



Managing AgMarketing Gap Trough Risk Management Education in Puerto Rico



Tatiana Méndez Toro, PhD¹; Alexandra Gregory, PhD²; Gladys M. González, PhD³; Myrna Comas, PhD⁴; Marydoris Quiñones⁵, Fer Monroig⁶, tatiana.mendez1@upr.edu, alexandra.gregory@upr.edu, gladys.gonzalez7@upr.edu, myrna.comas@upr.edu, marydoris.quinones@upr.edu, fernando.monroig@upr.edu. [1] Assistant Professor, [2 &4] Professors, and [3] Professor Emeritus in Agricultural Economics, University of Puerto at Mayagüez. [5 & 6] graduate student in Agricultural Economics and undergraduate student in accounting at the University of Puerto at Mayagüez.

Abstract

Census data reveals that Puerto Rico has 8,230 farmers, with an average market value of agricultural sales totalling \$485.05 million. However, 67% of farmers report sales of less than \$10,000 annually (2018 Census of Agriculture, NASS). Marketing is one of the major challenges for Puerto Rican farmers, limiting their growth potential. This project seeks to address the marketing gap through non-formal education. The program provided 21 hours of marketing education, covering topics such as the marketing mix, risk management, consumer behaviour, promotion and place strategies, product and price strategies, value-added marketing, and marketing plan development. The program was delivered through a combination of online and in-person sessions, engaging an average of 59 participants per topic. To assess the program's impact, participants completed questionnaires to gather profile data, pre- and post-tests to measure knowledge acquisition, and short tests for immediate learning assessment. This poster will present the findings, analysing whether participants gained knowledge and evaluating the trainings' impact on their farms and agribusinesses. It will offer insights into the effectiveness of non-formal education in enhancing marketing skills and provide recommendations for future initiatives to support the growth and sustainability of Puerto Rican farmers.

Introduction

The Southern Risk Management Education Center is dedicated to providing local farmers with the knowledge and skills necessary to improve their strategic planning, problem-solving, and decision-making capabilities in the agricultural sector. Puerto Rico's agricultural sector faces significant challenges, with limited access to marketing knowledge and resources. Farmers often struggle to reach broader consumer markets, affecting their ability to grow and thrive. This marketing gap is compounded by the island's vulnerability to extreme weather, with more frequent storms and natural disasters such as hurricanes and earthquakes, which disrupt production and damage infrastructure. Additionally, the agricultural sector in Puerto Rico is largely characterized by small-scale farming operations, which often lack the financial and technical capacity to implement effective marketing strategies.

This project aims to address these challenges by providing non-formal education focused on agricultural marketing. The goal is to equip farmers, ranchers, and fishermen with essential marketing tools and knowledge to enhance their marketability and business sustainability. The [educational program offers 21 hours per group](#) of instruction covering key marketing concepts such as the [marketing mix, consumer behaviour, pricing strategies, promotion, distribution, value-added marketing, and developing a comprehensive marketing plan](#). By focusing on these areas, the program seeks to help farmers strengthen their marketing strategies, better connect with local and regional markets, and increase their competitiveness. The project utilizes a blended approach to delivery, offering both online and in-person trainings. Online trainings took place from October to November 2024 using the Zoom platform, while in-person trainings were held at the Juana Díaz Experimental Substation from February to March 2025. [A total of 59 participants](#) on average per topic engaged in these trainings. To assess the program's effectiveness, participants completed demographic questionnaires, pre- and post-tests, and short assessments, allowing the team to measure knowledge gains and evaluate the program's impact on participants' agricultural businesses. The findings will provide insights into the role of marketing education in improving the resilience and growth of Puerto Rico's agricultural sector.

Methodology

A formal assessment of educational activities was conducted. Data was collected through online surveys, which were distributed to participants following their registration in the online trainings, which primarily consisted of lectures and trainings. These questionnaires were sent to participants via email from October to November 2024 for the online trainings, and from February to March 2025 were delivered by face-to-face trainings. The pre- and post-test results were analyzed to measure participants' knowledge after attending the trainings. A Likert scale-type question (ranging from little bit to A lot) was used to measure participants' perceived knowledge on selected topics, Table 1. A total of 23 participants completed both the pre- and post-tests.

Results and Conclusions

During the fall semester, non-formal education was provided through distance learning to farmers, ranchers, and fishermen, while the spring semester involved in-person instruction. A total of 42 contact hours were delivered across fourteen days of trainings. These trainings were promoted through social media, group chats, extension agents, and email outreach to previous participants. [The topics covered included an Introduction to the Marketing Mix, Risk Management and the Importance of a Business Plan, Promotion and Place Strategies, Product and Price Strategies, Added Value, and Developing a Marketing Plan](#). Zoom served as the platform for the distance learning sessions, while the Juana Díaz Experimental Substation hosted the face-to-face trainings. Data for the pre- and post-tests was collected via Google Forms.

