

# "NAVIGATING THE INTERSECTION OF AGRIBUSINESS AND AGRIBUSINESS ENTREPRENEURSHIP: PERFORMANCE, CHALLENGES, AND OPPORTUNITIES"

## Abstract

Agripreneurship, the integration of entrepreneurial principles into agriculture, has become a vital strategy to boost the profitability and attractiveness of farming. This study evaluates the performance of agripreneurs in Haryana, India, focusing on various indicators of success including capacity utilization, cost-benefit ratio, hired labor, perceived profitability, labor relationships, extent of diversification, and social impact. Data was collected from 60 agripreneurs across four districts—Bhiwani, Jind, Hisar, and Kurukshetra—using a structured interview schedule. The results reveal that a significant portion of agripreneurs (46.67%) utilized their capacity to a large extent, while 60% perceived their enterprises as profitable. The findings also indicate that 50% of the businesses had a high level of social contribution and most agripreneurs demonstrated medium to high levels of innovativeness. Statistical analysis shows positive significant relationships between various independent variables (such as age, education, income from agribusiness, risk orientation, and experience) and agribusiness performance. The study concludes that agripreneurs exhibit a high degree of capacity utilization and profitability, maintain generally good labor relationships, and contribute significantly to their communities. The data supports the assertion that both personal and external factors play crucial roles in the success of agribusiness ventures.

**Keywords:** Agripreneurship, agricultural performance, capacity utilization, cost-benefit ratio, social impact, innovation, Haryana.

## Introduction

**Agripreneurship**, the fusion of agriculture and entrepreneurship, represents a transformative approach to enhance the profitability and appeal of farming. This concept involves applying entrepreneurial principles to agricultural practices, where farmers evolve into innovative business leaders who leverage their passion and creativity to drive their enterprises forward. According to [1], agripreneurship is characterized by the integration of entrepreneurial thinking into farming activities. Agripreneurs are not just producers but innovators who embrace risk and continuously seek opportunities to improve and expand their operations. As noted by [2], agripreneurship turns agricultural land into profitable agrienterprises by merging agricultural practices with entrepreneurial strategies. This approach not only generates additional wealth within the agricultural sector but also revitalizes rural economies by creating sustainable and commercially viable agricultural businesses.

Recent studies highlight several key trends in agripreneurship. [3] underscore the importance of technology adoption in agripreneurship, where modern tools like precision farming, digital marketplaces, and sustainable practices have emerged as game changers. They emphasize that technology integration allows agripreneurs to reduce costs, improve productivity, and access wider markets, thus transforming traditional agricultural operations into tech-savvy

enterprises. This technological shift is particularly significant in India, where agribusinesses are leveraging mobile-based platforms for supply chain management and marketing.

[4] focus on the role of youth in agripreneurship, highlighting how young agripreneurs are increasingly viewing agriculture as a viable career option, thanks to emerging entrepreneurial opportunities. This trend is especially noticeable in rural regions, where agribusiness incubators and government schemes aimed at fostering innovation are enabling rural youth to start their ventures.

Despite these advancements, gaps remain in understanding how these factors influence agribusiness performance at the local level. [5] identify a critical gap in evaluating the socio-economic impacts of agripreneurship, particularly in less developed regions. They argue that while the agripreneurship model is widely discussed, there is limited empirical data on its actual performance metrics, especially in states like Haryana, which are experiencing an agrarian transformation.

This study addresses this gap by focusing on the performance of agripreneurs in Haryana, India, where the integration of agripreneurship is becoming increasingly significant. By assessing various indicators of agribusiness performance—such as capacity utilization, cost-benefit ratio, hired labor, perceived profitability, labor relationships, and extent of diversification—this research aims to provide insights into the effectiveness of agripreneurship in driving economic growth and development in the agricultural sector. The findings will contribute to understanding how agripreneurs are shaping the future of agriculture and identifying the factors that influence their success.

## Methodology

The study was conducted in the state of Haryana, India, focusing on evaluating the performance and impact of agribusiness activities on agripreneurs. To achieve this, a purposive sampling approach was employed to select four districts within Haryana where Agri Business Centres (ABCs) were established: Bhiwani, Jind, Hisar, and Kurukshetra. These districts were chosen due to their active agribusiness activities and the presence of registered agripreneurs.

