*proceedings*

MDPI

*Proceeding Paper*

# Non-Formal, Experiential Learning and Agritourism: The Case of "The Chilli Factor Organic Farm" †

**Georgios Karanagnostis [1,*], Maria Partalidou [2], George Malandrakis [3] and Konstantinos Papaspyropoulos [4]**

[1] Tourism and Local Development Program, Aristotle University of Thessaloniki, 541 24 Thessaloniki, Greece
[2] Department of Agricultural Economics, School of Agriculture, Aristotle University of Thessaloniki, 541 24 Thessaloniki, Greece; parmar@agro.auth.gr
[3] Faculty of Education, School of Primary Education, Aristotle University of Thessaloniki, 541 24 Thessaloniki, Greece; gmalandrakis@eled.auth.gr
[4] Laboratory of Forest Economics, Faculty of Forestry and Natural Environment, Aristotle University of Thessaloniki, P.O. Box 242, 541 24 Thessaloniki, Greece; kodafype@for.auth.gr
* Correspondence: geokaranagnostis@gmail.com
† Presented at the 18th International Conference of the Hellenic Association of Agricultural Economists, Florina, Greece, 10–11 October 2025.

**Abstract**

The aim of this research is to elaborate on the activities of non-formal experiential learning in agritourism developed by an organic family farm in Thessaloniki, Greece. Based on a qualitative approach, in-depth interviews with the owners of the farm and a Business Model Canvas (BMC) approach to this case study, the results indicate that workshops, seminars on nutrition, environmental conservation activities, plant identification, hands-on activities for children and cooking lessons with chefs are some of the non-formal learning tools. The aforementioned activities, on the one hand, raise gate sales for the family and, on the other hand, promote knowledge and awareness towards the contemporary environmental challenges that the rural areas and our food chain are facing. Future development strategies were also identified through the BMC, such as the adoption of digital educational tools, and 'Do It Yourself' kits for growing microgreens at home, while the need for official certification and support of multifunctional farms by the Ministry of Rural Development was also highlighted.

**Keywords:** agritourism; non-formal experiential learning; environmental education; business model canvas

Check for updates

Academic Editor: Katerina Melfou

Published: 12 January 2026

**Copyright:** © 2026 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license.

## 1. Introduction

Agritourism, rooted in the rural landscape and farm pluriactivity, has among other functions an educational role for many age groups with different profiles (Partalidou & De Matteis, 2024) [1]. As Dalampira et al. (2018) argue, agritourism activities—within a multifunctional open farm—offer a great opportunity for non-formal, experiential education [2]. Visitors have the opportunity to be engaged in hands-on experience and learning by doing; hence, gaining an in-depth understanding of nature, farming and rural community and connecting knowledge learned in the classroom to the real world (Petroman et al., 2016; Flogaiti et al., 2021) [3,4]. Some typical activities offered are workshops, seminars, environmental conservation activities, plant identification, cooking lessons, etc. (Ohe, 2009; Canavari et al. 2011) [5,6]. All of the above activities aim at promoting knowledge and awareness towards contemporary environmental challenges (Sin et al., 2018; Lüdtke et al., 2025) [7,8]. Indeed, environmental education leads to awareness, active participation, skills

development and in the long run perhaps even the sustainable use of natural resources (Uralovich et al. 2023; Machado et al. 2022) [9,10].

This paper identifies how agritourism introduces non-formal, experiential learning and explores the difficulties of integrating educational activities into the daily operation of a small farm. Finally, we ponder more generally on the business decisions that ensure a successful and profitable pluriactive farm profile. More specifically, we sought to propose future development strategies and business decisions that will provide the farm with additional income and we also gave policy suggestions for the empowerment of farmers and the promotion of educational farms in Greece.

## 2. Materials and Methods

The empirical analysis (semi-participant observation) took place in a case-study farm located in the peri-urban Thessaloniki, Greece. The farm was identified by a sampling frame from the web platform of the voluntary network "Open Farm" (https://openfarm.gr, accessed on 1 August 2025). The following services offered (filters/criteria) were used to select the case study among the total open farms in Thessaloniki: 'activities for children', 'school visits', 'experiential workshops for adults', 'cooking/tasting workshops' and 'organisation of seminars' around the products produced by the farm. The farm is also part of the global Slow Food Farm network that is working every day towards a better food future.