Table 1: Pre and Post knowledge results for selected topics

		SCALE			
		Little bit			A lot
Types of risks	Before	10	12	1	
	After	1	5	16	
	Change	-9	-7	15	
Managing Risk	Before	10	11	2	
	After	0	9	14	
	Change	-10	-2	12	
Marketing Strategies	Before	13	9	1	
	After	0	4	18	
	Change	-13	-5	17	
Price Strategies	Before	10	4	2	
	After	1	6	16	
	Change	-9	2	14	
Marketing Plan Development	Before	16	4	3	
	After	1	8	14	
	Change	-15	4	11	
Business Plan Development	Before	14	6	3	
	After	0	8	15	
	Change	-14	2	12	
Consumer Behavior	Before	14	6	3	
	After	0	8	15	
	Change	-14	2	12	
Market Segmentation	Before	16	6	1	
	After	0	9	14	
	Change	-16	3	13	
Target Market	Before	16	6	1	
	After	1	6	16	
	Change	-15	0	15	

After the trainings participants used knowledge to write their Business Plan and Marketing Plan. In addition, they develop their social media page for their business.



- **42.1% Increase in Business Plan development**
- **45.5% Increase in Marketing Plan development**

- **26.1% Increase Social Media presence**



Figure 1 shows participants' profile and Figure 2 shows participants' overall assessment for the course.

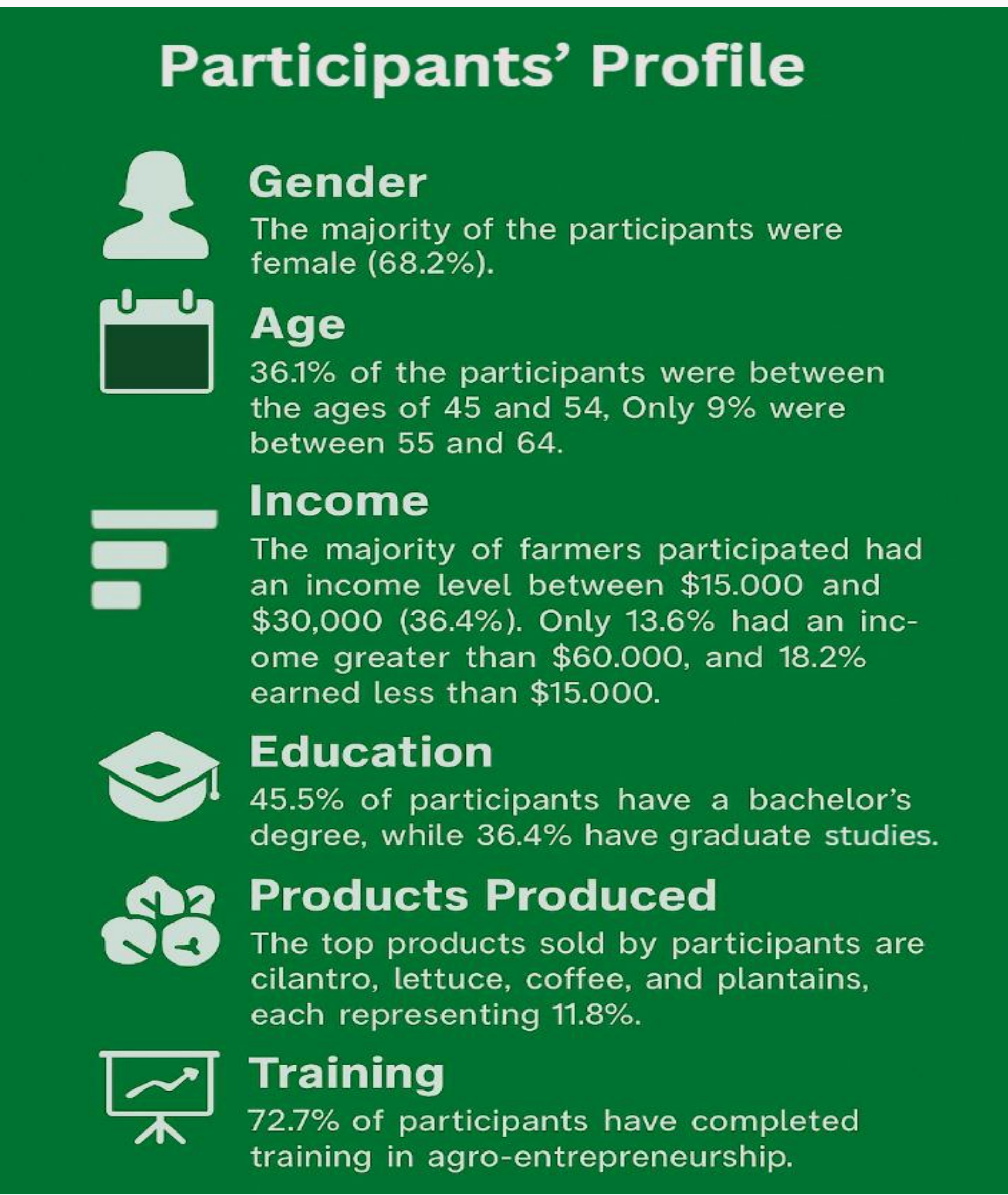


Figure 1: Participants' profile



Figure 2: Participants' overall assessment

Project Staff

Outreach instructors: Dr. Alexandra Gregory, Dr. Gladys M. González, Dr. Myrna Comas, Dr. Tatiana Méndez from the Department of Agricultural Economics and Rural Sociology

Graduate Student Assistant: Marydoris Quiñones Cancel graduate student in agricultural economics and Fer Monroig Sanchez undergraduate student in accounting

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