Turning Food Challenges into Opportunities: Rethinking the Role of Food Entrepreneurship

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As economies struggle to create jobs for a growing, highly qualified young population, the traditional idea of finding a job is no longer sufficient. Graduates, despite their qualifications and knowledge, encounter limited opportunities to translate that knowledge into sustainable livelihoods when they enter the workforce. At the same time, agricultural economies have plenty of underutilized resources: crops are often sold as raw materials, nutritious indigenous foods remain underdeveloped commercial products, and potentially valuable foodstuffs are wasted. These problems are frequently posed in isolation, such as issues of unemployment, food security, rural poverty, agricultural production, or economic growth; but they are deeply interconnected.

Food entrepreneurship as an economic and social opportunity

Entrepreneurship is a process of perceiving and recognizing opportunities, responding to unmet needs and transforming available resources into value. This view is especially important in emerging markets where potential opportunities and problems go hand in hand. Lack of formal employment does not equal lack of opportunities for entrepreneurship. For young people,

PAK. J. FOOD SCI., 30(3): 01-11
DOI: https://doi.org/10.65749/pjfs.2026.30.3.0015
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entrepreneurship may offer an alternative to traditional education, since it allows them to apply acquired knowledge not only to compete for a job but also to create new opportunities for others.

In the food sector, this aspect is particularly relevant because food links agriculture and health, nutrition, employment, industries, and consumption. Therefore, food entrepreneurship should not be understood only as the emergence of another food enterprise; it can also become a pathway to turn underused resources and persistent food-system challenges into productive economic opportunities. Undercatered consumer demands, agricultural produce, local knowledge, technological innovations, and emerging markets are key factors that can be combined to create new business ideas. The entrepreneurial mindset seeks to integrate these opportunities into an economically and socially viable business model.

This view also offers a more constructive way of thinking about brain drain. Talented graduates are more likely to seek alternative opportunities when they cannot find meaningful ways to apply their skills at home. Therefore, the best way to retain them is not only to encourage young people to stay in the country but also to help create the conditions in which they can practice their profession. Food science, nutrition, agriculture, technology, and business graduates can play a significant role by developing products, adding value to goods, engaging in food processing and nutrition, and addressing emerging consumer needs.

When this kind of entrepreneurial thinking is applied to the food system, the scope of possible impact expands further. Food is a complex system: it is not simply a good that moves from production to consumption; it represents a chain of production, processing, preservation, distribution, marketing, and consumption. Each of these points has potential for innovation and value creation. This gives rise to food entrepreneurship: the development of products, services,

DOI: https://doi.org/10.65749/pjfs.2026.30.3.0015
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and enterprises that meet food-related needs while creating economic value and potentially broader social and nutritional benefits.

Job Seekers to Job Creators

One of the most immediate arguments for promoting food entrepreneurship is its potential to create new opportunities for a growing young workforce. Global economies are under pressure to generate enough decent jobs for the growing number of educated youths. The COVID-19 pandemic further exacerbated this, creating persistent challenges for businesses and leading to prolonged job displacement, losses, and uncertain recoveries. More recently, geopolitical tensions, trade disruptions, and regional conflicts have posed additional risks to global economic activity. According to the International Labor Organization (ILO), global youth unemployment reached 12.4% in 2025, representing approximately 67 million young people aged 15-24. At the same time, technology is reshaping work. Automation and artificial intelligence open up possibilities for productivity and innovation but are also changing the tasks and skills required across many occupations. While AI can increase productivity and create new opportunities, it may also reduce the number of human workers in some tasks and require people to develop new skills.

These pressures are occurring alongside a major demographic shift. The world's population grew from approximately 4 billion in 1974 to 8 billion in 2022, doubling in less than half a century. A growing population requires not only more food but also more livelihoods, income sources, and opportunities for productive employment. This puts a heavy strain on the job market, especially in developing countries with a huge youth population. Entrepreneurship may then complement traditional employment by creating additional opportunities where knowledge, skills, and local resources can be transformed into economic activity.

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This is where the idea of turning job seekers into job creators becomes significant. The idea is not to promote the idea that every graduate should be a business owner or entrepreneur as a substitute for a healthy formal job market. Economies need skilled personnel, workers, professionals, researchers, and entrepreneurs alike. However, when the labor market cannot absorb everyone entering the workforce, entrepreneurship offers a chance to identify unmet needs and develop solutions. A nutrition graduate, for example, may face limited employment opportunities but could work with a food technologist, farmer, or business mentor to develop affordable, healthy food products. As the venture grows, it may create jobs for production workers, packaging suppliers, transporters, designers, marketers, and distributors.

Food entrepreneurship has distinctive advantages because food businesses connect to almost every stage of the economy. One small processing enterprise can create demand for agricultural produce, increasing the value of local raw materials, providing employment, and connecting with retailers and other service providers. Its economic impact can thus go far beyond the individual entrepreneur. The scale of the challenge also represents a significant opportunity. A large population creates a substantial consumer market with diverse needs for affordable, convenient, nutritious, and culturally preferred food products. Population aging, along with the growing burden of non-communicable diseases, drives demand for products that meet specific nutritional needs. These challenges can become opportunities for responsible food innovation.

