



Contents lists available at [DergiPark](https://dergiPark.com)

Journal of Travel and Tourism Research

ISSN: 1302-8545

journal homepage: <https://site.adu.edu.tr/jttr>



Measuring Self-Reliant Tourism Development (SRTD): Scale Development and Validation

Ayush¹

Amit Gangotia²

¹Research Scholar, Department of Tourism and Travel Management, Central University of Jammu, ORCID ID: 0000-0001-8114-8194, 0150620.ttm@cuajammu.ac.in

²Prof., Department of Tourism and Travel Management, Central University of Himachal Pradesh, ORCID ID: 0000-0002-7025-4589, amitgangotia@hpcu.ac.in

Gönderilme Tarihi / Submitted: 12.05.2025

Düzeltilme / Resubmitted: 28.04.2026

Kabul / Accepted: 03.06.2026

Abstract

Atmanirbhar Bharat is a Government of India initiative to foster self-reliance by promoting domestic manufacturing, innovation, and economic growth, reducing dependence on foreign resources. Since tourism is a major driver of the Indian economy, it is important to create a standardized scale to measure self-reliance within this sector, thereby addressing a gap in existing literature. The study adopts a systematic research approach involving item generation, pilot testing, exploratory factor analysis (EFA), and confirmatory factor analysis (CFA) to ensure accuracy and reliability. The research addressed a gap by developing a conclusive, reliable and valid scale to measure Atmanirbharta (self-reliance) in tourism. The findings indicate that self-reliance in tourism is a multifaceted concept that integrates various societal and governance aspects. This research contributes originality by proposing a comprehensive conceptual framework tailored to the Indian context, overcoming limitations of previous studies that lacked structured measurement tools. Overall, the study provides a significant foundation for future research and policy development in sustainable and self-reliant tourism.

Key Words: Empowerment, Atmanirbharta, Self-Reliance Tourism Development, Scale Development, Economic Growth, Sustainable Well-being.

INTRODUCTION

India has progressed a lot since the implementation and initiation of Globalization in 1991. Indian society is changing drastically after urbanization and globalization but Covid 19 pandemic became a challenge for India and other countries which changed the economic and social dynamics (Mantri et al., 2020). The government has introduced various initiatives under the Atmanirbhar Bharat Abhiyaan (Self-reliance) to support different sectors of the economy, including cottage industries, MSMEs, laborers, and middle-class individuals, these initiatives are crucial for promoting economic growth and self-reliance in the country (Varma and

Balachandran, 2021). Atmanirbhar Bharat embodies India's vision for self-reliance and economic growth, emphasizing key sectors, green technologies, and energy security, with a strong focus on tourism and culture. Celebrities and industry leaders have also been promoting the idea of Atmanirbharta in various contexts, such as promoting tourist destinations like Lakshadweep (NDTV.com, 2024). Partnerships between the government and organizations like Visa aim to skill youth for the tourism industry, aligning with the goal of self-reliance (www.ETGovernment.com, 2024). Atmanirbharta is gaining traction across sectors, including tourism, with significant implications for the industry's long-term growth and sustainability. Empowerment theories provide the framework for building confidence, skills, and decision-making power, while Atmanirbharta focuses on self-sufficiency and reducing dependence on external resources. Psychological empowerment focuses on building self-confidence and motivation (Joo et al., 2020), social capital theory emphasizes the role of community networks, structural empowerment highlights access to resources and opportunities (Ansari et al., 2012), and asset-based community development (ABCD) leverages local strengths to create sustainable tourism enterprises (Stoltenberg Bruursema, 2015). These theories collectively contribute to Atmanirbharta by ensuring that local stakeholders actively participate in and benefit from tourism development.

However, despite the growing policy emphasis and theoretical grounding, there remains a critical gap in empirical research particularly the absence of a standardized and validated measurement tool to assess how empowerment contributes to self-reliance in the tourism context. Existing studies largely discuss empowerment and Atmanirbharta conceptually (Kirk, 2005; Sharma & Joshi, 2019; Alam et al., 2021), but fail to operationalize these constructs in a measurable form. This limitation restricts the ability of researchers and policymakers to evaluate the effectiveness of tourism-based interventions, compare outcomes across regions, and design evidence-based strategies for community development.

Therefore, by employing Factor Analysis this study develops a reliable and valid scale to measure the role of empowerment in fostering Atmanirbharta within tourism dependent communities. The study conceptualizes Atmanirbhar Bharat (Self-reliant India) not merely as a policy slogan, but as a practical and operational framework through which local communities can leverage indigenous resources, traditional knowledge, and tourism products to achieve economic empowerment and self-reliance.

BACKGROUND OF THE STUDY

Atmanirbharta: A Pathway to Self-Reliance and Community Development

Empowerment theories in tourism have gained significant attention in recent years as a means to promote sustainable tourism development. Kirk (2005) discusses the empowerment of local communities in the context of sustainable tourism development, emphasizing the importance of considering social, cultural, and economic aspects. Boley and McGehee (2014) further strengthen the theoretical foundation of empowerment in tourism by examining resident attitudes toward tourism. Joo et al. (2020) test the empowerment theory in a tourism context, focusing on how residents' perceived knowledge of tourism influences their empowerment and subsequent political action. To achieve Atmanirbharta (Self-reliant) Sharma and Joshi (2019) emphasized the importance of

skill development and entrepreneurship across five key pillars: Economy, infrastructure, Technology, demography, and demand. Dubey and Sahu (2020) focused on the impact of the COVID-19 crisis on MSMEs and the economic relief package. Pulicherla et al. (2022) discussed sustainable green growth in the manufacturing sector as a complement to the Make in India campaign, highlighting the importance of environmental policies in India's industrial development. Alam et al. (2021) examined self-reliance and resource management for sustainable development in India during the COVID-19 pandemic, they also emphasized the importance of Atmanirbharta in addressing economic challenges and promoting practical advancements in the post-pandemic period. The literature on empowerment theories in tourism emphasizes the need to understand and support community empowerment for sustainable tourism, taking into account social, cultural, and economic factors in different settings. Empowerment theories provide the framework for capacity-building, participation, and access to resources however, Atmanirbharta is the outcome where communities gain self-sufficiency in tourism.

Economic Empowerment

Economic empowerment is a critical component of development, several studies have explored the various dimensions and impacts of economic empowerment in different settings. Kasturi (1997) highlighting the importance of empowering women economically in South Asia. Perezniето and Taylor (2014) examined concepts and methods for measuring economic empowerment of females, offering insights into monitoring and evaluation procedures. Furthermore, Strzelecka et al. (2017) examined non-economic dimensions of empowerment and resident support for tourism in rural Eastern and central Europe. Surya et al. (2020) analyzed the impact of community economic empowerment on natural resource conservation in Indonesia, emphasizing the link between economic empowerment, community capacity building, and environmental sustainability. Perezniето and Taylor (2014) analysed 70 assessments of development programs to measure female economic empowerment, with an emphasis on monitoring, evaluation, and learning approaches. Tian et al. (2023) found that while tourism offers economic benefits to local residents, it also causes disempowerment, as villagers often lose decision-making control to external authorities, leading to power imbalances among the government, developers, and communities. Collectively these studies enhance understanding of economic empowerment, emphasizing inclusive economic development across populations and sectors.

Infrastructural Empowerment

Infrastructure development is vital for nations' economic and social success (Josa and Aguado, 2019). Infrastructure development is widely recognised important for sustainable economic growth (Srivastava et al., 2023). The availability of reliable and efficient infrastructure, such as transportation systems, communication networks, and utilities, may have a substantial influence on a country's capacity to attract investment, assist economic growth, increase competitiveness, and promote inhabitants well-being. Several studies have focused on developing scales and tools to effectively measure different aspects of infrastructural development. Onuigbo (2008) discussed the use of modern surveying techniques in national infrastructural development, specifically focusing on roads. Greiner et al. (2021) examined the relationship between rural roads and infrastructural investments in Kenya.

Community Empowerment

Community empowerment, explored in various studies, is addressed by Hess (2014) through steps for empowerment via community involvement and by Fawcett et al. (1995) through collaborative partnerships and activities. Ahmad and Abu Talib (2016) indicate that individuals with a stronger sense of community tend to have better access to resources and that their involvement can significantly support local area development. Peterman (2000) explores the promise and limitations of grassroots involvement in community-based development and neighbourhood planning, highlighting the problems of empowering communities. Laverack (2006) reviews how empowerment can enhance health outcomes, while emphasizing on key areas such as participation, resource mobilization, and local leadership. Ramos and Prideaux (2014) emphasizes the importance of measuring community empowerment and stakeholder involvement in indigenous tourism in the Mayan rainforest, while Stone (2015) highlights community-based tourism (CBT) as an effective approach for both environmental protection and community development. Rahajeng and Suprpto (2019) investigates the impact of local entrepreneurship on community empowerment in developing tourism villages, the research highlighting the essential role entrepreneurship plays in empowering communities for tourism development. Additionally, Yildirim and Esen (2023) examines role of social entrepreneurship and community involvement in managing tourist villages, the study highlights community empowerment efforts in Babagan village, Indonesia, particularly through the creation of an entrepreneurial community and the establishment of a batik tourism village center. Adebayo and Butcher (2023) explored stakeholders' views on community empowerment in Nigeria's tourism industry, highlighting the role of Local Government Tourist Committees (LGTCs) in addressing gaps in genuine empowerment. These findings underscore the importance of community empowerment for self-reliance.

Psychological Empowerment

Several research have focused on the psychological empowerment within communities. McMillan (1999) investigated the psychological empowerment of members in community, observing that it is strongly linked to involvement levels, sense of community, and a positive organizational climate. According to Clarke (2001), training programs play a crucial role in empowering community by measuring psychological empowerment through perceived control, self-efficacy, and self-esteem. Jeong et al. (2018) investigated how a sense of belonging influences the link between psychological empowerment and local citizens' engagement in tourism policies. Rahayu (2018) measured female residents' perception of empowerment through the Resident Empowerment Through Tourism Scale (RETS) in Desa Wisata Pentingsari. Wardhani and Susilowati (2021) analysed the ongoing women empowerment in tourism activities at Indrayanti Beach, focusing on psychological, social, economic and political dimensions. These studies collectively highlight the importance of community empowerment through tourism and the various factors that contribute to it.

