



Prospects of Sustainable Entrepreneurship in Kerala: An Exploration of KINFRA Industrial Parks

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Abstract

Sustainable entrepreneurship is a novel concept that links the idea of 'sustainable development' with business activities and hence encompasses new dimensions in modern business practices. It inculcates the consciousness to evolve businesses that would benefit the economy as well as the society at large. Industrial parks are receiving increasing attention in the sustainability discourse and its basic mandate is to nurture appropriate industries along with expanding the industrial base of the economy with global standards in quality, technology and management. Establishment of KINFRA industrial parks attempts to explore an ecosystem where productive and innovative entrepreneurship germinates, sustains and grows leading to the creation of a more vibrant and dynamic industrial economy in Kerala. It is in the context, the paper attempts to explore the prospects of sustainable entrepreneurship in the State with particular reference to the operational performance of KINFRA industrial parks.

Keywords: Kerala Industry, Industrial Parks, Operational Efficiency, KINFRA, Sustainable Entrepreneurship, Sustainable Business.

1.1. Introduction:

Global developments now place emphasis on sustainability as an obvious goal and sustainable entrepreneurship has become a novel area of entrepreneurship providing the link between sustainability management, entrepreneurial activities and sustainable development. Entrepreneurship is often considered as an important economic function of any economy, particularly in driving innovations for industrial development. The Kerala Industrial Infrastructure Development Corporation (KINFRA) stands as a flagship of the industrial fleet of Kerala. Being the industrial catalyst of the State, it promotes the concept of 'industrial parks' with a view to create a State where industry thrives in the midst of the rich green environs and where people flourish in an achievement that fosters growth and the freedom to innovate. KINFRA plays a pivotal role in promoting a typical entrepreneurial culture in Kerala by attracting prospective entrepreneurs and investors to the core competency sectors of the State.

Governments always attempt to promote sustainable entrepreneurship in the State with the promotion of different initiatives on entrepreneurship development.

Being the functional arm of the Government, KINFRA provides immense opportunities of entrepreneurship and galvanises investments so as to positively transform the industrial scenario of the State into a much more dynamic and vibrant one. As the industrial facilitator of the State, KINFRA is centred on the identification, evaluation and exploitation of business opportunities in the State and has completed more than 25 years of its operation. It is having around 25 fully operational parks and around 15 premier ongoing projects on anvil at present. The ambience and flawless infrastructure facilities available in the industrial parks aim to provide a typical business or entrepreneurial culture for the development of a high-tech, non-polluting and export-oriented industries and thereby create top-notch 'industrial spots' or 'industrial townships' in the domestic economy of the State.

1.2. Research Problem:

Sustainable entrepreneurship refers to the discovery, creation, and exploitation of entrepreneurial opportunities that contribute to sustainability by generating social and environmental gains for others in society (Hockerts and Wustenhagen, 2010; Pacheco et al., 2010; Shepherd and Patzelt, 2011). Industrial parks set up by KINFRA throughout the State are actually the welcome hubs for the prospective entrepreneurs to the State and as such stand for the deployment of entrepreneurial innovations. Through entrepreneurial innovations, business opportunities are detected and resources are deployed towards translating the idea generated into viable business ventures. Thus, it becomes imperative to examine the avenues of sustainable entrepreneurship in Kerala with the avowed objective of exploring whether and to what extent KINFRA industrial parks can accommodate the conduct of businesses in a sustainable manner.

1.3. Objectives of the Study:

Industrial parks can develop certain synergies and a typical entrepreneurial culture in the industrial economy of any country in terms of excellent institutional framework, support services and physical infrastructure and are aptly treated as policy drivers to foster sufficing investments, employment, competitiveness, sustainable business strategies and regional economic development. KINFRA unleashes the industrial potential of the State and thereby enables its progressive and sustainable industrial development. In the context, the study attempts two major objectives, namely: (i) to examine the extent of 'opportunities for sustainable entrepreneurship' as envisaged by KINFRA industrial parks in Kerala and (ii) to explore the basic dimensions of 'opportunities for sustainable entrepreneurship' as provided by KINFRA industrial parks on the industrial economy of the State.