Food entrepreneurship, therefore, should be seen as a part of a broader employment strategy. Creating job creators out of job seekers does not necessarily mean asking them to solve structural unemployment by themselves; it means providing an ecosystem where promising ideas can access knowledge, financing, and infrastructure to build sustainable businesses. In the food sector, which brings together agriculture, nutrition, manufacturing, and consumer demand, such an ecosystem can link job creation with broader economic and social value.

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Farms to Diverse and Resilient Food Systems

The potential of food entrepreneurship becomes even more apparent when you view agriculture not only as a source of raw materials but as the start of a much larger value-creation process. It shapes what is grown, how agricultural resources are used, and what ultimately reaches the customer. Agricultural systems that become overly reliant on a few crops lose diversity because they lack crop rotation and suffer from poor soil health. This, in turn, can lead to fewer diverse goods reaching consumers. A reduction in the variety of agricultural goods people eat reduces dietary diversity, which may lower certain nutrients if a particular set of foods is relied on too heavily.

Food entrepreneurship can generate economic incentives to break this pattern. Underutilized cereals, pulses, oilseeds, fruits, and other crops available in each locale can be made into commercially viable products that are convenient to prepare and consume, affordable and attractive to eat. A crop does not have to stay in its natural state as a raw agricultural commodity, but can be transformed into a flour, breakfast food, snack, beverage, ingredient or other end-product. Developing new markets for a variety of crops can both promote crop diversification by farmers and provide more choices for consumers.

This approach may also help in reviving traditional foods and forgotten crops that have gradually disappeared from the marketplace. By linking traditional foods with modern food science, improved processing and packaging technologies, quality control measures, and contemporary consumer trends, entrepreneurship can help localize food knowledge while creating commercial value and maintaining cultural heritage.

The benefits may extend to rural communities, as farmers can be supported not only to produce crops but also to understand opportunities for basic processing and value addition, allowing greater economic value to remain within the community. Similarly, practical training can enable

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rural women and home-based producers to participate in food processing and small businesses. When farmers, households, and entrepreneurs take part in value creation processes, food entrepreneurship can strengthen local livelihoods and create demand for a range of agricultural resources.

The aim, therefore, is not just to boost production but to cultivate a food economy that embraces diversity from the soil to the plate. By creating markets for diverse crops and turning local resources into valuable foods, entrepreneurship can link agricultural diversification with livelihoods, consumer choice, and a more resilient, nutrition-sensitive food system.

Rethinking Education for Food Entrepreneurship

If food entrepreneurship is to become a viable pathway for economic development, how future entrepreneurs are prepared must also change. While scientific knowledge is a vital component provided by universities, a graduate with theoretical understanding of food chemistry, nutrition, or processing in general may not be fully prepared to develop, produce, and sell a food product. Knowledge of formulation, product costing, regulations, packaging design, consumer testing, marketing, and the practical aspects of running a business is essential, and this gap should be addressed.

Universities can move beyond standard classroom experience by providing more opportunities for experiential learning. Short professional diplomas, practical certifications, product-development programs, and entrepreneurship training can complement degree programs and prepare students with skills that respond directly to market needs. Such programs should feature experts who actively work within the food system, entrepreneurs, food manufacturers, farmers, regulatory professionals, marketers and technical experts, so that students learn not only what a process is, but how and why it is applied in practice. By offering internships and

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industry-related projects, universities can also help students gain insight into challenges which cannot be reproduced or fully understood in a class or laboratory setting.

Stronger university–industry partnerships are also needed. Universities offer laboratories, research expertise, and a steady supply of young talent, while industries have access to consumers, the market, production constraints, and commercialization expertise. By combining these resources, scientific findings and student innovations can be evolved into tested products and commercially viable enterprises. Internships, mentoring, and opportunities to develop and test products in industry-supported production facilities can bridge the gap.

The same ecosystem should extend beyond universities. Incubation centers can provide the R&D support, product testing, technical mentoring, business development, and market and finance linkages that enable nascent entrepreneurs to turn ideas into sustainable businesses. Government agencies, non-governmental organizations, and community-based organizations can help build this ecosystem for rural youth, farmers, and women who may not have access to formal entrepreneurial networks, providing them with the needed skills, equipment, and access to markets. Food entrepreneurship will therefore need to evolve from capacity building to actual practice.

Creating an Environment Where Food Ventures Can Grow

Education and training may unlock entrepreneurial ideas, but these do not automatically turn into enterprises without an enabling environment. Food businesses, in particular, must navigate testing, food-safety requirements, licensing, packaging, premises, and access to finance before they even reach market. This can present significant barriers for a young graduate or small producer with limited capital before they recover their outlays. Enabling food entrepreneurship therefore means clearing the hurdles on the path from an idea to a legitimate enterprise, making them simpler and less challenging for ventures with limited scale and resources.

