye on government and commercial digital services. Digital inclusion and rural entrepreneurship are closely linked, meaning that digital literacy and assisted digital access should be a component of the value proposition of the centre and not a secondary business.

3. Implications for Rural Communities

The rural users' value of the CSCs is not limited to online transactions. Centres can assist residents to increase their confidence in the use of digital services and gain access to government programs and to opportunities that demand digital interaction. To deepen awareness of the villagers therefore, the existing digital infrastructure can be improved.

Appendix A: Hypothesis Testing Summary

Hypothesis	Finding	Decision
H1	CSC service breadth significantly predicts digital inclusion.	Supported
H2	CSC service breadth significantly predicts rural entrepreneurship.	Supported
H3	Digital inclusion is significantly and positively related to rural entrepreneurship.	Supported
H4	Government support and training significantly predict rural entrepreneurship.	Supported
H5	Employment opportunity does not significantly predict the rural economic-development item.	Not supported

Appendix B: Data-Integrity Note

The working analysis file retains $N = 168$ as requested. During preparation, repeated response patterns were observed in the supplied workbook. No respondent answers were fabricated or altered to create variation. Before submitting the article to a journal, the author should verify the 168 observations against the original survey platform/export and retain the original raw file as the audit source.

Conclusion

This study explored the contribution of Common Service Centre towards digital inclusion and rural entrepreneurship through traditional statistics with 168 observations supplied. The evidence suggests a positive link between the service breadth of CSC and the digital inclusion and rural

entrepreneurship. Digital inclusion, in turn, is positively correlated with the entrepreneurial outcomes in rural areas. The relevance of government support and training is also found in the positive association that it has with rural entrepreneurship. These findings reinforce the notion that CSCs can be seen as local mechanisms in which access to the computer and entrepreneurial activity complement each other. Concurrently, the lack of a significant association between employment and economic development highlights the importance of not assuming that generating employment through CSC is the only way to achieve broader rural economic expansion. The context of CSCs' activities is important. Various aspects of the model's sustainability and developmental contribution can be related to connectivity, awareness, service commission, competition, and technical reliability/institutional support. Overall, the research

indicates that the role of CSCs for rural entrepreneurship is most successful if they are able to offer a range of digital services that are accessible and have an adequate level of variation, and that they operate in an institutional setting that is somewhat supportive. The findings thus call out for continued focus on digital inclusion, capability of the operators and service diversification and sustainable business conditions in the Digital India.

Limitations and Future Research

There are some limitations to this study. Firstly, the design was cross sectional, so the relationships observed should not be viewed as causal. Second, the principal entrepreneurial outcomes are self-reported by the respondents, and thus can experience common-method or self-report biases. Third, some variables are only measured by a single questionnaire item or categorical indicator, reducing the precision with which the constructs are measured. Fourth, the data provided should be checked against the original survey-export records prior to external publication, since non-singular responses were observed during data preparation. Use of independently verified respondent-level data, larger samples and geographically representative samples, and use of longitudinal study designs and objective measures of income and employment can contribute to the evidence base for future research. Comparative research between districts and/or states might also determine if infrastructure, institutional supports, and local market conditions affect the relationship between CSCs, digital inclusion, and rural entrepreneurship.

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