Political Empowerment

The literature on the political empowerment of communities through tourism highlights the importance of local empowerment in various aspects. Hidayat et al. (2017) discussed that political empowerment is at the lowest

level in community empowerment in Plempoh ethnic Tourism Village. Movono and Dahles (2017) examines how tourism-based businesses empower women in Fijian communities economically, psychologically, socially, and politically. Gebremariam (2018) discusses the challenges and opportunities related to community-based eco-tourism in the Maichew Cluster, emphasizing the importance of economic and political empowerment. Joo et al. (2020) investigates how the residents' understanding of tourism and perceptions of social, psychological, and political empowerment drive actions related to tourism development. Rachmawati et al. (2022) investigates how tourism empowers rural communities in Indonesia, highlighting the significance of local empowerment for sustainable tourist development.

Social Empowerment

Various researches have examined the social empowerment of communities. Achmad (2023) studied community empowerment via tourist village development and its impact on social and cultural resilience. Yang et al. (2020) emphasised that the willingness and ability of ethnic village people to engage are essential variables in tourism's role for poverty alleviation. Sapkota (2020) examined community-based homestay tourism as a means of community empowerment in Nepal, emphasizing the potential of such tourism initiatives to strengthen and empower local communities. Sarr et al. (2021) studied the empowerment of rural populations and social representations in Senegal's Langue de Barbarie National Park. They proposed personalised types of empowerment based on social representations. Mandulangi (2021) examined the empowerment of local communities through social capital action coordination in tourist development on Bunaken Island, emphasising the significance of maximising local community empowerment. Lastly, Rachmawati et al. (2021b) used a quantitative technique to analyse the link between community participation and social empowerment from tourism development. Collectively, these studies demonstrate the importance of social empowerment in the development of sustainable tourism.

Technological Empowerment

Technological empowerment is a crucial aspect of various fields, including smart cities, business competitiveness, sustainable development, environmental challenges, computer networks, green innovation, education, and rural entrepreneurship. Wang and Wu (2021), emphasizing the role of technology in enhancing social inclusion and empowerment. Lennie (2002) discusses empowering rural women through access to ICTs in a feminist action research project, highlighting technology's potential to enhance empowerment and inclusivity. According to Pires et al. (2006), increased acceptance of information and communication technology (ICT) is transferring market control from suppliers to consumers, leading to a stronger consumer empowerment. Meisuri et al. (2023) examined how the technological revolution affects learning, including teacher and student views, technology integration, motivation, involvement, and impediments to adoption in education. Senadjki et al. (2023); Ma (2023) discusses the use of AI in many areas to empower technology and drive business development. Rahman et al. (2023) studied the significance of mobile phones in empowering rural women entrepreneurs and enhancing their decision making power. Collectively, these studies demonstrate the importance of Technology in empowerment and development.

Demand and Supply

The tourism supply chain (TSC) is a complex network that encompasses various entities involved in the production, distribution, and consumption of tourism products and services. Cooper and Ellram (1993) developed a framework to distinguish between traditional and supply chain management systems, emphasizing their impact on purchasing and logistics. Wieland (2021) challenges traditional reductionist views of supply chain management by proposing a social-ecological system perspective, advocating for a more dynamic approach to managing the supply chain. Golgeci and Kuivalainen (2020) investigates how absorptive capacity, social capital and marketing-supply chain alignment enhance supply chain resilience and performance. Venkatesh et al. (2020) introduce a system that integrates Internet of Things (IOT), blockchain, and big data analytics to enhance transparency in monitoring supply chain social sustainability, they analyze system implementation costs and potential challenges to ensure efficient and effective monitoring. Nandi et al. (2021) highlight redesigning supply chains to improve transparency, resilience, and sustainability, emphasizing lessons from COVID-19 for future crisis management. These studies advocate for innovative and sustainable supply chain practices in tourism.

Scale Adaption

Based on the Literature review, Table 1 shows the supporting studies and the studies from where the scales are adopted to measure the Pillars of Atmanirbharta.

Table 1. Scale adaption

Pillars of Atmanirbharta	Supporting Studies	Scale adapted From
Economy	Tian et al. (2023); Rachmawati et al. (2021a); Abdullah and Said (2014); Kundu (2012)	Items - E1, E2, E3, E4, E5, E6, E7, E8 and E9 are inspired from Jacobs and Slaus (2010)
Pillars of Atmanirbharta	Supporting Studies	Scale adapted From
Infrastructure	Boers and Cottrell (2007); Stojanovic et al. (2019); Pascu (2012); Firoiu and Croitoru (2013)	Items - I1, I2, I3 and I4 taken from Oswald et al. (2011)
Demography/Community Empowerment	Xu et al. (2014); Han et al. (2014); Saxena et al. (2007); Hidayat et al. (2017)	Items - C1, C2, C3, C4, C5, C6 and C7 are taken from Boley and McGehee (2014) and Items C8, C9, C10, C11, C12, C13, C14, C15, C16, C17, C18 and C19 are taken from Spreitzer (1995)
Technology	Afsahhosseini et al. (2020); Zhong et al. (2021); Kim and Kim (2017); Yasa (2020)	Items T1, T2, T3, T4, T5 and T6 are inspired from Yates (2006)
Demand and Supply	HONTUS, (2014); Lago (2017); Junaid et al. (2023); Acha-Anyi et al. (2015)	Items D1, D2, D3, D4, D5, D6, D7, D8, D9, D10, D11, D12 are taken from Stewart (1997)

Table 1 shows the researches from where the scales to measure the five dimensions of Atmanirbharta are inspired and adapted.

MATERIALS AND METHODS

The study develops a new scale, Self-Reliant Tourism Development (SRTD) to measure Atmanirbharta (self-reliance) in tourism sector, adhering to best practices outlined by Churchill (1979); Hinkin (2005); DeVellis and Thorpe (2021) to create a more reliable and valid instrument. IBM SPSS Statistics 22 was used for exploratory factor analysis, while R 4.4.1 was used for confirmatory factor analysis.

Intended meaning and breadth of the theoretical concept

Due to fragmented literature and the lack of a proper measurement scale, the study began by specifying the domain of constructs, focusing on Atmanirbhar Bharat. The scale was conceptualized using descriptions of Atmanirbhar Bharat with literature review yielding concept labels, definitions, and dimensions: Economic Empowerment, Infrastructural Empowerment, Community Empowerment, Demand and Supply, and Technological Empowerment.

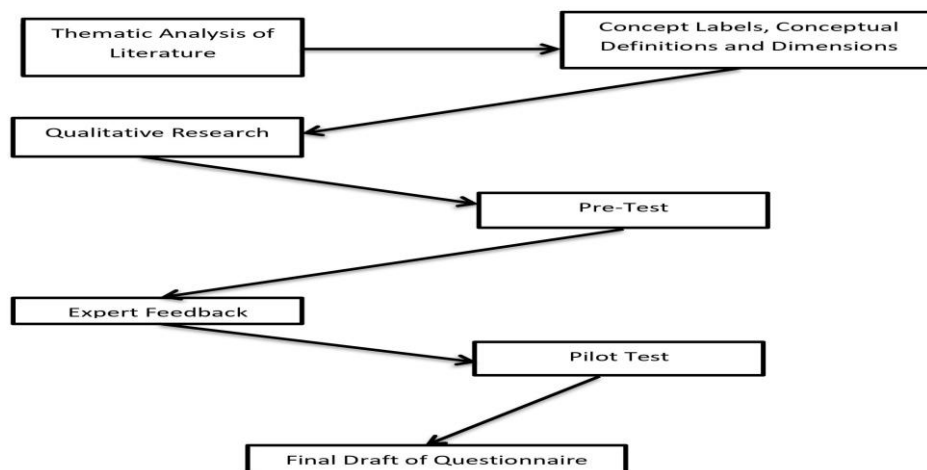


Figure 1. Process for Identifying Theoretical concept

Note – The figure illustrates the process for identifying the theoretical concept proposed by Carpenter (2018).

At the stage of thematic analysis literature and qualitative research, the latent variables identified through an extensive literature review and relevant theoretical frameworks were systematically operationalized into measurable items. A total of 12 established academicians were selected using purposive expert sampling based on their doctoral qualifications, research publications in tourism and related fields, and substantial teaching and research experience. They evaluated the initial item pool for content relevance, conceptual adequacy, clarity of wording, and alignment with the respective dimensions. Based on the expert review, no items were removed from the initial item pool. However, several items were refined in terms of wording, clarity, and conceptual alignment to enhance content validity and minimize ambiguity, while retaining the original structure of the scale. The questionnaire consisted of 50 structured close-ended items. The items were framed as fivepoint Likert-scale

statements, ranging from Strongly Disagree to Strongly Agree, to capture respondents' perceptions effectively. The scale was originally developed in English and subsequently translated into Hindi using a translation-back translation procedure involving bilingual experts. The translated version was reviewed for conceptual equivalence, clarity, and cultural relevance, ensuring linguistic validity. Language validity was ensured through expert-assisted translation, wherein subject experts reviewed the translated items to confirm semantic equivalence, cultural appropriateness, and conceptual consistency between both versions. For the pilot study, a total of 50 participants were selected, of which 20 respondents were approached through direct, face-to-face contact, while the remaining 30 participants were reached through online modes, including QR code distribution, WhatsApp, and email. The pilot (n=50) and main study (n=600) align with established scale development practices, particularly for EFA and CFA. While test-retest reliability was not conducted due to practical constraints and the context-sensitive nature of the constructs, the study ensured robustness through large sample size, expert validation, and comprehensive statistical analysis. Future studies may incorporate longitudinal designs to assess temporal stability.