Data were collected through in-depth interviews (after informed consensus) with the two owners of the family farm, using an interview guide and a Business Model Canvas, which is a strategic development and management tool that gives an overview of the farm business model (Partalidou, et al. 2021; Mustaniroh et al., 2020) [11,12]. The interview lasted about one hour and was audio-recorded for further analysis. Recorded interviews were transcribed verbatim and thematic analysis was employed in addition to the BMC. Personal notes of the researcher after the semi-participant observation were also embedded in the results.

## 3. Results

Agritourism is seen not so much as an alternative source of income but mainly as a means of educating visitors on issues related to food and organic/regenerative farming. Through non-formal experiential learning, the farm helps visitors to understand the essence of clean, ethical food and sustainable agriculture and minimize the gap between rural and urban. **Main farm activities** (Figure 1) are the production of vegetables, edible flowers and microgreens and the operation of educational programmes—workshops (for both schools and chefs). The positive impact of the activities on visitors and on the creation of environmental awareness can be identified in the increased repeatability of visits to the farm and in the change in the mindset of visitors.



**Figure 1.** The Chilli Factor Organic Farm: educational activities and greenhouse products. Source: https://www.facebook.com/photo/?fbid=658686240821538&set=a.653626137994215 (accessed on 5 August 2025); https://www.athensvoice.gr/life/geusi/themata/739517/chilli-factor-aytoi-poy-ftiahnoyn-ta-microgreens-ton-sef/ (accessed on 5 August 2025).

The overall business model of the farm is presented through the nine dimensions of the BMC (Figure 2). The **main partners** are agricultural universities, the American Farm School (primary and secondary school) and the vocational high schools of Thessaloniki, as well as restaurants and chefs of the city. The motivations for collaborations are the acquisition of knowledge but also the possibility of internships and the offer of on-site training programmes.

