

## A Study on the Opportunities and Challenges of Agripreneurship with reference to Horticulture in Karnataka State

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### Abstract

Entrepreneurship has been described as the competence and willingness to develop, organize and manage a business venture along with any of its risks in order to make a profit. While major proportion of start-up businesses have to close due to various internal and external environmental factors. In the era of development of small business enterprises, the Agripreneurship has been emerged as one of the important small business sectors that can contribute significantly to the economy through generation of employment opportunities to the rural youths and nation's prosperity. In this context horticulture is one of the major area of agribusiness which comprises Cultivation of Medicinal Plants, Floriculture, Nursery, Land Scaping, Horticulture Clinic, Tissue Culture, Vegetables Production and Marketing. The study is an effort carried out to analyse the opportunities and challenges of agripreneurship based on social factors like gender and age in agribusiness associated with horticulture. A total of 141 agripreneurs in Horticulture from Karnataka state were selected based on Cluster Sampling method and were surveyed using pre-tested interview schedule and the collected data were analysed using descriptive statistics, Independent Sample t test and one

way ANOVA. The study results indicate that there exists significant difference in the opportunities of agripreneurship based on gender but not in the challenges faced. On the other hand, age does not bring any significant difference in the way of perceived opportunities and faced challenges of agripreneurs.

**Key Terms:** Agribusiness, Agripreneurs, Economy, Finance, Horticulture

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## Introduction:

Horticulture plays a significant role in the agricultural landscape of Karnataka. State has diverse agro-climatic conditions, ranging from coastal regions to the Deccan Plateau and the Western Ghats, which provide favorable conditions for horticultural crops. The state's horticultural sector is known for its production of fruits, vegetables, spices, flowers, and medicinal plants. Agribusiness in horticulture refers to the application of business principles and practices in the cultivation, production, processing and distribution of horticultural crops. Horticulture encompasses a wide range of plants, including fruits, vegetables, flowers, ornamental plants, and medicinal plants.

Agribusiness in horticulture involves various activities and stakeholders, including farmers, producers, processors, distributors, retailers and consumers.

- **Farming and Production:** Includes selecting suitable varieties, preparing the land, planting, irrigation, pest control, fertilization and harvesting.
- **Processing and Value Addition:** Consist of cleaning, sorting, grading, packaging, preservation (such as freezing, canning, or drying) and manufacturing value-added products like juices, jams, sauces, or floral arrangements.

- Supply Chain Management: comprises transportation, storage, warehousing, logistics, and distribution.
- Marketing and Sales: occupies branding, packaging design, advertising, trade shows, online platforms, and establishing relationships with wholesalers, retailers, restaurants, and other potential buyers.
- Export and International Trade: Horticultural products are often traded internationally, creating opportunities for agribusinesses to expand their markets.
- Research and Development: Agribusinesses invest in research and development to improve horticultural practices, develop new varieties, enhance crop protection, optimize production techniques and address environmental concerns. This involves collaboration with agricultural research institutions, universities, and technology providers.
- Sustainability and Environmental Considerations: Embraces implementing eco-friendly farming practices, water conservation, waste management, reducing chemical inputs and adopting organic or integrated pest management approaches.

- Policy and Regulations: Framework of government policies and regulations like agricultural subsidies, import/export regulations, food safety standards, environmental regulations and labor laws.

The agribusiness sector in horticulture offers diverse opportunities for entrepreneurs, investors, and professionals, contributing to food security, economic growth, and sustainable development.

### **Literature Review:**

*Suminah et.al (2023)* exposed that agribusiness empowers the sustainability of agriculture sector and economy of the nation. Hence they suggested that effective efforts to revive and development of agribusiness needs to be done through intensive post intervention assistance for agribusiness until their business runs well. In addition, empowerment will be successful if agribusiness uses existing resources in its implementation such as human, economic and finance capital. The existence of resources needs to be improved as they can directly influence the agribusiness environment. Also relevant stakeholders such as government, universities and nongovernmental organizations, industrial world that implements CSR funds for empowerment programs and communities who are interested should support agribusiness to attain sustainable agribusiness goal.

*Lee (2021)* described that innovation and technology adoption play a significant role in the development and growth of horticulture agribusiness and in the recent year's advancements in technology have revolutionized the way horticultural crops are produced, processed, and marketed. Innovation and technology adoption in horticulture agribusiness like precision farming and smart agriculture, protected cultivation and controlled environments, post-harvest technologies, e-commerce and digital marketing have brought significant benefits including increased productivity, resource efficiency, product quality and market access. Hence he recommended that it is important to consider the affordability, accessibility and to provide required training for small-scale growers to adopt these technologies. Additionally, addressing potential environmental and social impacts, as well as ensuring equitable distribution of benefits are important considerations for the sustainable development of horticulture agribusiness.