Sample selection, data collection

Sample Selection

The study focused on entrepreneurs (local individuals directly involved in product-based tourism activities including artisans, handicraft producers, local food and agro-based product makers, small-scale tourism business owners and individuals involved in indigenous or heritage-based products) and the local community associated with them across Kangra, Kullu, and Mandi districts in Himachal Pradesh, India, because they collectively represent diverse yet complementary dimensions of product-based tourism and community entrepreneurship in Himachal Pradesh. The study employed non-probability convenience sampling as the primary technique for selecting respondents for the main survey. Participants were chosen based on accessibility, willingness to participate, and relevance to the study objectives. Factor analysis requires a large sample size, as small samples lead to unstable variables and reduced generalizability (Kline, 2013; Tabachnick et al., 2013). While methodologists recommend varying sample sizes, most suggest a minimum of 300 participants for reliable research (Henson and Roberts, 2006; Pett et al., 2003; Carpenter, 2018; Rouquette and Falissard, 2011), with an item-to-participant ratio of 1:5 (Bujang and Baharum, 2017; Gorsuch, 2014; Carpenter, 2018). Following these guidelines, the study finalized a sample size of 600 participants for more refined results.

Data Collection

The study employed a single survey method administered through a mixed-mode data collection approach. Specifically, the same structured questionnaire was distributed using both face-to-face interactions and online platforms (e.g., QR codes, email, and messaging applications) to enhance response reach and participation. This approach was adopted to enhance accessibility and improve response rates across geographically dispersed study areas. The data collection was conducted during June–July 2024. The finalized questionnaire was distributed in print and digital forms, yielding 615 responses, of which 15 were excluded for

being incomplete or linear. Following Chandralal and Valenzuela (2015), the remaining 600 valid responses were split into two random sets for exploratory factor analysis (EFA) and confirmatory factor analysis (CFA).

RESULTS

Demographic Profile of Respondents

Table 2. Sample Distribution

Demographic Profile		
Districts	Respondents	Percentage
Kangra	215	35.83333333
Kullu	236	39.33333333
Mandi	149	24.83333333

The sample highlights the distribution of respondents across the three districts, with Kullu (39.33%) having the highest representation, followed by Kangra (39.33%) and Mandi (24.83%).

Table 3. Gender of Respondents

Demographic Profile		
Gender	Respondents	Percentage
Female	304	50.66666667
Male	296	49.33333333

The sample is nearly balanced in terms of gender, with a slight majority of female respondents. This distribution suggests that both genders are well represented, allowing for a more comprehensive understanding of perspectives within the population surveyed.

Table 4. Age of Respondents

Demographic Profile		
Age	Respondents	Percentage
20-30 years	127	21.16666667
31-40 years	173	28.83333333
41-50 years	201	33.5
More than 50 years	99	16.5

The age distribution indicates that younger and middle-aged respondents (20-50 years) make up the majority of the sample, with a notable drop in representation for those over 50.

Table 5. Educational Qualification of Respondents

Demographic Profile		
Educational Qualification	Respondents	Percentage
Uneducated	33	5.5
Below Matric	68	11.33333333
Matric	138	23
Senior Secondary	135	22.5
Graduate	100	16.66666667
Masters Degree	123	20.5
Above	3	0.5

The educational qualifications of the respondents show a diverse range, with the majority having completed at least matriculation or senior secondary education. There is a good representation of graduates and individuals with master's degrees, while those with no formal education or extremely high qualifications (above master's) are quite limited.

Table 6. Marital Status of Respondents

Marital status	Respondents	Percentage
Married	348	58
Single	228	38
Widow	5	0.833333333
Others	19	3.166666667

The data shows that a majority of the respondents are married (58%), followed by a significant number who are single (38%). The presence of widowed respondents is minimal (.83%), and the "Others" category also represents a small percentage (19%).

Factorability of Data

To determine the suitability for factor analysis, the correlation matrix, Bartlett's test of sphericity, and the Kaiser-Meyer-Olkin (KMO) score were analysed. For factor analysis to be appropriate, the correlation matrix values should be .30 or higher, Bartlett's chisquare should be significant with a p-value of .05 or less, and the KMO value should be .60 or above (Pett et al., 2003; Tabachnick et al., 2013; McCroskey and Young, 1979; Carpenter, 2018). Bartlett's test yielded a chi-square (X^2) of 7220.307 ($p = 0.00$), and the KMO score was 0.95, supporting the use of Principal Components Analysis (PCA).

Scree Plot

Scree Plot is a visual tool that displays eigenvalues from factors, with the cut-off point for the number of factors identified where the line deviates from a generally straight dotted line (McCroskey and Young, 1979; Pett et al., 2003; Preacher and MacCallum, 2003; Reise et al., 2000; Carpenter, 2018). The scree plot indicated that 9 components should be retained.

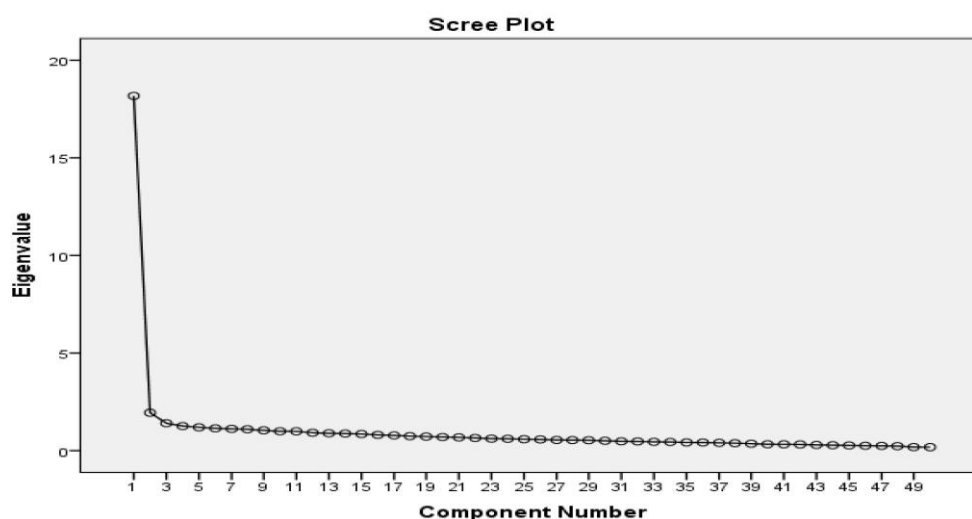


Figure 2. Scree Plot

Principal Factor Analysis

Table 7 shows the Rotated component Matrix in 9 components with Varimax rotation. The ideal factor loading suggested by authors ranges from .30 to .40, however in this study the cut-off was set to .50. C13, C12, C19, C15, T5, C17, C9, C18, C6, E6, E3, D8, D2, C4, T6, D6, C2, C5, E5, T1, C7, T2, C3, E1 were eliminated due to low factor loadings.

Table 7. Rotated Component Matrix

Rotated Component Matrix ^a									
	Component								
	1	2	3	4	5	6	7	8	9
C10	.605								
C14	.587								
C11	.558								
D4	.527								
I2	.519								
C16	.503								
D7		.607							
C8		.561							
E8		.560							
D11		.528							
D5			.649						
D9			.580						
D12			.569						
D10			.559						
D3				.583					
T4				.573					
E2				.543					
E7				.513					
C1					.667				
I3					.576				
I1						.575			
D1						.567			
T3						.539			
E4							.697		
E9								.729	
I4									.545
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.									

Item deletion and retention

To represent each dimension researchers have suggested that each subscale should have at least three elements (Clark and Watson, 1995; Kline, 2013; Loevinger, 1957; Carpenter, 2018). Following this criteria component 5, 7, 8 and 9 were deleted. The steps and factors deleted are listed in Table 8. The final dimensions along with statements are shown in Table 9.

Table 8. The steps followed and the Items eliminated during EFA

Step	Items deleted	Reason for deletion
1	C13, C12, C19, C15, T5, C17, C9, C18, C6, E6, E3, D8, D2, C4, T6, D6, C2, C5, E5, T1, C7, T2, C3, E1	Poor Factor Loading <.40
2	C1, I3	Only 2 factors
3	E4	One item Factor
4	E9	One item Factor
5	I4	One item Factor

Table 9. Retained Items and factor Labels

Factor	Item Number	Item Code	Factor Label and Items
			Sustainable Well-being
1	1	I1	Association with the enterprise has helped in improving housing (shelter).
	2	T3	Technology helped you to use your resources efficiently.
	3	D1	The enterprise receives repeated orders.
			Overall Efficiency
2	1	E2	After associating with the enterprise the overall capacity of household expenditure has increased.
	2	E7	You are getting equal money for same type of Job.
	3	T4	Technology helped you in communicating within the enterprise.
	4	D3	The delivery process of the product is easy and trouble-free.
			Efficient Supply Chain
3	1	D5	The customer is informed immediately if products run out of Stock.
	2	D9	The enterprise changes the output levels of products according to demand.
	3	D10	The enterprise delivers products prior to planned delivery dates.
	4	D12	The enterprise modifies the variety of products produced.
			Innovation
4	1	E8	Innovation has lead to generate better income.
	2	D7	Continuous effort is put to improve product.
	3	D11	The enterprise introduces new products easily.
	4	C8	The work (done by the enterprise) you do is meaningful to you.
			Empowerment
5	1	C10	You have significant autonomy in determining how you do your job.
	2	C11	Your impact on what happens in the department is large.
	3	C14	You can decide on your own how to go about doing your own work.
	4	C16	The job activity that you do is important to you.
	5	I2	Healthy association with enterprise has helped to supply better product and services.
	6	D4	Involvement in the decision making process help me to understand customers in a better manner.

Assessment of the Latent Structure - Confirmatory Factor Analysis

To confirm the latent structure found by the EFA analysis, the sample's second divided half underwent Confirmatory Factor Analysis (CFA). According to Hu and Bentler (1999); Hair and Anderson (1992) and Ahmad et al. (2016), the model fit indices demonstrated a absolute fit to the data: CMIN/DF = 1.700 (less than 3), CFI = .961 (greater than .95), TLI = .954 (greater than .95), RMSEA = .048 (less than .06), and SRMR = 0.038 (less than .08).