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Regulatory systems should protect consumers without discouraging small and new businesses. Simplified procedures, guidelines, and licensing processes would help young entrepreneurs understand what is expected of them and adhere to food-safety standards from the beginning. The objective should not be to weaken regulation, but to make compliance practical for small businesses which often lack the resources of the bigger corporations.

Access to finance is also a key area. Many promising ideas do not progress because entrepreneurs can develop the product but cannot afford equipment, laboratory testing, packaging, initial production, or market development. Scholarships, competitive innovation grants, student enterprise funds, low-cost loans, and appropriate financing schemes could enable young entrepreneurs to test and refine their ideas before taking bigger commercial risks. Financial support should also reach rural producers, women's enterprises and small farmers aiming at value addition.

Incubation centers can combine many of these elements by providing infrastructure, technical guidance, mentoring, and connections to investors and markets. Instead of using the number of workshops conducted or business plans written as the only metrics, incubation programs should be measured by whether ideas translate into verifiable products, registered companies, sales, and jobs. The government, universities, industry, financial institutions, and development organizations all play a part in this chain.

This ecosystem does not end with producers, institutions, or policymakers. Consumers are on the ultimate demand side. Their willingness to try safe, high-quality, locally produced foods determines whether an innovation will develop beyond the prototype. While a university can train entrepreneurs, a regulator can ease certification, and an incubator can nurture a product to prototype, these alone are insufficient to create enduring businesses without consumer acclimation to unfamiliar local products. This can be fostered by building consumer confidence

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in quality, food safety, and transparency, and by increasing awareness of local products, thus gradually reducing hesitancy. In this sense, consumers are not passive beneficiaries of food innovation, but active participants whose choices drive the market signal that enables a product to evolve, grow and generate further innovations in food systems.

A supportive entrepreneurial environment does not mean guaranteeing that every idea will succeed. It means ensuring promising ideas are not prevented from being tested simply because their founders lack the capital, connections, or familiarity with complex systems to get started. A supportive environment is about giving the next generation of entrepreneurs the knowledge, infrastructure, financing, and navigable regulatory environment they need to get ahead and about making entrepreneurship a realistic business option and not just an aspirational slogan.

AI and the Next Generation of Food Entrepreneurship

Emerging technologies offer another dimension for food entrepreneurship, and artificial intelligence may play a critical role for small and emerging ventures. Entrepreneurs who previously needed multiple specialized resources to explore an idea can now access AI-assisted tools for market research, consumer trend analysis, product positioning, business planning, content development, and preliminary costing. For a small food enterprise with limited human and financial resources, these tools can reduce the time and cost of moving an initial idea toward a more informed business decision.

The potential is even greater when combined with scientific and technical expertise. Food entrepreneurs can use data-based tools to understand consumer preferences, market products to fill a niche, organize information, and support product development decisions. AI may also help small businesses optimize their digital media, reach consumers strategically, and compete in an increasingly technology-savvy market. Nevertheless, convenience should not be mistaken

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for expertise. Food safety, nutritional value, formulation validation, regulatory compliance, and scientific interpretation still require qualified professionals and proper testing.

The real opportunity, therefore, lies not in replacing human knowledge with technology, but in making knowledge more accessible and entrepreneurship more efficient. By combining food science, nutrition, agricultural knowledge and business skills with emerging technologies, young entrepreneurs can experiment faster, make better-informed decisions and pursue opportunities that may previously have been out of reach. AI can become an enabling tool within the food entrepreneurship ecosystem, helping transform ideas into action while keeping scientific responsibility and critical judgment firmly with people.

Conclusion

Food entrepreneurship should no longer be viewed simply as an opportunity for individuals to establish small businesses. Its importance lies in its ability to connect several challenges often addressed independently: reducing youth unemployment, adding value to agriculture, developing the rural economy, diversifying nutrition, and promoting innovation and economic growth. A food entrepreneur can help find markets for farmers' crops, create jobs, revive underused food resources, introduce nutritious products, and expand the value chain. This makes food entrepreneurship a good solution for many countries seeking to generate both economic and social value.

However, in order to realize this potential, much more is needed than promoting a new entrepreneurial spirit among the young. What is needed is an ecosystem in which knowledge can be converted into practice, ideas connected to laboratories and markets, regulations navigated through, and promising ventures provided with finance and mentorship. Universities, industry, farmers, communities, government agencies, financial institutions, incubators, and

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technology suppliers therefore need to move from working in isolation toward greater connectivity within the food system.

The future of food entrepreneurship will be determined by how well we recognize the value already present in our crops, traditional foods, scientific knowledge, youth, and communities. The goal should not simply be to generate more entrepreneurs, but to create an entrepreneurial environment in which people can identify overlooked opportunities and turn them into sustainable solutions. With the right combination of education, innovation, policy, and collaboration, food entrepreneurship can transform the food system from a source of challenges into a platform for opportunity, generating livelihoods, strengthening local economies, and contributing to a more diverse, resilient, and nutrition-sensitive future.

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