From each district, an equal number of agripreneurs were randomly selected from the list of registered individuals at the Agri Business Centres. Specifically, 15 agripreneurs from each district were chosen, resulting in a total sample size of 60 agripreneurs. This sample was deemed representative for assessing the performance and impact of agribusiness initiatives within the region.

Data collection was conducted through a well-structured and pre-tested interview schedule, which facilitated in-depth interactions with the agripreneurs. The interview schedule included questions designed to gather information on various performance indicators of their agribusiness enterprises. These indicators included:

1. **Capacity Utilization:** it refers to the extent to which a business or enterprise effectively uses its available production capacity. In the context of agripreneurship, it is the measure of how well agripreneurs maximize their resources—such as land, labor, equipment, and time—to produce goods or services. High capacity utilization indicates that an agribusiness is making the most out of its resources, leading to higher efficiency

and profitability.

2. **Cost-Benefit Analysis:** it is a systematic approach used to evaluate the economic advantages (benefits) and disadvantages (costs) associated with a project, decision, or business. In agripreneurship, CBA helps determine the financial viability of agricultural enterprises by comparing the resources invested against the returns generated.
3. **Hired Labor:** Hired labor refers to individuals employed by agripreneurs or farmers on a temporary or permanent basis to perform specific tasks, ranging from planting and harvesting crops to managing livestock or operating machinery. In the context of agripreneurship, hired labor plays a crucial role in managing large-scale operations, enhancing productivity, and enabling agribusinesses to scale up efficiently.
4. **Perceived Profitability:** It refers to how agripreneurs subjectively assess the financial success and viability of their businesses, often based on personal observations, experience, and financial outcomes, rather than solely on hard data or formal financial statements. In agripreneurship, perceived profitability plays a crucial role in decision-making and long-term planning as it influences investment, expansion, and risk-taking behavior.
5. **Labor Relationship:** It refers to the dynamics between agripreneurs and the workers they employ, including how they manage, motivate, and interact with their labor force. A positive labor relationship is essential for the smooth functioning of agribusinesses, as it influences productivity, job satisfaction, and long-term retention of workers.
6. **Extent of Diversification:** Diversification in agribusiness refers to the practice of engaging in multiple agricultural or related activities, which can help in spreading risks and improving income stability. The extent to which agripreneurs diversify their operations often reflects their ability to manage market fluctuations, environmental challenges, and competition.
7. **Social Contribution:** Social contribution refers to the actions and efforts individuals or groups make to benefit society and improve the well-being of communities.
8. **Innovativeness:** It refers to the ability to generate and implement new ideas, products, processes, or services that create value and meet the needs of society. It involves creativity, problem-solving, and a willingness to take risks.

The collected data were analyzed using statistical methods to provide insights into the performance and impact of agribusiness on the agripreneurs. Performance metrics were assessed based on indicators such as capacity utilization, cost-benefit ratio, and perceived profitability. Additionally, social contribution and innovativeness were evaluated to understand the broader impact of agribusiness activities.

Performance was defined as the quality and quantity of outcomes achieved, aligning with [6] perspective. [7] And [8] emphasized the role of environmental variables, ability, and motivation in influencing performance. [6] Inventory was used to assess performance and impact, focusing on indicators such as labor utilization and business diversification.

The methodology aimed to provide a comprehensive evaluation of agripreneurs' performance, taking into account both financial and non-financial aspects, to contribute valuable insights into the effectiveness of agripreneurship in enhancing agricultural profitability and sustainability.

## Results and Discussion

### Performance of Agripreneurs in Agri Based Enterprises

#### Profile of Agripreneurs in Relation to Capacity Utilization Indicator Performance of Agri Enterprise

It is observed from Table 1 that capacity utilization among agripreneurs varied across the different Agri Business Centres (ABCs). The majority of agripreneurs (46.67%) reported utilizing their capacity to a large extent (76–100%). A substantial proportion (26.67%) utilized their capacity between 51–75%. In contrast, 15.00% of agripreneurs utilized only 0–25% of their capacity, while 11.66% utilized 26–50%. This indicates a general trend towards effective use of available capacity, with notable variation in the extent to which agripreneurs fully exploit their potential.