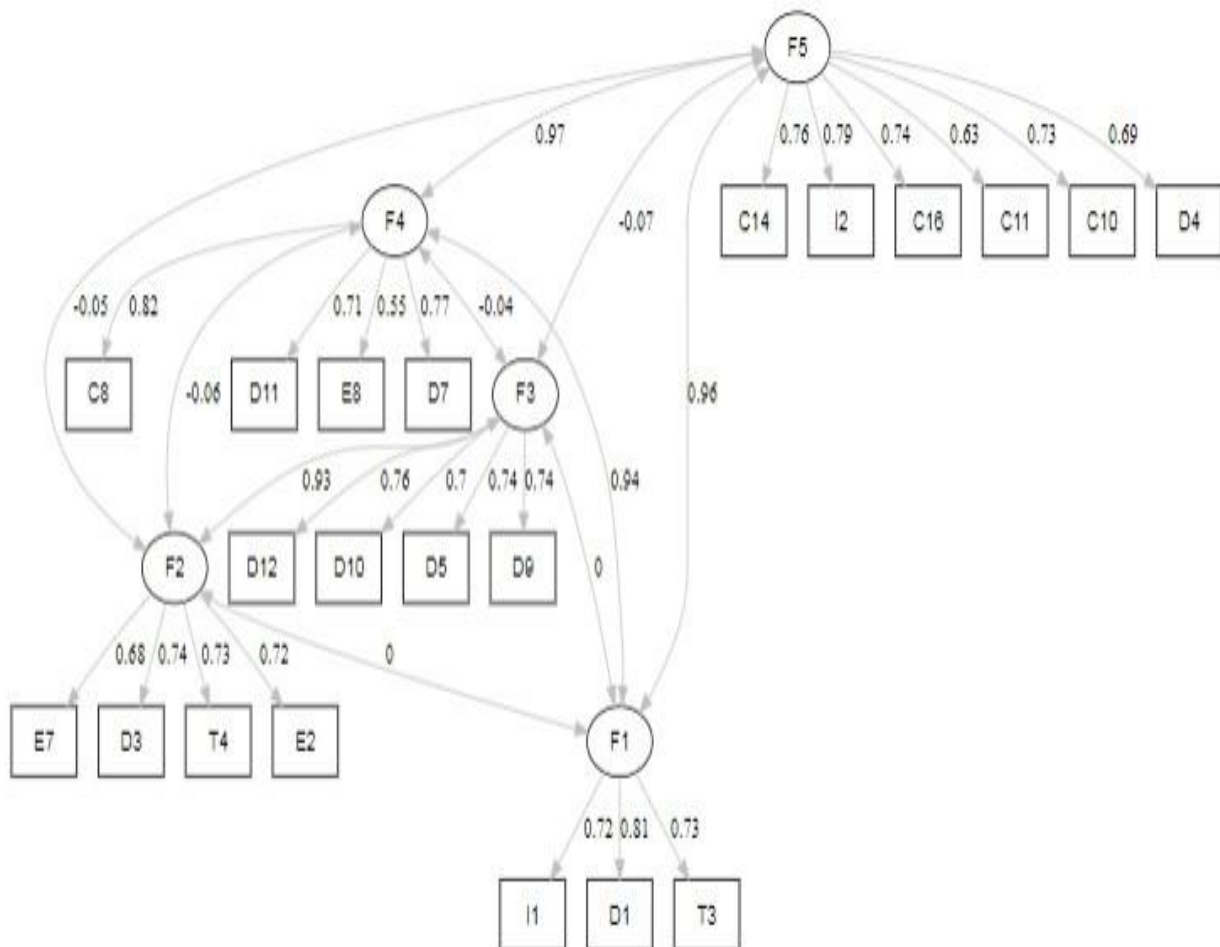


Table 10. Factor Loadings, AVE, CR and Chronbach's Alpha for Factors

Factor	Item	Factor Loadings	AVE	CR	Cronbach's alpha (α)
Sustainable Well-being	I1	0.722	0.57	0.79	0.801
	D1	0.806			
	T3	0.735			
Overall Efficiency	D3	0.744	0.52	0.81	0.811
	T4	0.73			
	E2	0.718			
	E7	0.681			
Efficient Supply Chain	D5	0.741	0.54	0.82	0.825
	D9	0.744			
	D12	0.763			
	D10	0.697			
Innovation	D7	0.77	0.52	0.81	0.796
	C8	0.82			
	D11	0.706			
	E8	0.552			
Empowerment	C14	0.762	0.52	0.87	0.866
	I2	0.787			
	C16	0.743			
	C11	0.625			
	C10	0.73			
	D4	0.687			

Through Factor Analysis and rigorous statistical testing, five key dimensions were identified: Sustainable Well-being, Overall Efficiency, Efficient Supply Chain, Innovation, and Empowerment having 21 items, demonstrating its robustness and suitability for measuring self-reliance in Tourism.

DISCUSSION AND IMPLICATIONS

By synthesizing factors from various theoretical perspectives e.g. economic theories, community empowerment models, and technological frameworks, the research presents a comprehensive understanding of self-reliance in the tourism context, this integration enhances theoretical models relating to community development and self-sufficiency. The study contributes to the literature by developing a reliable and validated measurement scale (SRTD) that summarise multiple dimensions of self-reliance in tourism, including Economic Empowerment, Infrastructural Empowerment, Community Empowerment, Demand and Supply, and Technological Empowerment. Previous studies have highlighted the importance of self-reliance and tourism in economic growth (Gerbing and Anderson, 1988; Ghadge et al., 2020) but lacked a comprehensive measurement framework. This study addresses that gap by providing a multi-dimensional scale that includes specific constructs like sustainable well-being and efficiency, which are under represented in earlier works of (Boley and McGehee, 2014; Ranasinghe and Pradeepamali, 2019; Jeong et al., 2021; Neuts et al., 2021). While earlier studies often relied on individual constructs to discuss self-reliance and community empowerment by taking economic (Kasturi, 1997; Pereznieta and Taylor, 2014; Surya et al., 2020; Tian et al., 2023; Boley and McGehee, 2014), social (Achmad,

2023; Yang et al., 2020; Sarr et al., 2021; Mandulangi, 2021) political and psychological empowerment (Boley and McGehee, 2014; Ranasinghe and Pradeepamali, 2019), this research integrates multiple dimensions, the empirical model constructed herein aligns with the thoughts of (DeVellis and Thorpe, 2021; Hinkin, 2005) but improves their approach by measuring self-reliance as an integrated system with multiple interrelated components instead of separate entities, suggesting that self-reliance is influenced by broader socio-political dynamics. The findings point to Infrastructural Empowerment as a critical factor for fostering self-reliance. This suggests a pressing need for investments in local infrastructure (roads, utilities, etc.) that supports tourism. Drawing from existing research, like that of (Josa and Aguado, 2019), policymakers should prioritize developing infrastructure that enhances both tourism appeal and local community access to services. Also identifying Technological Empowerment as a key factor in measuring Atmanirbharta in tourism highlights the crucial role of technology, an aspect frequently mentioned but rarely explored in depth in existing literature, signals a requirement for policies encouraging the adoption of technology within the tourism sector. This includes providing training for local businesses to use digital tools effectively, as advocated in the studies of (Kim and Kim, 2017).

The findings of the study focus on Atmanirbharta which aligns with India's cultural and socio-economic context, emphasizing local culture, heritage, and resources in tourism development, based on discussions about local identities and practices by (Acha-Anyi et al., 2015). This study reinforces the idea that tourism cannot be universally defined but should be tailored to specific regional and community needs, a detail often missed in broader economic studies. The emphasis on Community Empowerment as a dimension of self-reliance underscores the need for policies that support local initiatives. This aligns with (Kundu, 2012), who highlighted the role of grassroots participation in economic development. Policymakers should design interventions that promote local governance structures and involve community members in decision-making processes related to tourism development. The SRTD serves as a diagnostic tool in aiding strategic planning and resource allocation, which fosters tourism rooted in local identity, benefiting communities and promoting sustainability. The multi-dimensional nature of self-reliance highlighted by the study advocates for sustainable tourism practices, reinforcing findings from earlier literature (Ghadge et al., 2020) that underscore the need for environmentally responsible tourism development. Policymakers should create incentives for businesses that adopt sustainable practices, ensuring that environmental considerations are integrated into tourism planning. The study emphasizes the cultural relevance of self-reliance, echoing (Acha-Anyi et al., 2015), who noted the importance of local identity in tourism. Policy frameworks should take into account the unique cultural heritage and practices of different regions when developing tourism strategies, ensuring that local identities are celebrated and leveraged in marketing and development. Investing in training programs aimed at enhancing the skills and capacities of local tourism operators and communities is essential. This aligns with existing literature (Laverack, 2006) that emphasizes the role of community empowerment. Training programs can focus on sustainable practices, business management, and customer engagement to attract conscientious travelers. Implementing robust monitoring and evaluation frameworks can help assess the impacts of self-reliance initiatives in tourism,

policymakers should adopt indicators that measure economic impact, community well-being, and environmental sustainability, facilitating a proactive approach to policy adjustments. These implications call for a collaborative approach between government, communities, and tourism stakeholders, ensuring that policies are well-informed and tailored to enhance self-reliance in the tourism sector effectively. Policymakers should design interventions that promote local governance structures and involve community members in decision-making processes related to tourism development. Policymakers can use it to design interventions supporting local businesses, enhancing community participation, and encouraging sustainable practices.

The rigorous evaluation of the psychometric properties of the measurement scale provides a methodological template for researchers aiming to assess psychological constructs in social sciences. The findings outline a theoretical framework that can guide future empirical research on self-reliance in the tourism industry. Scholars can build on this framework to explore the impacts of self-reliance dynamics on tourist behavior, local economies, and community development.