*Chen (2019)* opined that the horticulture agribusiness sector plays a significant role in global food production and faces the challenge of balancing productivity with environmental sustainability but the sector is facing major challenges like climate change, water scarcity and irrigation management, pests and diseases, market volatility and price fluctuations, labor shortages and access to finance and technology. Hence they suggested that by implementing the various horticulture agribusiness technologies like precision agriculture, integrated pest

management, organic farming, water conservation and waste management helps agribusiness to grow faster and enable to compete in market.

*Nunow (2018)* found that land acquisition is mostly done through inheritance with males having a greater power to own the lands than women's and they have been left out in making land decisions, as well as, its control. It is the reason and key aspect which has left them outside horticultural farming. Also found that micro finance groups are major source of credit in the country to facilitate their farming and marketing activity. Hence they suggested that women's having land of their own helps them to do any kind of income generating activity in the farm including agribusiness and using digital platforms, increasing farming scales and irrigation and specialization helps to place agribusiness on a higher level.

*Jari & Fraser (2009)* opined that the horticulture farmers are facing certain encounters in market atmosphere that hinders them from accessing proper market and thus they typically use unceremonious markets for selling their harvest. Market information access, standard and grade expertise, agreements availability, social capital existence, upright marketplace infrastructure availability, cluster contribution and tradition dependence are identified as certain aspects that every farmers need to know but lack of access to these faculties are the major problems. Hence it is suggested that technological development and institutional progress

needs to be developed and assistance to farmers needs to be given to agripreneurs for participating in formal market.

### **Statement of the Problem and Need for the Study:**

Agripreneurial activities of horticulture in Karnataka established in both rural and urban areas with enormous scope but lack of proper planning, production technology, lack of subsidy and incentives component and improper marketing information, lack of hand holding support from the institutes are some of the major problems faced by the agri entrepreneurs in establishing their ventures. On the other hand heavy competition from the well-established dealers, non-co-operation of farmers in repaying credit and insufficient cash on hand while starting the business along with this existence of unequal treatment, opportunities and representation of individuals based on their gender within the agricultural industry and non access to resources, decision-making power, employment opportunities and representation in leadership positions are the major problems in running the start-up ventures. With this background present study is intended to analyse opportunities and challenges of agripreneurs based on social factors like gender and age tried to support in eliminating the problems of Agripreneurs to reach them through timely assistance and action plans.



**Research Gap:**

No evidences of research work undertaken to study the opportunities and challenges of agripreneurs in Karnataka state considering horticulturists are available. Further, no works have tried to figure out the difference in the opportunities and challenges of agripreneurs based on social factors like gender and age. The present work tries to fill the existing research gap.

**Research Question:**

Whether there exists any significant difference in the opportunities and challenges of agripreneurs based on social factors like gender and age?

**Study Objective:**

The objective is to study the opportunities perceived and the challenges faced by agripreneurs in Karnataka considering the broad agribusiness field of horticulture. It further explores difference in mean rating scores of opportunities and challenges of agripreneurs based on gender and age.

**Hypotheses of the Study:**

*“H1: There is no significant difference in opportunities and challenges according to Gender of respondents.”*

*“H2: There is no significant difference in opportunities and challenges according to age of respondents.”*

### **Scope of the Study:**

The study is carried out by covering the agripreneurs in horticulture which is one of the six broad business categories of agripreneurship in Karnataka state. Further horticulture has seven specific business categories which are completely covered in the study.

### **Research Design:**

The work is exploratory cum descriptive in nature.

### **Sample Design:**

From a total population of 1681 agri business units in Karnataka with six broad business categories, the cluster of horticulture with 141 agripreneurs covering seven specific business categories i.e., Cultivation of Medicinal Plants- 14, Floriculture-21, Nursery- 50, Land Scaping and Nursery- 15, Horticulture Clinic- 23, Tissue Culture- 11, Vegetables Production and Marketing- 7 has been considered as sample of the study based on cluster sampling method.

**Data Sources:**

Primary data were collected from the sample respondents through an interview schedule whereas secondary data were from relevant research articles in journals, books, e-sources and theses.

**Research Instrument:**

A structured interview schedule was used to collect the required data from sample respondents.

**Analytical Tools:**

Data collected were analysed using SPSS software. Statistical tools like descriptive statistics, Independent Sample t test and one-way ANOVA were used to present and test the data in order to fulfill the objectives of the study.