These findings are consistent with previous research indicating high capacity utilization among successful agribusinesses [9]. The variability observed aligns with [7] insights on diverse resource use in entrepreneurship. The underutilization by some agripreneurs highlights a need for targeted support, echoing [10] recommendations for improving capacity use. Overall, while many agripreneurs are optimizing their capacity, there remains considerable opportunity for enhancing performance among those with lower utilization rates.

**Table 1: Profile of Agripreneurs in Relation to Capacity Utilization Indicator Performance of Agri Enterprise**

Sr.N	AgribusinessCenters					
	o. Capacity Utilization	Agri Clinic &AgriBusine ssCenter	A2Z AgriBusines sCenter	AgriBusinessIn cubation Center	AgriClinicandAgriBusi nessCenter	Total
		Bhiwani n=15 F (%)	Jind n=15 F (%)	Hisar n=15 F (%)	Kurukshetra n=15 F (%)	N=60 F (%)
1.	0–25%	03(20.0)	01(6.67)	03(20.00)	02(13.33)	09(15.00)
2.	26–50%	02(13.3)	01(6.67)	02(13.33)	02(13.33)	07(11.66)
3.	51–75%	03(20.0)	05(33.33)	04(26.67)	04(26.67)	16(26.67)
4.	76–100%	07(46.6)	08(53.33)	06(40.00)	07(46.67)	28(46.67)

*Figures in parentheses indicate percentages*

**Profile of Agripreneurs in Relation to Hired Labor Indicator of Agri Business Performance**

Table 2 reveals the distribution of labor man-days generated by agripreneurs. The majority (60.00%) of agripreneurs generated between 366 and 732 labor man-days. In contrast, 23.33% generated fewer than 180 labor man-days, and 16.67% produced between 180 and 365 labor man-days. This distribution highlights that a significant portion of agripreneurs are achieving higher labor engagement, although there is a notable range in labor input across the sample.

The labor man-days distribution is consistent with [9] findings, which indicated that effective agribusiness operations typically generate substantial labor inputs. Sharma [7] also noted that the level of labor utilization reflects entrepreneurial performance and operational scale. The variation seen in this study underscores the diversity in agribusiness practices, with some agripreneurs achieving high labor productivity while others fall short. This disparity suggests a need for further support and training to optimize labor use, in line with [10] recommendations for enhancing agribusiness efficiency.

**Table 2: Profile of Agripreneurs in Relation to Hired Labor Indicator of Agri Business Performance**

Sr.	Agribusiness Centers
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No.	Hired Labour	Agri Clinic & Agri Business Center	A2Z Agri Business Center	Agri Business Incubation Center	Agri Clinic and Agri Business Center	Total
		Bhiwani n=15 F (%)	Jind n=15 F (%)	Hisar n=15 F (%)	Kurukshetra n=15 F (%)	N=60 F (%)
1.	<180 man days	04(26.67)	03(20.00)	06(40.00)	01(6.67)	14(23.33)
2.	180–365 man days	03(20.00)	02(13.33)	02(13.33)	03(20.00)	10(16.67)
3.	366–732 man days	08(53.33)	10(66.67)	07(46.67)	11(73.33)	36(60.00)

Figures in parentheses indicate percentages

### Profile of Agripreneurs in Relation to Perceived Profitability Indicator of Agribusiness Performance

Table 3 presents the profile of agripreneurs in relation to their perceived profitability of agribusiness performance. It shows that (60.00%) of agribusiness operators perceive their enterprises as profitable. (16.67%) view their enterprises as highly profitable, while (8.33%) report experiencing significant losses. Additionally, (6.67%) consider their enterprises somewhat profitable. These results indicate a predominantly positive perception of profitability among agribusiness operators. This aligns with findings by [11], who noted that advancements in technology and market access generally enhance profitability. The (16.67%) of operators who perceive their enterprises as highly profitable reflect the successful outcomes reported by [12] due to innovative practices. Conversely, the (8.33%) facing significant losses and the (6.67%) with somewhat profitable enterprises highlight challenges similar to those identified by [13], such as market fluctuations and climatic impacts. Overall, while many agribusinesses report profitability, the variability in profitability perceptions underscores the need for further research into the factors influencing these outcomes.

