DEVELOPMENT OF RURAL AGRO-BASED ENTREPRENEURSHIP ECOSYSTEM IN SOUTHERN MAHARASHTRA

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Abstract:

Being the livelihood of majority, the rural agro-based entrepreneurship ecosystem presents an enormous horsepower for economic development, especially in places like Southern Maharashtra. The present study endeavors to investigate these factors, the opinions of rural youth toward agrobased entrepreneurship, obstacles and problems experienced by rural farmers and entrepreneurs, in addition to plausible intervention strategies that could lead to a thriving entrepreneurial ecosystem. Based on a review of the literature, the study highlights key drivers such as access to finance, market linkages, technology adoption and public policy imperative for rural agroinformation entrepreneurs. The research highlights that much of the future agro-based entrepreneurship is in the hands of rural youth and while migration to urban areas remains a challenge, many young people do see opportunities for entrepreneurial activity in their home territories, so long as they are well supported. The study reveals problems like infrastructural hindrances, financial constraints and lack of modern technologies in the way of rural entrepreneurs. The study then suggests several strategies to tackle these challenges, including expanding access to finance, upgrading rural infrastructure, leveraging digital technologies and reaching out to rural youth with specialized training packages. Long-term success is also likely to depend on the development of cooperative models supported by government policy. An analysis of the selected studies has been provided and key themes which are pertinent to the development of the rural agro-entrepreneurial ecosystem in Southern Maharashtra were identified. The findings provide important insights for policymakers and stakeholders, as it analyses the determinants of rural entrepreneurship, youth perspectives, challenges faced and possible solutions. The next section concludes these findings to further enhance rural entrepreneurship.

The findings underpin the dynamics of rural agro-based entrepreneurship which fulfilling policy and operational recommendations can help, to silk the hand-brake of youth migration out-of-rural area. The methodology used to trace the evolution of the rural agro-based entrepreneurship ecosystem in Southern Maharashtra. It outlines the research design, systematic review process, how data were collected and the way in which data was analysed to achieve study objectives.

Keywords: Rural entrepreneurship, Entrepreneurship development, Infrastructure, Financial access, rural youth, Agro-based ecosystem and Migration etc.

Introduction:

Modest rural entrepreneurship is greatly substantial, especially agro-based enterprises, in developing the economy of agricultural-dominated regions like southern Maharashtra. One of the most important sectors in the region is agriculture and entrepreneurship can be built around this sector to bridge the economic gap, reduce youth migration, and strengthen rural livelihoods. The increasing emphasis on rural entrepreneurship particularly in sectors such as agro underscores the necessity to leverage local resources to turn them into viable business avenues that can drive sustainable rural development (Ricket et al. 2023). Nevertheless, rural enterprises are often at a disadvantage in these endeavours due to an underdeveloped infrastructure, limited capital and restricted market access.

Statement of the Problem

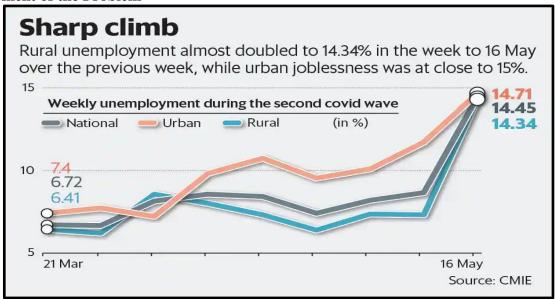


Figure 1: Rural unemployment rate

(Source: livemint.com, 2021)

Although Maharashtra is an agriculturally prosperous state, many rural areas have seen grave depopulation with youth migrating to urban areas as employment avenues in the former are severely restricted owing to a lack of industrial development and poor economic situation. Urban unemployment rose to 14.71 percent, up three percentage points from the previous week, with national unemployment estimated at 14.45 percent from 8.67 percent indicating a play out of jobs crisis seated in the backdrop of the second COVID wave in 2021 (livemint.com, 2021). The potential for agro-based entrepreneurship is not well explored, the rural economy is handicapped with poor business infrastructure, less financial support and limited entrepreneurial skill training. Also, with more youths moving out, the workforce is diminishing rendering the growth potential of these regions futile.

Aim and Objectives

The present study intends to understand the rural agro-based entrepreneurship ecosystem in southern Maharashtra, its problems and probable solutions for development of ecosystem.