1.4. Hypotheses & Test(s):

Since its inception in 1993, KINFRA is busy with a mission to make the State the most favoured destination for competitive industrial development with the provision of commendable infrastructure and support services. Within the framework of the research objective, the study attempts to test a hypothesis as: (i) the operational efficiency of KINFRA industrial parks in terms of the 'opportunities for sustainable entrepreneurship' is nugatory. The hypotheses are being tested by using Wilcoxon Signed Rank Test, based on the 'median' value of the data collected.

1.5. Methodology:

KINFRA has completed nearly 30 years of its operation in Kerala. The study takes into account a period of 15 years of its operation (2005-2020) for exploration and analysis. There are a total of around 25 fully operational industrial parks and the study takes into account only the case of those industrial parks which have been set up before the year 2015. So, the total number of sample is 20 fully operational industrial parks. The study uses both primary and secondary data. Data have been collected and arranged by using a 5-point likert scale as shown below:

Scale Value	Choice of Evaluation	Standard Score
1	Completely Agree	100
2	Mostly Agree	75
3	Neither Agree Nor Disagree	50
4	Mostly Disagree	25
5	Completely Disagree	00

1.6. Analysis of Opportunities for Sustainable Entrepreneurship:

KINFRA provides specialised services which help the entrepreneurs in identifying viable opportunities and assessing their own capabilities for doing better business. It inculcates and synergises the positive aspects of industrialisation by the provision of entrepreneur-friendly incentives and services. The customised and need-based services and assistance to the entrepreneurs enable them to reduce their operating costs, help them to reap excellence in their respective businesses. It works without affecting the ecology and environment of the industrial economy and always attempts to provide the entrepreneurs opportunities for the sustained growth, expansion and diversification of their businesses with specific thrust to the development of the core competency sectors of the State. Thus, it becomes imperative to explore the viability of the business environment provided by KINFRA with respect to the 'opportunities for sustainable entrepreneurship' which is presumed as a composite index having certain parameters addressing the operational effectiveness of KINFRA in terms of sustainable entrepreneurship.

1.6.1. Opportunities for Sustainable Entrepreneurship – Aspects for Evaluation:

The major aspects for evaluating the 'opportunities for sustainable entrepreneurship' as provided by the KINFRA industrial parks in Kerala are given below:

Parameters	Description
1	Different schemes for attracting prospective entrepreneurs.
2	Immense scope for the expansion of industrial units.
3	Ample space for the diversification activities of the industrial units.
4	Possibilities for maintaining growing relationships with customers.
5	Managing the community involvement and societal commitment of the entrepreneurs.
6	Better choice for the entrepreneurs to start and sustain their business.

1.6.2. Opportunities for Sustainable Entrepreneurship – Operational Efficiency:

The responses on the major aspects of evaluation of ‘opportunities for sustainable entrepreneurship’ of KINFRA industrial parks in Kerala are given below:

Evaluation Parameters	Scale and Proportion					Majority	
	1	2	3	4	5	Response	Per Cent
Parameter-1	12	06	00	00	00	Completely Agree	66.7
	(66.7)	(33.3)	--	--	--		
Parameter-2	17	04	00	00	00	Completely Agree	77.8
	(77.8)	(22.2)	--	--	--		
Parameter-3	07	11	00	00	00	Mostly Agree	61.1
	(38.9)	(61.1)	--	--	--		
Parameter-4	04	11	03	00	00	Mostly Agree	61.1
	(22.2)	(61.1)	(16.7)	--	--		
Parameter-5	00	03	05	10	00	Mostly Agree	55.6
	--	(16.7)	(27.7)	(55.6)	--		
Parameter-6	11	07	00	00	00	Completely Agree	61.1
	(61.1)	(38.9)	--	--	--		

Source: Survey Research.

1.6.3. Opportunities for Sustainable Entrepreneurship – Statistical Testing & Interpretation:

The major aspects and responses on the ‘opportunities for sustainable entrepreneurship’ of KINFRA industrial parks in Kerala are given below:

H₀	The operational efficiency of KINFRA industrial parks in terms of ‘opportunities for sustainable entrepreneurship’ is nugatory.
Test	Wilcoxon Signed Rank (Median) Test
Hypothetical Median	3
P-value	8.790 ⁻⁵
Observed Median	1.5 (True location is less than 3)
Decision	Reject the null hypothesis (H ₀) and accept the alternative hypothesis (H ₁).
H₁	The operational efficiency of KINFRA industrial parks in terms of ‘opportunities for sustainable entrepreneurship’ is ‘mostly effective.’

