



Alternative Livelihood Pathways through Mushroom Farming in Odisha

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Mushroom cultivation has emerged as a viable enterprise for enhancing rural livelihoods in Odisha, where agriculture is dominated by small and marginal farmers. Factors such as declining landholdings, rising input costs, and uncertainty in traditional farming have encouraged the adoption of low-cost alternative enterprises. Mushroom farming requires minimal land and investment, offers quick returns, and efficiently utilizes agricultural residues. Institutional support from OUAT, Krishi Vigyan Kendras, and line departments has been instrumental in promoting mushroom-based enterprises through training and advisory services. Entrepreneurial behaviour—comprising innovativeness, risk-bearing capacity, decision-making ability, achievement motivation, and information orientation—plays a key role in enterprise success. Women and Self-Help Groups have emerged as important contributors to income generation and social empowerment. Digital tools further strengthen information access and market linkage. Despite marketing and infrastructural constraints, mushroom cultivation is gradually evolving into a promising agribusiness in Odisha.

Keywords: Mushroom cultivation, Entrepreneurial behaviour, Rural entrepreneurship, Extension support, Women empowerment, Agribusiness development, Digital extension

Introduction

In India, mushroom farming has become a viable enterprise for improving rural incomes, particularly in states like Odisha where agriculture is dominated by small and marginal farmers (Nagar *et al.*, 2023). Declining landholdings, rising input costs, and the uncertainty of traditional farming have encouraged rural households to seek low-cost and sustainable alternative livelihoods. Mushroom cultivation fits well into this context due to its short production cycle, low land requirement, and effective utilization of agricultural residues such as paddy straw (Singh *et al.*, 2018). Beyond income generation, mushroom farming has been recognized as an effective tool for promoting entrepreneurship among rural youth (Kumar & Sharma, 2019).

The active involvement of Odisha University of Agriculture and Technology (OUAT), Krishi Vigyan Kendras (KVKs), and line departments has significantly contributed to the promotion of mushroom-based enterprises in the state (Anonymous, 2005). Training programmes, demonstrations, and continuous advisory services have enabled first-generation entrepreneurs to adopt improved practices and access local markets. Women mushroom growers, in particular, have emerged as important change agents by balancing household responsibilities while contributing to family income and social empowerment (Meena *et al.*, 2020).

Mushrooms: A Perfect Enterprise for Odisha

The favourable agroclimatic conditions of Odisha, the easy availability of paddy straw, and the abundance of rural labour make mushroom cultivation an ideal business venture in the state (Singh *et al.*, 2018). In contrast to traditional crops, mushroom farming requires less acreage, low initial investment, quick returns, and supports year-round production, making it highly suitable for resource-poor farmers (Kumar & Sharma, 2019).

Because of these advantages, small and marginal farmers, rural women, and youth have increasingly adopted mushroom cultivation as a profitable micro-enterprise for income generation and livelihood diversification (Nagar *et al.*, 2023).

Key advantages include:

- Less acreage
- Low initial investment
- Quick profits
- Year-round production

Entrepreneurial Behaviour: More Than Just Cultivation

Entrepreneurial behaviour refers to an individual's ability to identify opportunities, take calculated risks, introduce innovations, plan systematically, and efficiently utilize available resources (Reddy & Reddy, 2017). In the context of Odisha, mushroom entrepreneurs who have achieved sustained success exhibit several distinctive behavioural characteristics that support enterprise growth and sustainability (Nagar *et al.*, 2023).

Key entrepreneurial characteristics observed among successful mushroom entrepreneurs include:

- Innovativeness: Experimentation with different mushroom varieties such as oyster, milky, and button mushrooms to meet market demand (Singh & Gupta, 2021).
- Risk-bearing capacity: Shifting from traditional crop cultivation to enterprise-oriented mushroom production despite uncertainties (Rao *et al.*, 2019).
- Decision-making ability: Making informed decisions related to market selection, pricing, and cost management (Reddy & Reddy, 2017).
- Achievement motivation: A strong desire to increase income and gain social recognition within the community (Nagar *et al.*, 2023).
- Information orientation: Actively seeking technical and market-related information through training programmes, mobile-based advisory services, and social media platforms (Patel *et al.*, 2022).