- To understand factors affecting the Growth of Rural entrepreneurs in Southern Maharashtra.
- To assess the problem of rural farmers and entrepreneurs in designing sustainable agro based business.
- To understand the perception of rural youth on agro-based entrepreneurship, youth migration and rural economic development.
- To study the challenges faced by rural farmers and entrepreneurs in developing sustainable agro-based businesses.
- To Initiating measures and suggesting ways to promote a rural-agro based entrepreneurship ecosystem

Research Questions

- What drives the formation of rural agro based entrepreneurs in southern Maharashtra?
- How do rural youths perceive agro-based entrepreneurship and what were the push factors of youth migration in Southern Maharashtra?
- What main issues are the rural farmers and entrepreneurs work with struggling to overcome in their efforts to develop agro-businesses?
- How can a viable and sustainable rural agro-based entrepreneurial ecosystem be set and built up in the southern Maharashtra?

Significance of the Study

This paper is highly relevant to multiple stakeholders due to the importance of rural agro-based entrepreneurship ecosystem development in Southern Maharashtra. It provides evidence for policymaking in the identification of factors that facilitate rural entrepreneurship and potential policy interventions to address them and reduce youth migration. The study also offers a key set of challenges and opportunities for rural entrepreneurs and farmers to provide them with an informed solution in navigating with and leveraging the available resources. Further, these results can help move higher education institutions to develop more focused types of training intervention programmes for rural youth which could offer creative skills in entrepreneurship.

Future Scope

The study speaks to few areas of intervention for supporting and enabling rural agro-based entrepreneurship ecosystem in South Maharashtra. It recommends expanding financial services through improved microfinance and cooperative credit, investing in infrastructure to improve market access and reduce food loss, and enabling the use of digital technologies for a wider reach to the markets and operational efficiencies (Anis et al. 2022). The report also advocates for engaging in youth-led startups and agro-style enterprises through entrepreneurship education and vocational programs, to control migration by creating a new era of agro-entrepreneurs The importance of building cooperatives is also a way for rural entrepreneurs to pool resources and create greater market clout, as well as financial solvency. This report aims to enable a vibrant rural agro-based entrepreneurship ecosystem that drives economic growth, local employment, curbing migration and enhancing the livelihoods in Southern Maharashtra.

Literature Review

The revolution in rural agro-based entrepreneurship is important as it transforms the traditional economies of villages, leads to new job creations and ensures no rural-urban migration. This study

discusses the existing literature to understand the factors affecting rural entrepreneurship, attitudes of youths towards agro-based rural entrepreneurship, problems faced by entrepreneurs and measures for strengthening a sustainable agro-based entrepreneurship ecosystem. This review synthesises the current state of knowledge around rural entrepreneurship with a systematic analysis of studies in this field and provides a theoretical framework for understanding the processes of rural business development. Lastly, the section will establish research gaps in the literature that need to be addressed.

Systematic Review

Research	Keywords used	Author	Title of article	Using
Objective				methods
	Agri-startups;	Sabarish et	Evaluating the Impact	Primary
	technology	al. 2024	of Agri-startups on	
	transfer; farmers'		Technology Transfer:	
	perspectives;		Insights from Farmers	
	agricultural		in Madurai and	
	innovation.		Dindigul Districts,	
			Tamil Nadu, India	
		Egwuonwu&	Extent of Rural	Primary
	Entrepreneurship,	Iwunwanne,	Women Involvement	
	Agro-based	2020	In Agro-Based	
To identify the	activities, rural		Entrepreneurial	
factors	women		Activities In Imo State	
influencing rural	involvement		Nigeria	
Agro-based	Entrepreneurship,	Arumugam&	A study on somatic	Secondar
entrepreneurship.	Agricultural	Manida,	barriers and prospects	у
	Sector, Venture,	2023	of agri-women	
	Sustainable Rural		entrepreneurs in	
	Development,		Tamilnadu.	
	Economic			
	Growth			

	Agricultural	Mishra, 2024	Fostering Local	Primary
	entrepreneurship,		Economic	
	local economic		Development through	
	development,		Agripreneurship in	
	infrastructure		Nepal	
	development,			
	access to finance,			
	intellectual			
	capital, market			
	access,			
	perceptual factors			
	Rural	De Guzman	Rural communities as a	Primary
	communities,	et al.2020	context for	
	Youth		entrepreneurship:	
	Entrepreneurship,		Exploring perceptions	
	Entrepreneurship		of youth and business	
	education,		owners	
	COVID-19,	Tripathi&Agr	COVID-19, Reverse	Secondar
	MSME, migrant	awal, 2022	Migration and Crisis	y
	workers, skill		Management: A Study	
	mapping, re-		of the Model of	
	skilling,		Government of Uttar	
	governance		Pradesh (India).	
To understand	agriculture, rural	Nandi et	Farm parent and youth	Primary
the perception of	youth,	al.2022	aspirations on the	
rural youths on	aspirations,		generational succession	
rural agro based	gender, India		of farming: Evidence	
			from South India.	