**Table 3: Profile of Agripreneurs in Relation to Perceived Profitability Indicator of Agribusiness Performance**

Sr. No.	Perceived profitability	Agribusiness Centers					Total
		Agri Clinic & Agri Business Center	A2Z Agri Business Center	Agri Business Incubation Center	Agri Clinic and Agri Business Center		
		Bhiwani n=15 F (%)	Jind n=15 F (%)	Hisar n=15 F (%)	Kurukshetra n=15 F (%)	N=60 F (%)	
1.	Verymuchonloss	01(6.67)	01(6.67)	02(13.34)	01(6.67)	05(8.33)	
2.	Somewhatonloss	02(13.33)	01(6.67)	—	02(13.33)	05(8.33)	
3.	Somewhatprofitable	01(6.67)	02(13.33)	01(6.67)	—	04(6.67)	
4.	Profitable	09(60.00)	08(53.33)	11(73.33)	08(53.33)	36(60.00)	
5.	Highlyprofitable	02(13.33)	03(20.00)	01(6.67)	04(26.67)	10(16.67)	

Figures in parentheses indicate percentages

### Profile of Agripreneurs in Relation to Labor Relationship Indicator of Agribusiness Performance

The data reveals that less than half of agripreneurs (43.34%) reported having a smooth relationship with their labor force. Additionally, 33.33% indicated somewhat smooth relations, while 10.00% experienced very smooth but slightly strained interactions. A smaller proportion (3.33%) reported highly strained labor relations. These findings align with existing literature on labor dynamics in agribusiness, where labor-management relationships are influenced by various factors such as labor shortages, economic pressures, and communication barriers [14]. The relatively high percentage of agripreneurs facing challenges in labor relations underscores the need for improved management practices and support systems in the agricultural sector. Studies have suggested that enhancing communication channels and providing better labor incentives may help mitigate these issues [15].

**Table 4: Profile of Agripreneurs in Relation to Labor Relationship Indicator of Agribusiness Performance**

Sr.		Agribusiness Centers				
No.	Labor relationship	Agri Clinic & Agri Business Center	A2Z Agri Business Center	Agri Business Incubation Center	Agri Clinic and Agri Business Center	Total
		Bhiwani n=15 F (%)	Jind n=15 F (%)	Hisar n=15 F (%)	Kurukshetra n=15 F (%)	N=60 F (%)
1.	Very much strained	01(6.67)	—	01(6.67)	—	02(3.33)
2.	Lessstrained	02(13.33)	—	02(13.33)	02(13.33)	06(10.00)
3.	Somewhat smooth	05(33.33)	03(20.00)	05(33.33)	07(46.67)	20(33.33)
4.	Smooth	04(26.67)	10(66.67)	07(46.67)	05(33.33)	26(43.34)
5.	Very much smooth	03(20.00)	02(13.33)	—	01(6.67)	06(10.00)

Figures in parentheses indicate percentages

### Profile of Agripreneurs in Relation to Extent of Diversification Indicator of Agribusiness Performance

The analysis revealed that less than half of agribusiness operators (43.34%) exhibited a medium level of diversification in their activities. Furthermore, 33.33% of agripreneurs demonstrated a low level of diversification, while 13.33% engaged in highly diversified operations. Notably, 10.00% of agripreneurs reported no diversification in their business ventures. These findings reflect the varied approaches to diversification within the agribusiness sector, which is consistent with existing literature that highlights diversification as a critical strategy for managing risks and enhancing profitability in agricultural enterprises [16]. According to previous studies, diversification allows agripreneurs to mitigate the impact of market volatility and environmental uncertainties by spreading risk across different products and services [12].

**Table 5: Profile of Agripreneurs in Relation to Extent of Diversification Indicator of Agribusiness Performance**

Sr.		Agribusiness Centers
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No.	Extent of diversification	Agri Clinic & Agri Business Center	A2Z Agri Business Center	Agri Business Incubation Center	Agri Clinic and Agri Business Center	Total
		Bhiwani n=15 F (%)	Jind n=15 F (%)	Hisar n=15 F (%)	Kurukshetra n=15 F (%)	N=60 F (%)
1.	Nil	01(6.67)	-	02(13.33)	03(20.00)	06(10.00)
2.	Low	05(33.33)	06(40.00)	04(26.67)	05(33.33)	20(33.33)
3.	Medium	07(46.67)	05(33.33)	08(53.33)	06(40.00)	26(43.34)
4.	High	02(13.33)	04(26.67)	01(6.67)	01(6.67)	08(13.33)