Limitations and Future Research

The study, while methodologically rigorous, has certain limitations. The developed scale is context-specific to India, particularly Himachal Pradesh, which may limit its generalizability to other regions. The use of convenience sampling may introduce bias, despite the large sample size. The cross-sectional design restricts the ability to capture changes over time. The reliance on self-reported data may lead to response bias, including social desirability effects. Finally, the practical applicability of the scale across different contexts and stages of community development requires further exploration. Future research should examine the long-term economic impact of self-reliance, the role of social capital, and its relationship with variables like tourist satisfaction, community well-being, and environmental sustainability. Comparative studies across regions or countries and qualitative research could enrich the framework by exploring lived experiences and regional differences. Applying the Atmanirbhar scale to varied samples, ideally using random sampling, can further validate its robustness. Overall, future research should focus on cross-cultural validation, longitudinal analysis, and extended reliability testing to strengthen the scale's robustness and applicability.

CONCLUSION

This study investigates the multi-dimensional construct of Atmanirbharta, or self-reliance, within the tourism sector in Himachal Pradesh, India. It involved the development and validation of a comprehensive scale (SRTD) designed to assess the various components that contribute to self-reliance. A total of 600 valid responses were collected across the Kangra, Kullu, and Mandi districts. This study successfully develops a reliable and valid measurement Scale (SRTD) filling a significant gap in existing researches by identifying key dimensions such as Sustainable Well-being, Innovation and Empowerment, the findings offer a comprehensive framework for understanding and promoting self-reliance in the tourism sector. Each dimension reflects how multi-faceted self-reliance is, emphasizing it is not just any economic concept but a holistic approach that brings together elements of society and governance. These insights provide actionable guidance for policymakers and

practitioners, emphasizing the importance of local engagement, technological adoption, and sustainable practices. This study not only bridges significant gaps but also challenges and extends existing understandings of self-reliance in tourism, offering a more nuanced and actionable framework for future research and practice. Ultimately, this research reinforces the role of tourism in driving economic growth and community empowerment in alignment with the goals of Atmanirbhar Bharat.

DECLARATION OF INTEREST

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper. The author is not an Editorial Board Member/Editor-in-Chief/Associate Editor/Guest Editor and was not involved in the editorial review or the decision to publish this article. The authors declare that we have no financial interests/personal relationships which may be considered as potential competing interests. This study did not involve any experiments or procedures performed on humans or animals. Therefore, the ethics statement is not applicable.

DATA AVAILABILITY STATEMENT

The data supporting the findings of this study are available upon reasonable request from the corresponding author.

ACKNOWLEDGEMENT

Parts of this manuscript have been adapted from my unpublished thesis, titled "INTEGRATIVE FRAMEWORK FOR DEVELOPING COMMUNITY BASED TOURISM FOR ATMANIRBHAR HIMACHAL PRADESH ", pursued at Central University of Jammu since 2021. The manuscript has been significantly revised, expanded, and refocused for publication.

REFERENCES

- Abdullah, N. C. & Said, J. (2014). Economic empowerment of rural communities in homestay programmes: Loopholes of governance structure. *Proceedings of ICFC*, 2014:5.
- Acha-Anyi, P. N. et al. (2015). Bridging the demand and supply gap in community tourism. *AFRICAN JOURNAL OF HOSPITALITY, TOURISM AND LEISURE*, 4(2):1–16. [http://www.ajhtl.com/uploads/7/1/6/3/7163688/article39vol4\(2\)july-nov2015.pdf](http://www.ajhtl.com/uploads/7/1/6/3/7163688/article39vol4(2)july-nov2015.pdf)
- Achmad, W. (2023). Community empowerment for tourism village development in sumberjaya village, choreutid district, ciamis regency. *THE INTERNATIONAL JOURNAL OF POLITICS AND SOCIOLOGY RESEARCH*, 11(1):155–160. <https://doi.org/10.35335/ijopsor.v11i1.65>
- Adebayo, A. D. & Butcher, J. (2023). Community empowerment in nigeria's tourism industry: An analysis of stakeholders' perceptions. *TOURISM PLANNING & DEVELOPMENT*, 20(4):583–603. <https://doi.org/10.1080/21568316.2022.2127865>
- Afsahhosseini, F. (2020). Technology in tourism. In Gunadi et al. (Eds.), *Culture, people and technology: The driving forces for tourism cities: Proceedings of the 8th ITSA Biennial Conference 2020* (pp. 368–381). The British Library.
- Ahmad, M. S. & Abu Talib, N. B. (2016). Analysis of community empowerment on projects sustainability: Moderating role of sense of community. *SOCIAL INDICATORS RESEARCH*, 129:1039–1056. [10.1007/s11205-014-0781-9](https://doi.org/10.1007/s11205-014-0781-9)

- Ahmad, S., Zulkurnain, N., & Khairushalimi, F. (2016). Assessing the validity and reliability of a measurement model in structural equation modeling (sem). *BRITISH JOURNAL OF MATHEMATICS & COMPUTER SCIENCE*, 15(3):1–8. 10.9734/BJMCS/2016/25183
- Alam, A., Khan, A., Ghosal, N., & Satpati, L. (2021). A review of resource management and self-reliance for sustainable development of india under covid-19 scenario. *JOURNAL OF PUBLIC AFFAIRS*, 21(4):e2725. <https://doi.org/10.1002/pa.2725>
- Ansari, S., Munir, K., & Gregg, T. (2012). Impact at the ‘bottom of the pyramid’: The role of social capital in capability development and community empowerment. *JOURNAL OF MANAGEMENT STUDIES*, 49(4):813–842. 10.1111/j.1467-6486.2012.01042.x
- Boers, B. & Cottrell, S. (2007). Sustainable tourism infrastructure planning: A gissupported approach. *TOURISM GEOGRAPHIES*, 9(1):1–21. <https://doi.org/10.1080/14616680601092824>
- Boley, B. B. & McGehee, N. G. (2014). Measuring empowerment: Developing and validating the resident empowerment through tourism scale (rets). *TOURISM MANAGEMENT*, 45:85–94. 10.1016/j.tourman.2014.04.003
- Bujang, M. A. & Baharum, N. (2017). A simplified guide to determination of sample size requirements for estimating the value of intraclass correlation coefficient: a review. *ARCHIVES OF OROFACIAL SCIENCE*, 12(1). <https://api.semanticscholar.org/CorpusID:127106131>
- Carpenter, S. (2018). Ten steps in scale development and reporting: A guide for researchers. *COMMUNICATION METHODS AND MEASURES*, 12(1):25–44. 10.1080/19312458.2017.1396583
- Chandralal, L. & Valenzuela, F.-R. (2015). Memorable tourism experiences; scale development. *CONTEMPORARY MANAGEMENT RESEARCH*, 11(3):291–310. <https://doi.org/10.7903/cmr.13822>
- Churchill, G. A. (1979). A paradigm for developing better measures of marketing constructs. *JOURNAL OF MARKETING RESEARCH*, 16(1):64–73. <https://doi.org/10.2307/3150876>
- Clark, L. A. & Watson, D. (1995). Constructing validity: Basic issues in objective scale development. *PSYCHOLOGICAL ASSESSMENT*, 7(3):309–319. <https://doi.org/10.1037/1040-3590.7.3.309>
- Clarke, N. (2001). Training as a vehicle to empower carers in the community: more than a question of information sharing. *HEALTH & SOCIAL CARE IN THE COMMUNITY*, 9(2):79–88. <https://doi.org/10.1046/j.1365-2524.2001.00284.x>
- Cooper, M. C. & Ellram, L. M. (1993). Characteristics of supply chain management and the implications for purchasing and logistics strategy. *THE INTERNATIONAL JOURNAL OF LOGISTICS MANAGEMENT*, 4(2):13–24. 10.1108/09574099310804957
- DeVellis, R. F. & Thorpe, C. T. (2021). Scale development: Theory and applications. SAGE PUBLICATIONS.
- Dubey, P. & Sahu, K. K. (2020). Msme in covid-19 crisis and india’s economic relief package: a critical review. *AIJR PREPRINTS*, 207. <https://doi.org/10.21467/preprints.207>
- Fawcett, S. B., Paine-Andrews, A., Francisco, V. T., Schultz, J. A., Richter, K. P., Lewis, R. K., Williams, E. L., Harris, K. J., Berkley, J. Y., Fisher, J. L., et al. (1995). Using empowerment theory in collaborative partnerships for community health and development. *AMERICAN JOURNAL OF COMMUNITY PSYCHOLOGY*, 23(5):677–697. 10.1007/BF02506987
- Firoiu, D. & Croitoru, A.-G. (2013). Tourism and tourism infrastructure from the perspective of technological changes. *ROMANIAN ECONOMIC AND BUSINESS REVIEW*, 8(2):93– 103. <http://www.rebe.rau.ro/RePEc/rau/journal/SU13/REBE-SU13-A8.pdf>