entrepreneurship,	Agricultural	Arumuga&M	An Investigation into	Seconadr
youth's migration	diversification,	anida, 2023	the Challenges and	y
and rural	Government		Opportunities of Rural	
economic	initiatives,		Entrepreneurship in the	
development.	Infrastructural		State of Tamil Nadu.	
	challenges,			
	Rural-urban			
	linkages and			
	social			
	entrepreneurship,			
	Technology			
	adoption			
To study the	Agriculture,	Nuthalapati&	Requirement and	Primary
challenges faced	agripreneurship,	Sharma,	Availability of Cold-	
by rural agro-	success factors,	2021	Chain for Fruits and	
based	challenges		Vegetables in the	
entrepreneurs.			Country	
	Agriculture,	Frigenti et al.	The New Technology	Secondar
	Market, Finance,	2022	Frontier for	у
	Farmers,		Developing	
	schemes		Economies: Digital	
			Transformation to	
			Achieve the	
			Sustainable	
			Development Goals.	
	Agriculture,	Shree	Challenges faced by	Secondar
	SFAC, FPCs,	&Vaishnavi,	farmer producer	у
	Market, Finance,	2022	organisations (FPOs)-	
	Farmers		A review	

	agripreneurship,	Thammachak	The Agripreneurship in	Primary
	success factors,	et al. 2024	the Lao PDR:	
	traits,		Motivation,	
	characteristics,		Characteristics, and	
	challenges,		Success Factors.	
	obstacles			
	Women's Co-	Andrew et al.	The State of Women's	Primary
	Operatives,	2024	Co-operatives in	
	Economic		Malaysia: Challenges	
	Empowerment,		and Opportunities.	
To find out ways	Sustainable			
and means to	Development			
initiate the rural	Goals			
agro based	rural access; rural	Kaiser &	Rural transportation	Secondar
entrepreneurship	mobility;	Barstow,	infrastructure in low-	у
ecosystem.	infrastructure;	2022	and middle-income	
	transportation;		countries: a review of	
	low- and middle-		impacts, implications,	
	income countries;		and interventions	
	rural roads;			
	bridges;			
	maintenance			
	Vocational	Mullan&	Barriers to skills	Secondar
	Education;	Rolleston,	development in India's	у
	Training;	2020	informal economy.	
	Educational			
	policy;			
	educational			
	quality; access to			
	education; skills			

policy; Skills			
utilisation;			
Agricultural	Singh et al.	Importance of Agri-	Secondar
entrepreneurship,	2023	entrepreneurship in	у
Agristartup,		Indian economy: A	
Agri-preneurship,		Review.	
Agricultural			
sector.			

Table 1: Systematic Review

(Source: Self-developed)

Factors Influencing the Development of Rural Entrepreneurs

The establishment of rural entrepreneurs is influenced by the various factors that shaped these factors to either enable or inhibit entrepreneurial activities that exist within rural agro-based settings. The most important driver is access to financial resources. Access to finance is one of the key problems confronting rural entrepreneurs while they operate in developing economies like India, where traditional financial institutions are not easy to reach (Mishra, 2024). Tech transfer is central to building rural entrepreneur capabilities, specifically with agro-startups bringing innovative farming techniques (Sabarish et al. 2024).

According to Egwuonwu&Iwunwanne (2020), rural women participate in poverty alleviation through economic empowerment, but are often stifled by cultural norms, and lack of social support networks. Infrastructure, transportation and market accessibility are likewise a vital factor. Lack of infrastructure, including the absence of cold-chain systems, restricts start-ups from expanding into a larger market (Arumugam&Manida, 2023). On the other hand, vocational education and skill development will go a long way in ensuring that the rural entrepreneur is empowered to handle modern business environments. All this leads to an ecosystem which is conducive to rural entrepreneurship.

Perception of Rural Youth on Agro-Based Entrepreneurship and Migration

Rural youth's perception of agro-based entrepreneurship and migration is pivotal to rural economic development. In rural areas, youths face a dilemma of either staying local to farm or migrating to urban cities for the better opportunities. Agro-based agribusiness is also less attractive to the younger generation because it has a smaller potential income, and lack of innovation and infrastructure in rural areas (De Guzman et al. 2020). Arguably, these perceptions trigger youth migration, which in turn decreases the agricultural labour force and weakens the rural economies.