Figures in parentheses indicate percentages

### Profile of Agripreneurs in Relation to Cost Benefit Ratio Indicator of Agribusiness Performance

Table 6 illustrates that 26.67% of agripreneurs experienced a low to moderate cost-benefit ratio, while 18.33% reported a very low cost-benefit ratio. Additionally, 15.00% of agripreneurs achieved a high cost-benefit ratio, with 13.33% reaching a very high ratio. These variations in cost-benefit performance align with prior studies that emphasize the significance of efficient resource allocation and cost management in agribusiness profitability [18]. Agripreneurs with lower cost-benefit ratios may face challenges such as higher input costs or inefficiencies in production processes, while those with higher ratios may benefit from economies of scale, technological adoption, or superior market access [19].

**Table 6: Profile of Agripreneurs in Relation to Cost Benefit Ratio Indicator of Agribusiness Performance**

Sr. No.	Cost benefit ratio	Agribusiness Centers					Total
		Agri Clinic & Agri Business Center	A2Z Agri Business Center	Agri Business Incubation Center	Agri Clinic and Agri Business Center		
		Bhiwani n=15 F (%)	Jind n=15 F (%)	Hisar n=15 F (%)	Kurukshetra n=15 F (%)	N=60 F (%)	
1.	Verylow(0.90–1.40)	03(20.00)	01(6.66)	05(33.34)	02(13.33)	11(18.33)	
2.	Low(1.41–1.90)	05(33.33)	04(26.67)	03(20.00)	04(26.67)	16(26.67)	
3.	Moderate(1.91–2.40)	04(26.67)	06(40.00)	03(20.00)	03(20.00)	16(26.67)	
4.	High (2.41–2.90)	02(13.33)	01(6.67)	02(13.33)	04(26.67)	09(15.00)	
5.	Veryhigh(2.90–3.50)	01(6.67)	03(20.00)	02(13.33)	02(13.33)	08(13.33)	

Figures in parentheses indicate percentages

### Social Impact of Agribusiness on Agrepreneurs Social Contribution from Enterprise

**Table 7** reveals that 50% of agribusinesses demonstrated a high level of social contribution, followed by 38.33% with a medium level, and 11.67% reporting a low level of social contribution. This distribution reflects the growing recognition of the role agribusinesses play in contributing to societal well-being, including employment generation, community development, and sustainable practices. Previous studies have highlighted that socially responsible business practices can enhance the long-term viability of agribusinesses by fostering stronger community relations and improving public perception [20]. Social contributions, especially at high levels, are often linked to businesses that prioritize corporate social responsibility (CSR) and actively engage in community-oriented initiatives [15]. Further research could explore the specific types of social contributions made by agribusinesses and the factors driving higher levels of engagement in social initiatives.

The results indicate that the majority of respondents (58.33%) exhibited a medium level of innovativeness, with 31.67% of agripreneurs demonstrating a high level of innovation, and 10.00% showing a low level. This distribution underscores the importance of innovation in agribusiness, where medium to high levels of creativity and adaptation are crucial for competitiveness and sustainability. The present findings are in turned with [21] also revealed that nearly fifty per cent of the respondents were regularly participated in social and cultural programmes (46.67%) followed by construction of temple (32.50%) and planting of trees (27.50%), while more than 90 per cent of the respondents have never participated in various rural developmental activities like road repairs (93.34%), construction of school. [22] also reported that 59.26 per cent of rural youth had medium level of innovativeness, followed by the remaining with high (24.58%) and low (16.66%) levels of innovativeness.