**Data Analysis and Interpretation:****I. The Gender Effect**

This section investigates the effect of gender on the challenges and opportunities among agripreneurs in Karnataka there by entrepreneurial opportunities and challenges will be tested against the difference in gender using one sample T test to find out if there is a significant difference in opportunities and challenges among agripreneurs due to the gender difference.

**Table-1.1**  
**The Effect of Gender**

Gender Effect	Category	N	Mean	Std. Deviation	t	df	p
Opportunities	Male	120	68.70	14.402	3.190	425	0.002
	Female	21	62.23	17.784			
Financial Challenges	Male	120	35.46	6.330	0.862	425	0.389
	Female	21	34.72	6.268			
Technical Challenges	Male	120	30.91	8.255	-1.460	425	0.145
	Female	21	32.55	8.385			
Production Challenges	Male	120	31.75	6.527	1.940	425	0.053
	Female	21	29.98	7.679			
Government Challenges	Male	120	23.84	5.970	1.007	425	0.315
	Female	21	23.02	6.572			
Marketing Challenges	Male	120	44.31	9.901	0.299	425	0.765
	Female	21	43.91	10.027			
Labour Challenges	Male	120	16.87	4.811	0.662	425	0.508
	Female	21	16.44	4.670			

Source: Primary Data Analysis

As exhibited in Table-1.1 opportunities are observed to differ between male and female agripreneurs ( $t = 3.190$ ,  $p = 0.002$ ), this could relate to the way opportunities are utilized from the perspective of agripreneurs based on their gender.

Entrepreneurial challenges are not found to be affected by the gender of respondents. As shown in the table, financial ( $t = 0.862$ ,  $p = 0.389$ ) technical ( $t = -1.460$ ,  $p = 0.145$ ) production ( $t = 1.940$ ,  $p = 0.053$ ) government ( $t = 1.007$ ,  $p = 0.315$ ) marketing ( $t = 0.299$ ,  $p = 0.765$ ) and labour challenges ( $t = 0.662$ ,  $p = 0.508$ ) are similar between males and females, indicating that there is no significant difference in such challenges between the two categories of gender. It also indicates that agripreneurs perceive the challenges similarly regardless of the difference of gender.

This indicates that the first part of the first hypothesis (H1) which states that “H1: There is no significant difference in opportunities and challenges according to Gender of respondents.” is **partially rejected because the difference is observed only in opportunities.**

## II. The Effect of Age

This section examines the effect of age of agripreneurs on the two variables in the study which means the significant difference in opportunities and challenges is investigated against the difference in the age of agripreneurs.

**Table-1.2**  
**The Effect of Age**

Age Effect	Category	N	Mean	Std. Deviation	F	Sig.
Opportunities	<30 Years	23	66.87	15.390	0.634	0.594
	30–40 Years	54	68.99	13.940		
	40–50 Years	37	67.25	16.298		
	>50 Years	27	66.63	15.491		
	Total	141	67.73	15.111		
Financial Challenges	<30 Years	23	36.59	4.753	1.244	0.293
	30–40 Years	54	35.36	5.813		
	40–50 Years	37	34.88	6.836		
	>50 Years	27	34.90	7.567		
	Total	141	35.35	6.319		
Technical Challenges	<30 Years	23	32.11	8.127	0.601	0.615
	30–40 Years	54	31.36	8.131		
	40–50 Years	37	30.63	8.530		
	>50 Years	27	30.64	8.436		
	Total	141	31.15	8.285		
Production Challenges	<30 Years	23	31.09	6.936	2.183	0.089
	30–40 Years	54	31.90	6.512		
	40–50 Years	37	30.33	7.421		
	>50 Years	27	32.62	5.744		
	Total	141	31.48	6.732		
Government Challenges	<30 Years	23	24.14	5.678	0.212	0.888
	30–40 Years	54	23.73	6.347		
	40–50 Years	37	23.41	6.186		
	>50 Years	27	23.77	5.701		
	Total	141	23.41	6.186		

	Total	141	23.72	6.063		
Marketing Challenges	<30 Years	23	45.21	10.445	0.999	0.393
	30–40 Years	54	43.26	10.275		
	40–50 Years	37	44.41	9.892		
	>50 Years	27	45.16	8.623		
	Total	141	44.25	9.909		
Labour Challenges	<30 Years	23	17.49	3.635	0.752	0.521
	30–40 Years	54	16.60	5.240		
	40–50 Years	37	16.52	4.854		
	>50 Years	27	17.01	4.633		
	Total	141	16.80	4.787		

Source: Primary Data Analysis

As shown in Table-1.2 it is observed that opportunities do not differ among agripreneurs according to the difference in their age ( $F = 0.634$ , and  $p = 0.594$ ), which means whether agripreneurs are young or adult, their perception of opportunities remains similar.