When rural youth are able to see agro-entrepreneurship as an option with real potential for expansion and continuation. Nandiet al. (2022) reported that South Indian youth tend to continue in agriculture if they were born into a farming family tradition and see an opportunity for generational succession. Studies also showed that the perceptions of agro-entrepreneurship as a less risky venture are changed through various government initiatives that are associated with

financial support, technology access and skill development (Arumuga&Manida, 2023). The absence of sustainable coaching and entrepreneurial education throughout rural regions plays a big role in why rural youth prefer migration over agro-based entrepreneurship. Resolution of these issues can lead to attracting rural youth for an opt-out option through vibrant agro-based entrepreneurship.

Challenges Faced by Rural Farmers and Entrepreneurs

Many of the agro-based businesses are either not growing at their potential or they are dying off because of different challenges that rural farmers and entrepreneurs face. Infrastructure is identified as a second pressing matter for example adequate road and rail networks, storage facilities are absent which in turn disturbs the flow of supply chains and connection to markets (Nuthalapati& Sharma 2021). The absence of cold-chain systems, for example, constraints farmers' ability to store fresh products inhibiting their market access and profitability.

Another major hurdle is financial challenges. Fewer financial services in rural parts of the country prevent rural entrepreneurs from accessing capital to incorporate technology and grow their operations (Frigenti et al. 2022). This gets worse because FPOs in India are not being supported by credit and the necessary infrastructure to overcome market and financial barriers. (Shree and Vaishnavi, 2022).

The study of Thammachak et al. (2024) has pointed out that technological adaptation and training for rural entrepreneurs are not available all the time, which leads their businesses to be less competitive in a rapidly changing market. Overcoming these difficulties necessitates a comprehensive strategy that focuses on infrastructure improvement, financial inclusion, and dedicated assistance and training for rural entrepreneurs.

Strategies to Initiate and Strengthen Rural Agro-Based Entrepreneurship Ecosystem

Strategies to develop a strong rural agro-based entrepreneurship ecosystem were promoting women's cooperatives to enable them to become thriving businesswomen and drive the rural economy. As per the study by Andrew et al. (2024), provides a supportive environment for women through which it is easier to access resources and market opportunities. The development of rural infrastructure, to make the movement of goods and services in a more efficient way with increasing capital costs, is paramount. Kaiser & Barstow (2022) assist in growing transportation infrastructure needs and balling districts are difficult to build markets with so less logistical problems. Establishing this infrastructure is crucial to connecting rural producers with larger markets and updating their competitiveness. The fundamental solution to the above problem is vocational education and training, this equips the rural entrepreneurs with qualities that are necessary for success. On the other hand, Mullan& Rolleston (2020) stated that improving the quality of rural area education is a key contributor to the success of entrepreneurship and application for training. Entrepreneurs need targeted training in business management, technology adoption and financial acumen to better manage challenges and take advantage of opportunities. More important of all, however, is the need to support agricultural entrepreneurship through facilitative government policies and programs. Singh et al. (2023) contend that it promotes sustainability from two angles: the functioning market for goods produced creates incentives of long-term interest but also leads to calming risk perception. Adopting these strategies would not only strengthen rural agro-based entrepreneurship & ecosystem but also foster a more vibrant and resilient rural economy.

Theoretical Framework Rural Development Theory

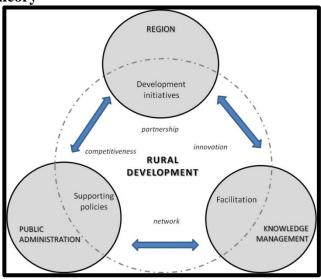


Figure 2: Rural Development Theory

(Source: David, 2021)

These ideas include infrastructure improvements as well as supporting access to basic services and building local capacity (David, 2021). A systems approach that encompasses education, healthcare and economic development is a significant part of this theory. Rural development theory, considered through the lens of agricultural entrepreneurship, provides a way of understanding how investments in infrastructure and services can anchor rural business activities.