**Table 7: Social Impact of Agribusiness on Agripreneurs Social Contribution from Enterprise**

Sr. No.	Agribusiness Centers					
	Indicators	AgriClinic & Agri BusinessCenter Bhiwanin= 15 f(%)	A2ZAgri BusinessCenter Jind n=15 f(%)	AgriBusiness IncubationCenter Hisarn =15f(%)	AgriClinicand Agri BusinessCenter Kurukshetran =15 f(%)	Total N=60f(%)
<b>1</b>	<b>SocialContributionfromEnterprise</b>					
	Lowlevel	01(6.67)	03(20.00)	02(13.33)	01(6.67)	07(11.67)
	Mediumlevel	05(33.33)	07(46.67)	05(33.33)	06(40.00)	23(38.33)
	Highlevel	09(60.00)	05(33.33)	08(53.34)	08(53.33)	30(50.00)
<b>2</b>	<b>Innovativeness</b>					
	Low(9–21)	01(6.67)	02(13.33)	01(6.67)	02(13.33)	06(10.00)
	Medium(22–34)	08(53.33)	08(53.34)	10(66.66)	09(60.00)	35(58.33)
	High(35–45)	06(40.00)	05(33.33)	04(26.67)	04(26.67)	19(31.67)

*Figures in parentheses indicate percentages*

### Relationship between Independent Variable and Performance of Agripreneurs

The analysis of the relationship between independent variables and agribusiness performance revealed that factors such as age, family education status, social participation, family

occupation, and income from agriculture, income from agribusiness, landholding, risk orientation, change proneness, and experience in agribusiness had a positive and significant association with most performance indicators of agribusiness enterprises. Singh [10] found that the performance of agribusiness is significantly influenced by the personal characteristics of an agribusiness entrepreneur. These entrepreneurs possess essential traits including tenacity, perseverance, ambition, flexibility, analytical problem-solving abilities, practicality, and a strong focus on achieving goals. They are characterized by their capacity to identify unmet needs and take calculated risks to address them. Furthermore, key attributes include skillful productivity management, a tendency to explore emerging markets, the ability for self-evaluation, effective leadership, a market-driven mindset, and an penchant for innovative thinking. [22] also showed that most of the independent variables had positive significant relationship with the performance of youth-led agribusinesses at Farm Africa.

UNDER PEER REVIEW

Sr.no.	Independentvariable	Capacity building	Costbenefit	Hired labour	Perceived profitability	Labourrelationship	Extent of diversification	Social contribution	Innovativeness
1.	Age	0.328*	0.422**	0.389**	0.388**	0.371**	0.341**	0.248	0.101
2.	Gender	0.174	0.264*	0.166*	0.182*	0.154*	0.296*	0.175	0.138
3.	Education	0.235	0.343**	0.275*	0.254*	0.357**	0.394**	0.134	0.371**
4.	Familyeducationstatus	0.489**	0.502**	0.400**	0.592**	0.481**	0.500**	0.549**	0.120
5.	Socialparticipation	0.911**	0.837**	0.769**	0.831**	0.807**	0.837**	0.672**	0.710**
6.	Familyoccupation	0.649**	0.624**	0.485**	0.682**	0.467**	0.547**	0.709**	0.475**
7.	Incomefromagriculture	0.340**	0.454**	0.254*	0.311*	0.286*	0.357**	0.286*	0.481**
8.	Incomefromagribusiness	0.423**	0.550**	0.275*	0.298*	0.343**	0.394**	0.298*	0.500**
9.	Milchanimal	0.007	0.070	0.049	0.010	0.018	0.017	0.148	0.155
10.	Landholding	0.339**	0.427**	0.371**	0.375**	0.386**	0.406**	0.361**	0.038
11.	Informationsourceutilization	0.123	0.047	0.089	0.077	0.111	0.075	0.059	0.339**
12.	Massmediasources	0.166	0.232*	0.144	0.178*	0.234*	0.204*	0.313*	0.427**
13.	Riskorientation	0.522**	0.554**	0.384**	0.597**	0.450**	0.517**	0.499**	0.649**
14.	Changeproneness	0.418*	0.470**	0.351**	0.412**	0.503**	0.543**	0.378**	0.418**
15.	Experienceinagribusiness	0.320**	0.380**	0.405**	0.428**	0.358**	0.399**	0.410**	0.403**

\*-Significantat0.5level

\*\*- Significantat0.1level

Table 8 : Relationship between Independent Variable and Performance of Agpreneurs

## CONCLUSION

Based on the analysis and interpretation, it can be concluded that the majority of agripreneurs were between the ages of 30–35 years, with a predominant representation of males. Approximately 75.00% of the respondents belonged to the general category, and 63.33% were married. Most respondents had completed senior secondary education, followed by those who had graduated, while 56.67% had a family with a medium educational status. Additionally, 51.67% of respondents were part of joint families with large family sizes, and 55.00% reported participation in at least one organization.