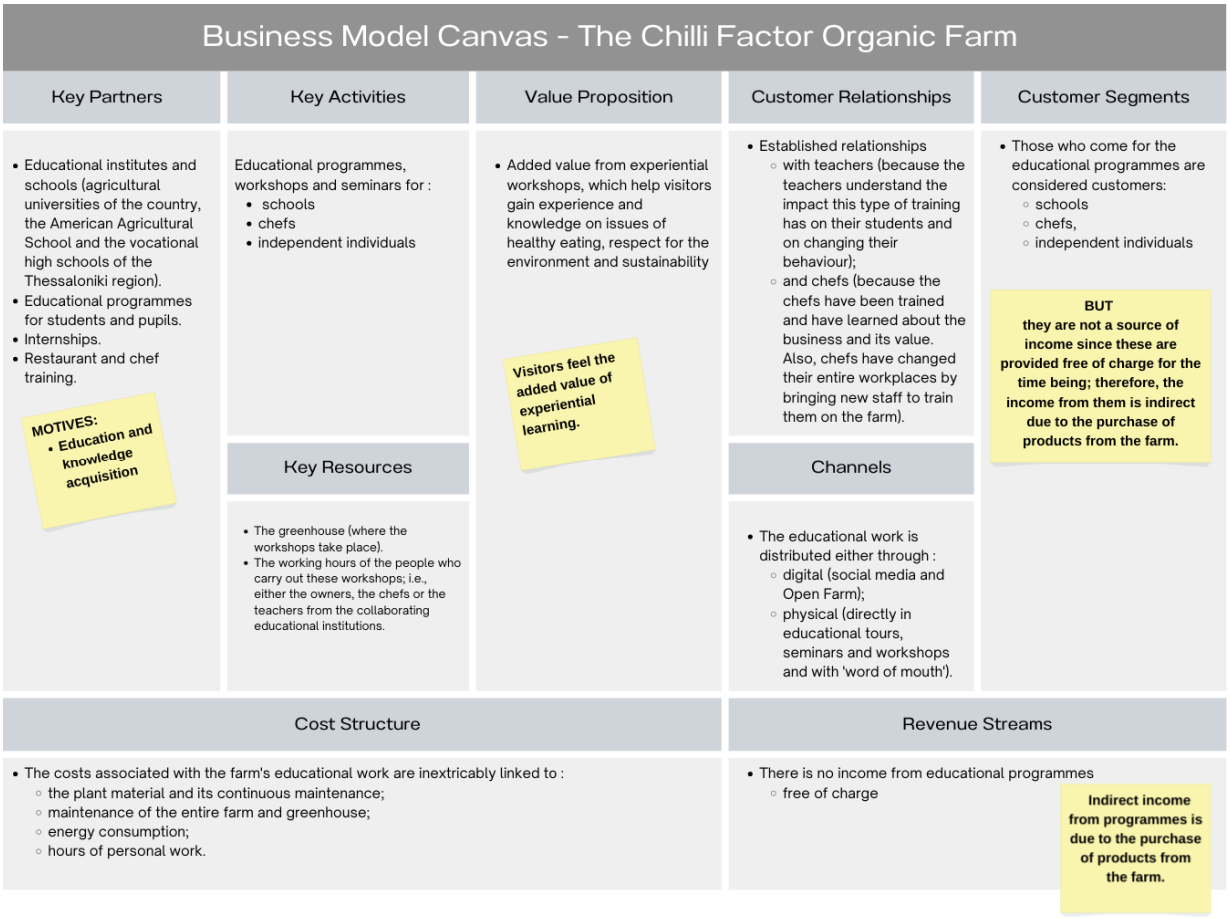



**Figure 2.** The BMC of The Chilli Factor Organic Farm. Source: authors' in-progress work (2025).

The **main agricultural resources** used are farmland, water and labour (three family members and two auxiliary staff) for greenhouse maintenance and harvesting work. The resources used for the training portion include the greenhouse and the family members who also act as tutors. **Relations with customers** are clearly interpersonal and well-established, while regarding the **distribution channels**, it was stressed that there are no intermediaries. Communication is either digital (social media and the Open Farm platform) and 'word of mouth'. The business targets **niche markets**, like organic farm markets and city restaurants. Regarding the **main cost drivers**, the farm follows the practice of 'no dig, no till'; hence, no heavy machinery for cultivation, and energy costs are almost zero. The main costs are in the seeds of microgreens and edible flowers but also in the agrofertilizers and organic fertilizers, which are more expensive than conventional ones. The costs associated with the training portion are inextricably linked to all the previous ones, since in order to carry out the training programmes, the plant material must be available and constantly maintained, energy must be consumed, hours of personal work must be devoted, etc. The **main revenue drivers** are all the catering transactions with the businesses and industries. The owners described the price that customers are willing to pay—for the micro greens, etc.—as 'fair', since the lack of a middleman does not create either an over-pricing of the product for

the buyer or an under-pricing for the producer's side. Finally, although there is no direct income from the training programmes, since there is no cost of participation, the income is indirect; e.g., from the chefs who come to be trained and then to buy their raw material from the farm, as well as gate sales.

## 4. Discussion

Based on the above results, it appears that the BMC tool helped the family farm (and the research) to identify future development strategies, which are summarized, and to collaborate with international universities for student exchange programmes and tailor-made educational courses, even with digital educational tools, as well as reach urban farmers and create seed packets and growing guides for teachers and schools and 'Do It Yourself' (DIY) kits for growing microgreens at home. All of the above activities and services might also be additional sources of income for the farm.

The main advantages of the business are its flexibility in activities for all age groups and visitor profiles, as well as the wide range of experiential activities. In addition, the farm contributes to the three pillars of economy, environment and society and thus to sustainable development. More specifically, with their products, they contribute to the development of the local economy by providing a product with great added value for society. Additionally, the educational activities on the environment that take place on these farms contribute to the formation of proper standards for the environment. Indeed, environmental education is the overarching concept between agritourism and learning.

## 5. Conclusions

Environmental education can play an integral part of the daily operation of a farm and experiential (hands-on) learning activities can help visitors understand the practices of organic agriculture and sustainability that take place, as well as raise awareness of ethical eating and biodiversity. However, there is a need for official certification and support of multifunctional farms by the Greek Ministry of Rural Development, which is something that till now has not been applicable. Tailor-made services are, by definition, services that are fit to the needs of the profile, size and farming system of the farm considered. To that end, future research should more systematically focus, through visitors' surveys, on learning needs and the willingness to pay for non-formal environmental educational services.

**Author Contributions:** Conceptualization, G.K. and M.P.; methodology, G.K. and M.P.; validation, G.K. and M.P.; formal analysis, G.K.; investigation, G.K.; resources, G.K.; data curation, G.K.; writing—original draft preparation, G.K. and M.P.; writing—review and editing, G.K., M.P., G.M. and K.P.; visualization, G.K.; supervision, M.P., G.M. and K.P.; project administration, G.K.; funding acquisition, G.K. All authors have read and agreed to the published version of the manuscript.