- Gebremariam, K. Z. (2018). Challenges and prospects of community based eco-tourism in maichew cluster, a case of ofla woreda. *EDELWEISS APPLIED SCIENCE AND TECHNOLOGY*, 2(1):187–200. <https://doi.org/10.33805/10.33805/2576.8484.137>
- Gerbing, D. W. & Anderson, J. C. (1988). An updated paradigm for scale development incorporating unidimensionality and its assessment. *JOURNAL OF MARKETING RESEARCH*, 25(2):186–192. <https://doi.org/10.1177/002224378802500207>
- Ghadge, A., Er Kara, M., Moradlou, H., & Goswami, M. (2020). The impact of industry 4.0 implementation on supply chains. *JOURNAL OF MANUFACTURING TECHNOLOGY MANAGEMENT*, 31(4):669–686. 10.1108/JMTM-10-2019-0368
- Golgeci, I. & Kuivalainen, O. (2020). Does social capital matter for supply chain re-“silience? the role of absorptive capacity and marketing-supply chain management alignment. *INDUSTRIAL MARKETING MANAGEMENT*, 84:63–74. 10.1016/j.indmarman.2019.05.006
- Gorsuch, R. L. (2014). Factor analysis: Classic edition. ROUTLEDGE.
- Greiner, C., Greven, D., & Klagge, B. (2021). Roads to change: Livelihoods, land disputes, and anticipation of future developments in rural kenya. *THE EUROPEAN JOURNAL OF DEVELOPMENT RESEARCH*, 33:1044–1068. 10.1057/s41287-021-00396-y
- Hair, A. & Anderson, R. (1992). Tatham, & black.(1998). Multivariate Data Analysis (5th Edition). Prentice Hall. ISBN: 0138948585
- Han, G., Wu, P., Huang, Y., & Yang, Z. (2014). Tourism development and the disempowerment of host residents: Types and formative mechanisms. *TOURISM GEOGRAPHIES*, 16(5):717–740. 10.1080/14616688.2014.957718
- Henson, R. K. & Roberts, J. K. (2006). Use of exploratory factor analysis in published research: Common errors and some comment on improved practice. *EDUCATIONAL AND PSYCHOLOGICAL MEASUREMENT*, 66(3):393–416. 10.1177/0013164405282485
- Hess, R. E. (2014). Studies in empowerment: Steps toward understanding and action. ROUTLEDGE. <https://doi.org/10.4324/9781315804385>
- Hidayat, A., Rahmanita, M., & Hermantoro, H. (2017). Community empowerment in plempoh cultural tourism village. *TRJ TOURISM RESEARCH JOURNAL*, 1(1):98–116. 10.30647/trj.v1i1.11
- Hinkin, T. R. (2005). Scale development principles & practices. *RESEARCH IN ORGANIZATIONS: FOUNDATIONS AND METHODS OF INQUIRY*, 1:161–179. Berrett-Koehler Publishers.
- Hontuş, A. C. (2014). Analysis of tourism demand and supply—one of the essential elements of an area in tourism planning. *SCIENTIFIC PAPERS SERIES MANAGEMENT, ECONOMIC ENGINEERING IN AGRICULTURE AND RURAL DEVELOPMENT*, 14(1):147–152. https://managementjournal.usamv.ro/pdf/vol4_1/Art23.pdf
- Hu, L.-t. & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *STRUCTURAL EQUATION MODELING: A MULTIDISCIPLINARY JOURNAL*, 6(1):1–55. <https://doi.org/10.1080/10705519909540118>
- Jacobs, G. & Slaus, I. (2010). Indicators of economic progress: the power of measurement and human welfare. *CADMUS JOURNAL*, 1:53–113. <http://www.cadmusjournal.org/files/pdfreprints/vol1issue1/Indicators%20of%20Economics%20Progress-The%20Power%20of%20Measurement%20and%20Human%20Welfare,%20Jacobs,%20Garry%20et%20al.pdf>
- Jeong, E., Ryu, I., & Brown, A. (2018). Moderating effect of sense of community on the relationship between psychological empowerment and tourism policy participation of local residents. *GLOBAL BUSINESS & FINANCE REVIEW (GBFR)*, 23(1):36–46. 10.17549/gbfr.2018.23.1.36

- Jeong, E., Shim, C., Brown, A. D., & Lee, S. (2021). Development of a scale to measure intrapersonal psychological empowerment to participate in local tourism development: Applying the sociopolitical control scale construct to tourism (spcs-t). *SUSTAINABILITY*, 13(7):4057. 10.3390/su13074057
- Joo, D., Woosnam, K. M., Strzelecka, M., & Boley, B. B. (2020). Knowledge, empowerment, and action: Testing the empowerment theory in a tourism context. *JOURNAL OF SUSTAINABLE TOURISM*, 28(1):69–85. <https://doi.org/10.1080/09669582.2019.1675673>
- Josa, I. & Aguado, A. (2019). Infrastructures and society: from a literature review to a conceptual framework. *JOURNAL OF CLEANER PRODUCTION*, 238:117741. <https://doi.org/10.1016/j.jclepro.2019.117741>
- Junaid, I., Mufadhdhal Ilham, M. D., Riani, R. L., Fiarta, A. F., & Rizkiyah, P. (2023). The management of rural tourism in barru regency from a supply and demand perspective. *MASYARAKAT, KEBUDAYAAN & POLITIK*, 36(1):101–112. 10.20473/mkp.V36I12023.101-112
- Kasturi, L. (1997). Speaking out: Women's economic empowerment in south asia. *ASIAN JOURNAL OF WOMEN'S STUDIES*, 3(4):131. 10.5281/zenodo.10984167
- Kim, D. & Kim, S. (2017). The role of mobile technology in tourism: Patents, articles, news, and mobile tour app reviews. *SUSTAINABILITY*, 9(11):2082. <https://doi.org/10.3390/su9112082>
- Kirk, D. (2005). Book review: Empowerment for sustainable tourism development. *JOURNAL OF HOSPITALITY & TOURISM RESEARCH*, 29(3):419–421. 10.1016/j.annals.2005.01.001
- Kline, R. (2013). Exploratory and confirmatory factor analysis. In *APPLIED QUANTITATIVE ANALYSIS IN EDUCATION AND THE SOCIAL SCIENCES*, pages 171–207. Routledge.
- Kundu, S. (2012). Economic empowerment through rural tourism: the case of Tarapith – a religious tourism destination in Birbhum District of West Bengal, India. *GEOGRAFIA: MALAYSIAN JOURNAL OF SOCIETY AND SPACE*, 8:65–74. <https://api.semanticscholar.org/CorpusID:126712928>
- Lago, N. (2017). Tourism demand and agriculture supply: Basis for agritourism development in quezon province. *ASIA PACIFIC JOURNAL OF MULTIDISCIPLINARY RESEARCH*, 5(3):1–9. <http://oaji.net/articles/2017/1543-1536128729.pdf>
- Laverack, G. (2006). Improving health outcomes through community empowerment: a review of the literature. *JOURNAL OF HEALTH, POPULATION AND NUTRITION*, pages 113–120. <https://www.jstor.org/stable/23499274>
- Lennie, J. (2002). Rural women's empowerment in a communication technology project: some contradictory effects. *RURAL SOCIETY*, 12(3):224–245. 10.5172/rsj.12.3.224
- Loevinger, J. (1957). Objective tests as instruments of psychological theory. *PSYCHOLOGICAL REPORTS*, 3(3):635–694. <https://doi.org/10.2466/PR0.3.7.635-694>
- Ma, L. (2023). Research on the application of artificial intelligence in computer networks. In *Sixth International Conference on Computer Information Science and Application Technology (CISAT 2023)*, volume 12800, pages 109–113. SPIE.
- Mandulangi, J. (2021). Maximizing of local community empowerment based on social capital coordination action in tourism development. In *International Conference on Applied Science and Technology on Social Science (ICAST-SS 2020)*, pages 1–5. Atlantis Press.
- Mantri, P. R., Tiwari, B., & Chhajer, C. P. (2020). Covid 19: An Invisible Destroyer of the Economy Paving way to Atmanirbhar Bharat. *SHANLAX INTERNATIONAL JOURNAL OF MANAGEMENT*, 8(2):54–71. <https://doi.org/10.34293/management.v8i2.3310>

- McCroskey, J. C. & Young, T. J. (1979). The use and abuse of factor analysis in communication research. HUMAN COMMUNICATION RESEARCH, 5(4):375–382. DOI:10.1111/J.1468-2958.1979.TB00651.X
- McMillan, B. F. (1999). A structural equation modeling approach to understanding psychological empowerment in community prevention coalitions. Phd dissertation, University of Rhode Island. Open Access Dissertations, Paper 922.
- Meisuri, M., Nuswantoro, P., Mardikawati, B., & Judijanto, L. (2023). Technology revolution in learning: Building the future of education. JOURNAL OF SOCIAL SCIENCE UTILIZING TECHNOLOGY, 1(4):214–226. 10.55849/jssut.v1i4.660
- Movono, A. & Dahles, H. (2017). Female empowerment and tourism: A focus on businesses in a fijian village. ASIA PACIFIC JOURNAL OF TOURISM RESEARCH, 22(6):681–692. 10.1080/10941665.2017.1308397
- Nandi, S., Sarkis, J., Hervani, A. A., & Helms, M. M. (2021). Redesigning supply chains using blockchain-enabled circular economy and covid-19 experiences. SUSTAINABLE PRODUCTION AND CONSUMPTION, 27:10–22. <https://doi.org/10.1016/j.spc.2020.10.019>
- NDTV.com (2024). “Our Atmanirbharta Should Not Be...”: Amitabh Bachchan On Maldives Row. <https://www.ndtv.com/india-news/amitabh-bachchan-joins-celebs-pitch-for-lakshadweep-amid-maldives-row-4821582>
- Neuts, B., Kimps, S., & van der Borg, J. (2021). Resident support for tourism development: application of a simplified resident empowerment through tourism scale on developing destinations in flanders. SUSTAINABILITY, 13(12):6934. 10.3390/su13126934
- Onuigbo, I. (2008). Modern surveying techniques in national infrastructural development: Case study of roads. JOURNAL OF RESEARCH IN NATIONAL DEVELOPMENT, 6(1):13–13. 10.4314/jorind.v6i1.42406
- Oswald, M., Li, Q., McNeil, S., & Trimbath, S. (2011). Measuring infrastructure performance: development of a national infrastructure index. PUBLIC WORKS MANAGEMENT & POLICY, 16(4):373–394. 10.1177/1087724X11410071
- Pascu, E. (2012). Tourism infrastructure—a factor which influences the quality of tourism services. REVISTA ROMAN^ A DE STATISTIC^ A–SUPLIMENT TRIM IV^ , page 265.
- Pereznieto, P. & Taylor, G. (2014). A review of approaches and methods to measure economic empowerment of women and girls. GENDER & DEVELOPMENT, 22(2):233–251. 10.1080/13552074.2014.920976
- Peterman, W. (2000). Neighborhood planning and community-based development: The potential and limits of grassroots action. SAGE. <https://doi.org/10.4135/9781452232508>
- Pett, M. A., Lackey, N. R., & Sullivan, J. J. (2003). Making sense of factor analysis: The use of factor analysis for instrument development in health care research. SAGE. Google-Books-ID: 9kB5jE2IjS4C. <https://doi.org/10.4135/9781412984898>
- Pires, G. D., Stanton, J., & Rita, P. (2006). The internet, consumer empowerment and marketing strategies. EUROPEAN JOURNAL OF MARKETING, 40(9/10):936–949. <https://doi.org/10.1108/03090560610680943>
- Preacher, K. J. & MacCallum, R. C. (2003). Repairing tom swift’s electric factor analysis machine. UNDERSTANDING STATISTICS, 2(1):13–43. https://doi.org/10.1207/S15328031US0201_02
- Pulicherla, K., Adapa, V., Ghosh, M., & Ingle, P. (2022). Current efforts on sustainable green growth in the manufacturing sector to complement “make in india” for making “self-reliant india”. ENVIRONMENTAL RESEARCH, 206:112263. <https://doi.org/10.1016/j.envres.2021.112263>