These entrepreneurial attributes clearly differentiate commercially successful mushroom entrepreneurs from subsistence-level growers, highlighting the importance of behavioural factors in agribusiness development (Singh & Gupta, 2021).

Role of Training and Extension Support

Institutional support from Krishi Vigyan Kendras (KVKs), Odisha University of Agriculture and Technology (OUAT), non-government organizations, and government line departments has played a crucial role in nurturing entrepreneurial behaviour among mushroom growers in Odisha (Singh & Gupta, 2021). Through continuous capacity-building programmes, method demonstrations, training, and exposure visits, these agencies enhance the technical competence, confidence, and risk-taking ability of growers (Swanson & Rajalahti, 2019).

A large number of mushroom entrepreneurs in the state acknowledge that their enterprise development was strongly supported by:

- Skill-oriented and practical training programmes
- Continuous technical backstopping and advisory services
- Easy access to essential inputs, particularly quality spawn
- Supportive linkages with markets and Self-Help Groups (SHGs)

In this manner, agricultural extension services effectively bridge the gap between scientific knowledge and enterprise-level application, leading to sustainable entrepreneurship development (Singh & Gupta, 2021).

Women Entrepreneurs: Catalysts of Change

The increasing participation of women in mushroom cultivation represents a significant development in Odisha. Mushroom farming is particularly suitable for women as it can be managed alongside household responsibilities and involves comparatively less strenuous labour (Meena *et al.*, 2020). Many women-led Self-Help Groups (SHGs) have successfully adopted mushroom cultivation, resulting in enhanced family income, greater involvement in household decision-making, and improved social status (Kumar & Sharma, 2019). For rural women, mushroom cultivation has emerged not merely as an income-generating activity, but as a pathway to financial independence, confidence building, and social empowerment (Meena *et al.*, 2020).

Digital Advancement: Entrepreneurship in the Age of Smartphones

The growing availability of smartphones has significantly transformed the way mushroom entrepreneurs access information, technology, and markets. Growers are increasingly using:

- WhatsApp groups to share experiences and solve production-related problems
 - YouTube videos to learn improved cultivation and post-harvest practices
 - Digital marketplaces and social media platforms to sell fresh and value-added mushrooms
- These digital tools have strengthened information-seeking behaviour, innovation, and market awareness, which are essential attributes of successful agripreneurship (Patel *et al.*, 2022).

Constraints in Mushroom Enterprise Development

Despite its economic potential, mushroom cultivation in Odisha faces several operational challenges such as:

- Poorly developed and unorganized marketing channels
- Frequent price fluctuations
- Inadequate cold storage and processing facilities
- Limited access to institutional credit

However, entrepreneurs possessing strong planning ability, risk orientation, and networking skills are better equipped to overcome these constraints and sustain their enterprises (Nagar *et al.*, 2023).

The Way Forward: Transitioning from Cultivation to Agribusiness

Mushroom farming in Odisha is gradually evolving from a supplementary livelihood activity into a promising agribusiness venture. With supportive policies, promotion of value addition, branding initiatives, and strengthened market linkages, mushroom growers can successfully transition into commercial agripreneurs (Singh *et al.*, 2018). Continuous capacity building, digital extension services, and institutional support will be critical for strengthening entrepreneurial behaviour and sustaining this transformation.

Conclusion

The experiences of mushroom entrepreneurs in Odisha demonstrate how small-scale enterprises can generate substantial livelihood opportunities. The transition from simple production units to viable agribusinesses highlights the importance of entrepreneurial behaviour, extension support, and innovation in rural development. As more farmers, women, and youth adopt mushroom cultivation, the enterprise contributes not only to nutritional security but also to the creation of a self-reliant rural economy in Odisha (Nagar *et al.*, 2023).

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