In a similar vein, it is observed that entrepreneurial challenges did not differ according to the difference in the age of agripreneurs revealing that financial ( $F = 1.244$ , and  $p = 0.293$ ), technical ( $F = 0.601$ , and  $p = 0.615$ ), production ( $F = 2.183$ , and  $p = 0.089$ ), government ( $F = 0.212$ , and  $p = 0.888$ ), marketing ( $F = 0.999$ , and  $p = 0.393$ ) and labour challenges ( $F = 0.752$ , and  $p = 0.521$ ) are the same across agripreneurs regardless of the difference in their age.

This indicates that the part of the second hypothesis that states “*H2: There is no significant difference in opportunities and challenges according to age of respondents.*” is accepted as no difference is observed in opportunities and challenges.

## Major Findings of the Study:

- There is significant difference in the opportunities observed in agripreneurship between male and female agripreneurs ( $t = 3.190$ ,  $p = 0.002$ ).
- There is no significant difference in the financial challenges faced between male and female agripreneurs ( $t = 0.862$ ,  $p = 0.389$ ).
- There is no significant difference in the technical challenges faced between male and female agripreneurs ( $t = -1.460$ ,  $p = 0.145$ ).
- There is no significant difference in the production related challenges faced between male and female agripreneurs ( $t = 1.940$ ,  $p = 0.053$ ).
- There is no significant difference in the government policy related challenges faced between male and female agripreneurs government ( $t = 1.007$ ,  $p = 0.315$ ).
- There is no significant difference in the marketing challenges faced between male and female agripreneurs ( $t = 0.299$ ,  $p = 0.765$ ).
- There is no significant difference in labour challenges faced between male and female agripreneurs ( $t = 0.662$ ,  $p = 0.508$ ).
- Thus, there is significant difference in Entrepreneurial Opportunities and no significant difference in Challenges faced between male and female agripreneurs.

- There is no significant difference in the opportunities observed in agripneurship between different age groups of agripneurs ( $F = 0.634$  and  $p = 0.594$ ).
- There is no significant difference in the financial challenges faced between different age groups of agripneurs ( $F = 1.244$  and  $p = 0.293$ ).
- There is no significant difference in the technical challenges faced between different age groups of agripneurs ( $F = 0.601$  and  $p = 0.615$ ).
- There is no significant difference in the production related challenges faced between different age groups of agripneurs ( $F = 2.183$  and  $p = 0.089$ ).
- There is no significant difference in the government policy related challenges faced between different age groups of agripneurs ( $F = 0.212$  and  $p = 0.888$ ).
- There is no significant difference in the marketing challenges faced between different age groups of agripneurs ( $F = 0.999$  and  $p = 0.393$ ).
- There is no significant difference in labour challenges faced between different age groups of agripneurs ( $F = 0.752$ , and  $p = 0.521$ ).
- Thus, there is no significant difference in Entrepreneurial Opportunities and Challenges faced between different age groups of agripneurs.



**Suggestions:**

- Governments can enact policies and laws that promote gender equality in agribusiness, including land rights, access to credit, anti-discrimination measures and also implementation and enforcement of existing laws are crucial for women engagement in agribusiness.
- Investing in gender-responsive agricultural education, training and extension services can empower women with the necessary skills and knowledge to actively participate in agribusiness and overcome gender biases.
- Measures should be taken to enhance women's access to productive resources such as land, credit, technology and markets. This can involve targeted programs, financial services tailored to women's needs and initiatives to bridge the gender gap in agricultural extension services.
- Encouraging and supporting women's leadership in agribusiness through mentorship programs, training, and networks can help increase their participation in decision-making processes at all levels.
- Raising awareness about gender biases in agribusiness and adopting social norms that enables equality are essential and impactful.

**Conclusion:**

Agribusiness in horticulture plays a vital role in meeting the increasing global demand for fresh produce, improving food security, promoting sustainable agriculture practices. It holds great potential for economic development, sustainable food production and environmental upgradation by embracing innovation, adopting sustainable practices and responding to consumer demands. By engaging women's in agribusiness and giving them an access to land, advanced agricultural technologies, modern farming practices and providing them a proper training and financial support helps more to grow the agribusiness industry and helps to effective management of horticulture agribusiness and it enables rural development by creating opportunities for upcoming agripreneurs to establish small-scale industries, agri-startups and agri-related services. This, in turn, leads to rural employment, income generation and overall socio-economic development.

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