- Rachmawati, E., Fountain, J., & Mackay, M. (2021a). Factors influencing economic empowerment in tourism development. *ECONOMICS AND FINANCE IN INDONESIA*, 67(2):5. 10.47291/efi.v67i2.917
- Rachmawati, E., Hidayati, S., & Rahayuningsih, T. (2021b). Community involvement and social empowerment in tourism development. *MEDIA KONSERVASI*, 26(3):193–201. 10.29244/medkon.26.3.193-201
- Rachmawati, E., Hidayati, S., & Rahayuningsih, T. (2022). Community Economic Empowerment in Tourism Development in The Kepulauan Seribu National Park. SYIAH KUALA UNIVERSITY PRESS. 10.1088/1755-1315/1506/1/012029
- Rahajeng, A. & Suprpto, G. P. (2019). The role of local potential-based entrepreneurship through community empowerment in tourism village development: Case study: Ponggok village, polanharjo subdistrict, klaten regency, indonesia. In *Proceedings of the 7th International Conference on Entrepreneurship and Business Management*, pages 227–232. DOI:10.5220/0008491002270232
- Rahayu, A. T. (2018). Gambaran keberdayaan perempuan di desa wisata pentingsari berdasarkan resident empowerment through tourism scale (rets). *GADJAH MADA JOURNAL OF TOURISM*, 1(1):1–11. 10.22146/gamajts.v1i1.36313
- Rahman, M. S., Haque, M. E., Afrad, M. S. I., Hasan, S. S., & Rahman, M. A. (2023). Impact of mobile phone usage on empowerment of rural women entrepreneurs: Evidence from rural bangladesh. *HELIYON*, 9(11). 10.1016/j.heliyon.2023.e21604
- Ramos, A. M. & Prideaux, B. (2014). Indigenous ecotourism in the mayan rainforest of palenque: empowerment issues in sustainable development. *JOURNAL OF SUSTAINABLE TOURISM*, 22(3):461–479. 10.1080/09669582.2013.828730
- Ranasinghe, R. & Pradeepamali, J. (2019). Community empowerment and their support for tourism development: An inquiry based on resident empowerment through tourism scale. Available at SSRN 3506608. 10.29036/jots.v10i19.96
- Reise, S. P., Waller, N. G., & Comrey, A. L. (2000). Factor analysis and scale revision. *PSYCHOLOGICAL ASSESSMENT*, 12(3):287. <https://doi.org/10.1037/1040-3590.12.3.287>
- Rouquette, A. & Falissard, B. (2011). Sample size requirements for the internal validation of psychiatric scales. *INTERNATIONAL JOURNAL OF METHODS IN PSYCHIATRIC RESEARCH*, 20(4):235–249. Place: United States. 10.1002/mpr.352
- Sapkota, R. (2020). Community-Based Homestay Tourism as a Tool for Community Empowerment: A Case Study of Two Community-Managed Homestay Destinations in Nepal. Liverpool John Moores University (United Kingdom). <https://researchonline.ljmu.ac.uk/id/eprint/14110>
- Sarr, B., Sene-Harper, A., & Gonzalez-Hernandez, M. M. (2021). Tourism, social representations and empowerment of rural communities at langue de barbarie national park, senegal. *JOURNAL OF SUSTAINABLE TOURISM*, 29(8):1383–1402. 10.1080/09669582.2020.1855437
- Saxena, G., Clark, G., Oliver, T., & Ilbery, B. (2007). Conceptualizing integrated rural tourism. *TOURISM GEOGRAPHIES*, 9(4):347–370. 10.1080/14616680701647527
- Senadjki, A., Ogbeibu, S., Mohd, S., Hui Nee, A. Y., & Awal, I. M. (2023). Harnessing artificial intelligence for business competitiveness in achieving sustainable development goals. *JOURNAL OF ASIA-PACIFIC BUSINESS*, 24(3):149–169. 10.1080/10599231.2023.2220603
- Sharma, M. & Joshi, S. (2019). Optimal media mix for iec campaigns using fuzzy linguistic genetic algorithm: a study of swachh bharat abhiyan (clean india mission). *JOURNAL OF OPERATIONS AND STRATEGIC PLANNING*, 2(1):1–21. 10.1177/2516600X19857357

- Spreitzer, G. M. (1995). Psychological empowerment in the workplace: Dimensions, measurement, and validation. *ACADEMY OF MANAGEMENT JOURNAL*, 38(5):1442–1465. <https://doi.org/10.2307/256865>
- Srivastava, H. K., Mujoo, R., Singh, S. K., & Singh, V. L. (2023). Social and economic infrastructure and socio-economic development: an empirical analysis. *ACCESS JOURNAL*, 4(3):335–351. [https://doi.org/10.46656/access.2023.4.3\(1\)](https://doi.org/10.46656/access.2023.4.3(1))
- Stewart, G. (1997). Supply-chain operations reference model (scor): the first crossindustry framework for integrated supply-chain management. *LOGISTICS INFORMATION MANAGEMENT*, 10(2):62–67. <https://doi.org/10.1108/09576059710815716>
- Stojanovic, B., Vu' ci' c, V., & Kostic, Z. (2019). Competitiveness of infrastructure in tourism in the southeast europe. *KNOWLEDGE-INTERNATIONAL JOURNAL*, 35(1):181–187.
- Stoltenberg Bruursema, C. (2015). Asset-based community development: A path toward authentic community development practice. *SPNHA REVIEW*, 11(1):7. <https://scholarworks.gvsu.edu/spnhareview/vol11/iss1/7>
- Stone, M. T. (2015). Community empowerment through community-based tourism: The case of chobe enclave conservation trust in botswana. *INSTITUTIONAL ARRANGEMENTS FOR CONSERVATION, DEVELOPMENT AND TOURISM IN EASTERN AND SOUTHERN AFRICA: A DYNAMIC PERSPECTIVE*, pages 81–100. 10.1007/978-94-017-9529-6_5
- Strzelecka, M., Boley, B. B., & Strzelecka, C. (2017). Empowerment and resident support for tourism in rural central and eastern europe (cee): The case of pomerania, poland. *JOURNAL OF SUSTAINABLE TOURISM*, 25(4):554–572. 10.1080/09669582.2016.1224891
- Surya, B., Syafri, S., Sahban, H., & Sakti, H. H. (2020). Natural resource conservation based on community economic empowerment: Perspectives on watershed management and slum settlements in makassar city, south sulawesi, indonesia. *LAND*, 9(4):104. 10.3390/land9040104
- Tabachnick, B. G., Fidell, L. S., & Ullman, J. B. (2013). Using multivariate statistics, volume 6. pearson BOSTON, MA.
- Tian, B., Stoffelen, A., & Vanclay, F. (2023). Ethnic tourism in china: Tourism-related (dis) empowerment of miao villages in hunan province. *TOURISM GEOGRAPHIES*, 25(23):552–571. <https://doi.org/10.1080/14616688.2021.1938657>
- Varma, L. & Balachandran, V. (2021). Atamnirbhar bharat abhiyan-towards promotion of entrepreneurship. *INTERNATIONAL JOURNAL OF BUSINESS AND MANAGEMENT*, 23(9):16–20. 0.9790/487X-2309021620
- Venkatesh, V., Kang, K., Wang, B., Zhong, R. Y., & Zhang, A. (2020). System architecture for blockchain based transparency of supply chain social sustainability. *ROBOTICS AND COMPUTER-INTEGRATED MANUFACTURING*, 63:101896. <https://doi.org/10.1016/j.rcim.2019.101896>
- Wang, M. & Wu, D. (2021). Ict-based assistive technology as the extension of human eyes: technological empowerment and social inclusion of visually impaired people in china. *ASIAN JOURNAL OF COMMUNICATION*, 31(6):470–484. 10.1080/01292986.2021.1913619
- Wardhani, A. A. & Susilowati, I. (2021). Four dimensions of women's empowerment in tourism: Case study of indrayanti beach, yogyakarta, indonesia. *JURNAL EKONOMI & STUDI PEMBANGUNAN*, 22(2):170–184. 10.18196/jesp.v22i2.10745
- Wieland, A. (2021). Dancing the supply chain: Toward transformative supply chain management. *JOURNAL OF SUPPLY CHAIN MANAGEMENT*, 57(1):58–73. <https://doi.org/10.1111/jscm.12248>

- www.ETGovernment.com (2024). Centre partners Visa to skill 20000 youth for tourism industry - ET Government. <https://government.economictimes.indiatimes.com/news/policy/centre-partners-visa-to-skill-20000-youth-for-tourism-industry/112939833>
- Xu, H., Zhang, C., & Lew, A. A. (2014). Tourism geography research in china: institutional perspectives on community tourism development. *TOURISM GEOGRAPHIES*, 16(5):711–716. 10.1080/14616688.2014.963663
- Yang, J., Wang, J., Zhang, L., & Xiao, X. (2020). How to promote ethnic village residents' behavior participating in tourism poverty alleviation: a tourism empowerment perspective. *FRONTIERS IN PSYCHOLOGY*, 11:2064. 10.3389/fpsyg.2020.0206
- Yasa, I. (2020). Community empowerment in tourism development during the digital era in north badung. *SOUTH EAST ASIA JOURNAL OF CONTEMPORARY BUSINESS, ECONOMICS AND LAW*, 21(5):217–221. https://seajbel.com/wp-content/uploads/2020/07/SEAJBEL21_265.pdf
- Yates, J. (2006). How business enterprises use technology: Extending the demand-side turn. *ENTERPRISE & SOCIETY*, 7(3):422–455. doi:10.1093/es/khl004
- Yildirim, S., S. & Esen, U. B. (2023). Social entrepreneurship activities in the tourism" sector: Bibliometric analysis and social network analysis. In *RESEARCH ANTHOLOGY ON APPROACHES TO SOCIAL AND SUSTAINABLE ENTREPRENEURSHIP*, pages 1253–1274. IGI Global. 10.4018/978-1-6684-7593-5.ch062
- Zhong, L., Zhu, M., Sun, S., & Law, R. (2021). Research progress and development of technology in tourism research: a bibliometric analysis. *JOURNAL OF SMART TOURISM*, 1(2):3–12. <https://doi.org/10.52255/smarttourism.2021.1>.