Most agripreneurs were found to utilize their operational capacity significantly, maintaining low to moderate cost-benefit ratios while generating between 366–732 labor mandays. These agripreneurs perceived their enterprises as highly profitable, enjoyed smooth labor relations, and displayed a medium level of diversification. Notably, 26.67% of agripreneurs operated within the low to moderate cost-benefit ratio range. Furthermore, half of the agribusinesses demonstrated a high level of social contribution, followed by 38.33% at a medium level and 11.67% at a low level. In terms of innovation, more than half of the respondents exhibited medium levels of innovativeness, while 31.67% displayed high levels and 10.00% showed low levels of innovation.

These findings underscore the importance of personal, family, and operational factors in shaping the performance and social impact of agribusinesses.

### Suggestions for Future Research:

- 1) **Impact of Technology Adoption:** Future studies should explore how emerging technologies, such as precision farming, digital marketplaces, and automation, influence the productivity and profitability of agripreneurs. Understanding the barriers to technology adoption and its role in innovation could help improve agripreneurial efficiency and market competitiveness.
- 2) **Role of Women and Youth in Agripreneurship:** Since the current analysis indicates a male-dominated sector, research could focus on how women and younger individuals can be more effectively integrated into agripreneurship. Gender-sensitive studies and youth-focused policies could provide insights into promoting inclusivity in the sector.
- 3) **Socio-Economic Impact Assessment:** Future research could examine the broader socio-economic impact of agripreneurship, particularly its role in reducing rural poverty, increasing food security, and creating jobs. This would provide a clearer picture of agripreneurship's contribution to rural development.
- 4) **Sustainability and Environmental Impact:** Research on how agripreneurs can adopt sustainable agricultural practices is essential, especially in the context of climate change. Future studies could investigate the long-term environmental impact of agribusiness models and their role in promoting green entrepreneurship.

### Recommendations/Policy Making:

- 1) **Entrepreneurial Education and Training:** Policies should focus on providing targeted educational programs for agripreneurs. This could include vocational training in entrepreneurship, financial management, and technology use, helping them to optimize

operations and profitability.

- 2) **Incentives for Diversification and Innovation:** To encourage a higher level of innovation and diversification, governments could introduce incentives, such as grants, subsidies, or tax breaks, aimed at agribusinesses that invest in new product lines, sustainable practices, or digital tools.
- 3) **Support for Organizational Participation:** Given the findings that over half of the respondents participated in at least one organization, policy interventions should support the creation of agribusiness cooperatives and networks. These can provide critical resources, knowledge-sharing platforms, and market access opportunities.
- 4) **Access to Finance and Credit:** Enhancing access to credit and financial services for agripreneurs, particularly for those from marginalized communities, can empower them to scale their businesses. Policymakers should focus on creating inclusive financial products tailored to the needs of small and medium-sized agribusinesses.
- 5) **Promoting Family Involvement and Support:** Since joint families played a key role in the success of many agripreneurs, policy frameworks could explore how family businesses can be supported through generational transfer programs, family business advisories, and mentorship schemes aimed at agripreneurship.

#### **Author's contribution's**

This work was carried out in collaboration among all authors. Author Jyoti designed the study, performed the statistical analysis, wrote the protocol, and drafted the initial manuscript. Author Seema Rani provided advisory support and guidance throughout the study. Authors Khushbu and Anju managed the literature searches. All authors read and approved the final manuscript.

#### **DISCLAIMER (ARTIFICIAL INTELLIGENCE)**

Authors hereby declare that NO generative AI technologies such as Large Language Models (ChatGPT, COPILOT, etc) and text-to-image generators have been used during writing or editing of this manuscript.

#### **CONSENT**

Informed consent was obtained from all individual participants included in the study. Participants were provided with detailed information about the study's purpose, procedures, and potential risks before consenting to participate. Their participation was voluntary, and they were assured of confidentiality and the right to withdraw from the study at any time without consequence. The study was conducted in accordance with ethical guidelines and received approval from the relevant institutional review board.

#### **COMPETING INTERESTS**

Authors have declared that no competing interests exist.

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