The responses on each of the select parameters of the criteria ‘opportunities for sustainable entrepreneurship’ is analysed and the status of operational efficiency in terms of the chosen parameters is recorded with corresponding scores. Having been set the null hypothesis as ‘the operational performance of KINFRA industrial parks in terms of ‘opportunities for sustainable entrepreneurship’ is nugatory’, the study uses Wilcoxon Signed Rank Test for testing the hypothesis. Assuming a hypothetical median value of 3 in a 5-point likert scale, the observed median is 1.5 with a P-value of 8.790⁻⁵. The null hypothesis is therefore rejected and the study accepts the alternative hypothesis,

signifying the operational performance of KINFRA industrial parks in terms of the parameter 'opportunities for sustainable entrepreneurship' is mostly effective.

1.8. Conclusion:

Sustainable entrepreneurs ensure businesses are done in a sustainable manner. Common ground between 'entrepreneurship' and 'sustainability' is the concept of longevity, assuring long lasting goods, values or services – preserving current resources for future generations (sustainability) and developing unique solutions for the long run (entrepreneurship). The infrastructure and support services offered by KINFRA industrial parks attract entrepreneurs from across the world to the industrial landscape of Kerala and have positively contributed to its industrial development. To develop more sustainable enterprises, governmental agencies should provide adequate information and enlightenment on the need for sustainable entrepreneurship among the small and medium enterprises. Adequate knowledge and awareness to pursue sustainable entrepreneurial business practice enables positive organisational reputation, market preference and opportunities, and improvement in internal business dynamics. As an innovative and promising strategy for the sustainable industrial development of the regional economy, KINFRA industrial parks integrate business success, environmental excellence and community connections with certain cascading effects on the regional industrial economy.

Select Reference:

- Boons, F. and Ludeke-Freund, F. (2013). 'Business Models for Sustainable Innovation: State-of-the-art and Steps towards a Research Agenda' in *Journal of Cleaner Production*, 45: 9-19.
- Gibbs, D. and Deutz, P. (2007). 'Reflections on Implementing Industrial Ecology through Eco-Industrial Park Development' in *Journal of Cleaner Production*. 15(17): 1683-1695.
- Government of Kerala. (2022). *Economic Review 2021*. Thiruvananthapuram: Kerala State Planning Board.
- (2019). *The Kerala Industrial and Commercial Policy 2018*. Thiruvananthapuram: Department of Industries and Commerce.
- Greco, A. and De Jong G. (2018). *Sustainable Entrepreneurship: Definitions, Themes and Research Gaps*. Working Paper Series. Centre for Sustainable Entrepreneurship, University of Groningen.
- Institute for Studies in Industrial Development (ISID). (2010). *SME Clusters in India: Identifying Areas of Intervention for Inclusive Growth*. New Delhi: ISID.
- Markman, G.D., Russo, M., Lumpkin, G.T., Jennings, P. and Mair, J. (2016). 'Entrepreneurship as a Platform for Pursuing Multiple Goals: A Special Issue on Sustainability, Ethics, and Entrepreneurship' in *Journal of Management Studies*. 53(5): 673-694.
- Noufal, P. (2020). 'Operational Performance of KINFRA Industrial Parks in Kerala: Select Inferences' in *EPRA International Journal of Multidisciplinary Research*. 6(8): 115-122.
- (2019). *Operational Efficiency of KINFRA Industrial Parks and Its Impact on the Industrial Development of Kerala*. Unpublished Ph.D. Thesis. University of Calicut.
- Saleman, Yannick and Luke Simon Jordan (2013). *The Implementation of Industrial Parks—Some Lessons Learned in India*. Washington, DC: World Bank.
- Weidinger, C. (2014). 'Business Success through Sustainability' in *Sustainable Entrepreneurship*. Berlin Heidelberg: Springer.