ANNEXURE

	Opinionnaire for evaluating empowerment of 5 Pillars for Atmanirbharta	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
EW1	After associating with the enterprise the overall household income has increased. उद्यम से जुड़ने के बाद कुल घरेलू आय में वृद्धि हुई है।					
EW2	After associating with the enterprise the overall household expenditure capacity has increased. उद्यम के साथ जुड़ने के बाद कुल घरेलू व्यय क्षमता में वृद्धि हुई है।					
EW3	The enterprise has offered new employment opportunities according to your employability skills. उद्यम ने आपके रोजगार कौशल के अनुसार रोजगार के नए अवसरों की पेशकश की है।					
EW4	The enterprise has educated \ trained you in any special skill. उद्यम ने आपको किसी विशेष कौशल में शिक्षित/प्रशिक्षित किया है।					
EW5	The enterprise is offering a steady income. उद्यम एक स्थिर आय की पेशकश कर रहा है।					
HW1	You have money left for spending after meeting your needs. आपके पास अपनी जरूरतों को पूरा करने के बाद खर्च करने के लिए पैसा बचा है।					
HW2	You are getting equal money for same type of Job. आपको एक ही प्रकार की नौकरी के लिए समान पैसा मिल रहा है।					
HW3	This is your sole source of income (livelihood). यह आपकी आय (आजीविका) का एकमात्र स्रोत है।					
HW4	Association with the enterprise has helped in education of your children. उद्यम के साथ जुड़ाव ने आपके बच्चों की शिक्षा में मदद की है।					
IN1	Association with the enterprise has helped in improving housing (shelter). उद्यम के साथ जुड़ाव ने आवास (आश्रय) को बेहतर बनाने में मदद की है।					
IN2	Association with the enterprise has helped in improving sanitation. उद्यम के साथ जुड़ने से थवच्छता में सुधार करने में मदद मिली है।					

IN3	After setting up of enterprise new roads were developed. उद्यम स्थापित करने के बाद नई सड़कों का विकास किया गया।					
IN4	After setting up of enterprise electricity supply has improved. उद्यम स्थापित होने के बाद बिजली आपूर्ति में सुधार हुआ है।					
SE1	Association with the enterprise makes you feel more connected to your community. उद्यम के साथ जुड़ना आपको अपने समुदाय से अधिक जुड़ा हुआ महसूस कराता है।					
SE2	Association with the enterprise provides ways for you to get involved in your community. उद्यम के साथ जुड़ाव आपको अपने समुदाय में शामिल होने के तरीके प्रदान करता है।					
SE3	Association with the enterprise has helped in revival of traditions. उद्यम के साथ जुड़ाव ने परंपराओं को पुनर्जीवित करने में मदद की है।					
SE4	Association with the enterprise has helped in transfer of traditional knowledge to your children. उद्यम के साथ जुड़ाव ने आपके बच्चों को पारंपरिक ज्ञान के हस्तांतरण में मदद की है।					
PE1	You have access to the decision- making process when it comes to product development. जब उत्पाद विकास की बात आती है तो आपके पास निर्णय लेने की प्रक्रिया तक पहुंच होती है।					
PE2	You feel your vote makes a difference in how the product is developed in the enterprise. आपको लगता है कि उद्यम में उत्पाद कैसे विकसित किया जाता है, इसमें आपके वोट से फर्क पड़ता है।					
PE3	You feel you have a place to share your concerns about product development. आपको लगता है कि आपके पास उत्पाद विकास के बारे में अपनी चिंताओं को साझा करने के लिए एक जगह है।					
TE1	Association with the enterprise has helped you in knowing how to use technology. उद्यम के साथ जुड़ाव ने आपको यह जानने में मदद की है कि प्रौद्योगिकी का उपयोग कैसे करें।					
TE2	The enterprise has trained you for using technology. उद्यम ने आपको प्रौद्योगिकी का उपयोग करने के लिए प्रशिक्षित किया है।					
TE3	Technology helped you to use your resources efficiently. प्रौद्योगिकी ने आपको अपने संसाधनों का कुशलतापूर्वक उपयोग करने में मदद की।					
TE4	Technology helped you in communicating within the enterprise. प्रौद्योगिकी ने आपको उद्यम के भीतर संचार करने में मदद की।					
TE5	Technology helped you to reach out to buyers. प्रौद्योगिकी ने आपको खरीदारों तक पहुंचने में मदद की।					
TE6	Technology improved your overall efficiency. प्रौद्योगिकी ने आपकी समग्र दक्षता में सुधार किया।					
RE1	The enterprise receives repeated orders. उद्यम को उत्पादों के पुनरावर्ती ऑर्डर प्राप्त होते हैं।					
RE2	The enterprise delivers the products on time. उद्यम समय पर उत्पादों को वितरित करता है।					
RE3	The delivery process of the product is easy and trouble-free. उत्पाद की वितरण प्रक्रिया आसान और परेशानी मुक्त है।					
RE4	There are fewer complaints from customers. उत्पादों के संदर्भ में ग्राहकों की शिकायतें कम हैं।					
RS1	The customer is informed immediately if products run out of Stock. उत्पादों का स्टॉक खत्म होने पर ग्राहक को तुरंत सूचित किया जाता है।					
RS2	Prompt service is given to the customers. ग्राहकों को त्वरित सेवा प्रदान की जाती है।					
RS3	Continuous effort is put to improve product. उत्पाद को बेहतर बनाने के लिए निरंतर प्रयास किया जाता है।					

RS4	Customers are happy with the response time. ग्राहक ऑर्डर प्रतिक्रिया समय से खुश हैं।					
FL1	The enterprise changes the output levels of products according to demand. उद्यम मांग के अनुसार उत्पादों के उत्पादन स्तर को बदलता है।					
FL2	The enterprise delivers products prior to planned delivery dates. उद्यम नियोजित डिलीवरी तिथियों से पहले उत्पादों को वितरित करता है।					
FL3	The enterprise introduces new products easily. उद्यम नए उत्पादों को बाजार में आसानी से पेश करता है।					
FL4	The enterprise modifies the variety of products produced. उद्यम उत्पादित उत्पादों की विविधता को संशोधित करता है।					
MG1	The work (done by the enterprise) you do is meaningful to you. आपके द्वारा किया गया कार्य (उद्यम द्वारा किया गया) आपके लिए सार्थक है।					
MG2	Your job activities are personally meaningful to you. आपकी नौकरी की गतिविधियाँ आपके लिए व्यक्तिगत रूप से सार्थक हैं।					
MG3	The job activity that you do is important to you. आपके द्वारा की जाने वाली कार्य गतिविधि आपके लिए महत्वपूर्ण है।					
CE1	You have mastered the skills necessary for your job. आपने अपनी नौकरी के लिए आवश्यक कौशल में महारत हासिल कर ली है।					
CE2	You are self-assured about your capabilities to perform your work activities. आप अपनी कार्य गतिविधियों को करने की अपनी क्षमताओं के बारे में आश्वस्त हैं।					
CE3	You are confident about your ability to do your job. आप अपना काम करने की क्षमता के बारे में आश्वस्त हैं।					
SD1	You have significant autonomy in determining how you do your job. आप अपना काम कैसे करते हैं यह निर्धारित करने में आपको स्वायत्तता है।					
SD2	You can decide on your own how to go about doing your own work. आप स्वयं यह निर्णय ले सकते हैं कि अपना कार्य कैसे करना है।					
SD3	You have considerable opportunities for independence and freedom in how you do your job. आपके पास अपना काम करने के तरीके में स्वतंत्रता और स्वतंत्रता के लिए पर्याप्त अवसर हैं।					
IM1	Your impact on what happens in the department is large. विभाग में जो होता है उस पर आपका प्रभाव बहुत बड़ा है।					
IM2	You have a great deal of control over what happens in your department. आपके विभाग में क्या होता है, इस पर आपका बहुत नियंत्रण है।					
IM3	You have significant influence over what happens in your department. आपके विभाग में क्या होता है, इस पर आपका महत्वपूर्ण प्रभाव है।					

Section II: Personal Profile (व्यक्तिगत प्रोफाइल)

Name (नाम) (optional): District (ज़िला):

Occupation:.....

Gender (लिंग): Male (पुरुष) (); Female (महिला) (); Other(अन्य) ()

Marital status (वैवाहिक स्थिति): Unmarried (अविवाहित) (); Married (विवाहित) ()

Age (आयु): 20-30 years (); 31-40 years (); 41-50 years (); More than 50 years ()

Education (शिक्षा): Below Matric (); Matric (माध्यमिक) (); Senior Secondary (वरिष्ठ माध्यमिक) ();

Graduate (स्नातक) (); Master Degree and above (स्नातकोत्तर स्तर) (); Others (specify).....

Monthly Income (मासिक आय): Below 10000 (); 10,000 - 30,000 (); 30,000 – 50,000 (); above 50,000 ()