Entrepreneurship Theory

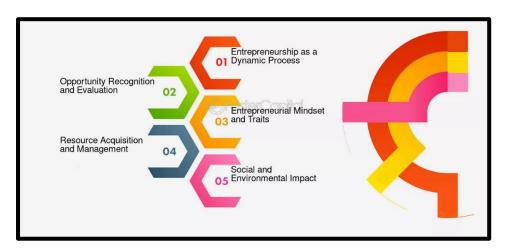


Figure 3: Concept of Entrepreneurship theory

(Source: Brieger et al. 2021)

Entrepreneurship theory also asserts that economic progress and betterment are driven by the actions of entrepreneurs. The theory highlights the importance of entrepreneurs in creating value which is achieved by means of new ideas, calculated risks and judicious utilisation of resources (Brieger et al.2021). In the case of the provision of rural areas; this theory offers relevant explanations on how entrepreneurs understand and exploit opportunities in spite of factors that hinder their endeavours. It also highlights the critical importance of factors such as access to finance, technology and markets in triggering commercial entrepreneurship.

Research Gap

Even though there is a large body of literature on rural agro-based entrepreneurship, lacunae still prevail. This paper observes that most existing studies only investigate individual elements, such as finance or technology transfer separately, leading to the need for an integrated model covering different influencing factors. Apart from that, studies on rural youths' perceptions regarding migration are mostly limited in the way that they justify these two combined occurrences as if they were straightforward issues. Longitudinal studies can address the short-term impacts and inform the understanding of how infrastructure, policy changes and technology can influence entrepreneurship in the long run. Comparative studies within regions are important to understand region-specific problems and solutions. Moreover, little research has been done on the impact of social and cultural determinants on entrepreneurial intentions.

Research Methodology

The research is a qualitative one, which uses secondary data, i.e. systematic literature review. It has made it possible to explore thoroughly the determinants of rural youth entrepreneurship and the characteristics of rural farming and entrepreneurship. The qualitative design is useful in providing an overall conclusion of the ecosystem in Southern Maharashtra through a combination of a variety of research studies.

Systematic Review Process

A structured approach was followed through the systematic review to identify, evaluate and synthesise relevant literature from rural agro-based entrepreneurship. The procedure was structured, starting with research questions that were searched using a Boolean search in databases such as Google Scholar following inclusion as well as exclusion criteria to limit adequate studies (Prill et al.2021). This study then extracted relevant data from the included studies and summarised the objectives, results, and design of each study. The results were grouped under thematic categories, which give an understanding of the various aspects affecting rural entrepreneurship, youth perceptions, challenges and approaches to building an ecosystem.

Data Collection

Secondary data were collected from journal articles, government documents and other academic studies based on their relevance to the research questions (Taherdoost, 2021). The systematic review provided a wider approx.-focused literature collection on rural agro-based entrepreneurship.

Data Analysis

Thematic analysis was employed to make sense of and organise the data that emerged from included studies in the systematic review. This process allowed us to discover the prevalent patterns and common issues concerning the hurdles, awareness, and sources of job opportunities for rural entrepreneurs.

Ethical Considerations

The analysis used publicly available secondary data and therefore did not involve Human Subjects. This study maintained the academic credibility and transparency of all sources that were properly cited.

Analysis and Findings

Analysis and findings present the analysis and findings of the systematic review conducted on the development of the rural agro-based entrepreneurship ecosystem in Southern Maharashtra. The section focuses on study selection and the thematic analysis of the data extracted from relevant literature. By examining key themes, this section identifies the factors influencing rural entrepreneurship, youth perceptions, challenges faced by farmers and entrepreneurs, and strategies to enhance the rural entrepreneurship ecosystem.

Thematic Analysis

Theme 1: Factors Influencing Rural Entrepreneurs

One of the determinant factors of rural agro-based entrepreneurship is capital access. Rural startups lack collateral so banks in the traditional banking system do not willingly lend to them since they apprehend risks. Nevertheless, even in newer financial models, such as micro-finance and cooperative banking, entrepreneurs benefit from better access to debt funding for capital investments in equipment, seeds and technology. The change in policies and rules has a direct effect on rural entrepreneurship. The introduction of subsidies, tax incentives, as well as skill development schemes encourage entrepreneurship in the region. Entrepreneurs in areas where the government is interested get training, develop infrastructure and start working to access markets (Kah et al.2022). The targeted subsidy reduces the costs of operation for rural entrepreneurs, especially when constructing or renovating buildings and required infrastructure in the industry that is related to management.