**Funding:** This research received no external funding.

**Institutional Review Board Statement:** Not applicable.

**Informed Consent Statement:** Informed consent was obtained from all subjects involved in the study.

**Data Availability Statement:** Data are available to anyone who asks via email.

**Acknowledgments:** Special thanks to "The Chilli Factor Organic Farm".

**Conflicts of Interest:** The authors declare no conflict of interest.

## Abbreviations

| | |
|---|---|
| BMC | Business Model Canvas |
| DIY | Do It Yourself |

## References


1. Partalidou, M.; De Matteis, L. *Sustainable Agritourism: An Opportunity for Agrifood Systems Transformation in the Mediterranean—Technical Brief*; FAO: Rome, Italy, 2024; Available online: https://openknowledge.fao.org/handle/20.500.14283/cd3578en (accessed on 1 August 2025).
2. Dalampira, E.S.; Papadaki-Klavdianou, A.; Michailidis, A.; Partalidou, M. Multifunctional farms in Greece: A new business model need assessment tool for their activities. *Agric. Econ. Rev.* **2018**, *19*, 14–25. [CrossRef]
3. Petroman, I.; Varga, M.; Constantin, E.C.; Petroman, C.; Momir, B.; Turc, B.; Merce, I. Agritourism: An educational tool for the students with agro-food profile. *Procedia Econ. Financ.* **2016**, *39*, 83–87. [CrossRef]
4. Flogaiti, E.; Liarakou, G.; Gavrilakis, K. *Participatory Teaching and Learning Methods: Applications in Education for the Environment and Sustainability*, 1st ed.; Pedio: Athens, Greece, 2021; pp. 60–191.
5. Ohe, Y. Educational Function of Agriculture and Farm Diversification: Evidence from Dairy Farming Experience Services in Japan. In Proceedings of the International Association of Agricultural Economists Conference, Beijing, China, 16–22 August 2009. [CrossRef]
6. Canavari, M.; Huffaker, C.; Mari, R.; Regazzi, D.; Spadoni, R. Educational farms in the Emilia-Romagna region: Their role in food habit education. In *Food, Agri-Culture and Tourism: Linking Local Gastronomy and Rural Tourism: Interdisciplinary Perspectives*; Springer: Berlin/Heidelberg, Germany, 2011. [CrossRef]
7. Sin, A.; Nowak, C.; Bogusz, M.; Kmita-Dziasek, E.; Kowalska, M. Education in rural areas in the selected EU countries on the example of educational farms. *Sci. Papers, Ser. Manag. Econom. Eng. Agric. Rural Dev.* **2018**, *18*, 415–420.
8. Lüdtke, K.A.; Thapa, P.P.; Zerbe, S. Can Education for Sustainable Development Support Climate Change Adaptation Effectively? A Delphi Study of Germany's Non-Formal Education Sector. *Eur. J. Educ.* **2025**, *60*, e12797. [CrossRef]
9. Uralovich, K.S.; Toshmamatovich, T.U.; Kubayevich, K.F.; Sapaev, I.B.; Saylaubaevna, S.S.; Beknazarova, Z.F.; Khurramov, A. A primary factor in sustainable development and environmental sustainability is environmental education. *Casp. J. Environ. Sci.* **2023**, *21*, 965–975.
10. Machado, T.M.; Simoncini, G.A.; Marchini, C.; Meschini, M.; Caroselli, E.; Franzellitti, S.; Prada, F.; Goffredo, S. Long-Term Effects of an Informal Education Program on Tourist Environmental Perception. *Front. Mar. Sci.* **2022**, *9*, 830085. [CrossRef]
11. Partalidou, M.; Paltaki, A.; Lazaridou, D.; Vieri, M.; Lombardo, S.; Michailidis, A. Business model canvas analysis on Greek farms implementing Precision Agriculture. *Agric. Econ. Rev.* **2018**, *19*, 28–45. [CrossRef]
12. Mustaniroh, S.A.; Prabaningtias, N.; Citraresmi, A.D.P. Analysis of Business Development Strategies with Business Model Canvas Approach. *IOP Conf. Ser. Earth Environ. Sci.* **2020**, *515*, 012075. [CrossRef]


**Disclaimer/Publisher's Note:** The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of MDPI and/or the editor(s). MDPI and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.