The review also recognized market access as another important factor. Rural entrepreneurs are often limited in their access to markets by a lack of infrastructure, transportation challenges and geographic isolation. This limits their ability to either expand or sell through in more lucrative urban markets. Investment in infrastructure and rural-urban market linkages is crucial for the success of rural entrepreneurs. Digital marketplaces and e-commerce platforms expand their reach, boosting sales and profits. The adoption of technology in the field of agriculture increases efficiency, prevents excessive spoilage, and accelerates crop production (Yadav et al. 2024). At the same time, this further opens up spaces for value-added products and services as well.

Theme 2: Perception of Rural Youth on Agro-Based Entrepreneurship and Migration

Across most developing areas, rural youth often have to choose between staying at home and farming, doing business or going to the city for a greater income. The majority of rural youth would like to migrate to high-wage towns in keeping with the urban lifestyle but, there is also an increase in agro-based entrepreneurship as a promising and fulfilling career opportunity.

With better resource accessibility predominantly in terms of education and training, agro-based entrepreneurship is perceived as a suitable option instead of migratory trends among youth (Mahawar et al. 2021). Engaging programs, such as vocational and entrepreneurship training, can improve the attitude of youth towards living in rural areas. However, this perception of becoming an entrepreneur is not helped by a lack of awareness, limited support mechanisms and poor access to capital. Most of the rural youth often do not know about agro-based businesses where they can engage or face challenges in getting resources to start. Based on the studies the results suggested suitable policy measures like awareness creation and institutional support to motivate the young minds towards agro-based entrepreneurship. In that case, labour shortages in agriculture are also exacerbated by the youth migration away from rural areas.

Theme 3: Challenges Faced by Rural Farmers and Entrepreneurs

Such challenges are seen more acutely in the case of rural entrepreneurs (more particularly those involved with agro-based enterprises). Poor infrastructure also affects the transport and storage capacity as well as production consistency due to challenges experienced. The market risks associated with the trade, including price volatility, demand fluctuation and lack of bargaining power with middlemen were also brought to attention. Many rural entrepreneurs are forced to sell at rock-bottom prices because they do not have access to bigger markets where they can make more profits (Chatterjee et al. 2022). They have no cold storage, which means that their valuable but perishable goods have to be sold rapidly, and often at a loss. Some of the entrepreneurs reached modern farming and business tools, but a large number still see problems in using their outdated ways since not everyone knows about how to benefit from them, because they are costly or because some areas have no good internet access. This technology gap has to be bridged for the sustained growth of rural agro-based entrepreneurship.

Theme 4: Strategies to Initiate and Strengthen the Ecosystem

Some of the strategies that emerge to overcome these challenges and spur a rural agro-based entrepreneurship ecosystem where foremost among them is the nurturing of cooperative models amongst small entrepreneurs giving them a platform to use larger resources in common, reap benefits together and sell to wider markets. Cooperatives can decrease barriers to finance and technology access, thereby improving the prospects for individual entrepreneurs (Thephavanh et al. 2022). Additionally, one of the critical strategies which emerged were Vocational training and entrepreneurship education. These programs thus help develop new enterprising skills and ideas among the rural youth and aspirant entrepreneurs that are one of the guiding factors for innovative entrepreneurship. The importance of government interventions in terms of infrastructure creation, financial inclusivity and adoption of technology were also covered among the essential areas to create an effective ecosystem for rural entrepreneurship.

Conclusion:

A study on the sustainable rural agro-based entrepreneurship ecosystem development in Southern Maharashtra with the objective to find out key driving factors towards rural entrepreneurship, the perspective of a rural youth about their entrepreneurship, challenges from farmers and an entrepreneur side in the rural area for successful sustained livelihood and strategies towards the growth of agro-entrepreneurship that contribute larger scale entrepreneurial-led endogenous regional development based on innovative technologies using existing resources. Their findings

exposed important opportunities for expansion, but underscored a series of obstacles in place keeping rural entrepreneurs from reaching their full potential. The success of agro-based entrepreneurs depends largely on access to finance, government policies and technological adoption are the main factors. Important issues, like limited market access, substandard infrastructure and weak fiscal opportunities are the primary obstacles yet. Nevertheless, rural youth are increasingly becoming aware of the possible returns to agro-entrepreneurship but scarce opportunities in their communities persist and make urban migration quite appealing.

These include problems of finance, infrastructure and technology confronted by any entrepreneur. Nevertheless, positive actions like promoting cooperative models, government support for training programs and integrating digital technologies can smoothen the way. Tangential aspects of the rural agro-based entrepreneurship ecosystem are the need for cross-sectoral collaboration especially via reduced resource accessibility and improved market linkages.

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