

Gender Disparity in Farming Efficiency of Baganga Oil Palm Growers Association in Davao Oriental at the Time of Pandemic

Vincent S. Languay¹, Maryjoy Bacus², Anecil Pagutayao³

Abstract

This study explores the demographic composition, farming efficiency disparities, and resilience strategies within the Baganga Oil Palm Growers Association during the COVID-19 pandemic. Conducted in Barangay Salingcomot, Baganga, Davao Oriental, the research utilized a quantitative design with complete enumeration of registered farmers, emphasizing comprehensive data collection. Findings reveal a predominantly older farming demographic, with the majority aged 51-59 years, and limited educational attainment, as 37% of respondents had only reached the elementary level. These factors constrained adaptability to modern techniques. Gender-based disparities highlighted that male farmers excelled in physically demanding tasks, while female farmers exhibited strengths in management-related activities but were hindered by dual farming and household responsibilities. Coping mechanisms included resource pooling, diversification, and cooperative support, which enhanced resilience amid pandemic disruptions. The study underscores the need for youth engagement, educational interventions, gender-sensitive policies, and cooperative strengthening to ensure equitable and sustainable agricultural development for the community.

Keywords: Gender Disparities in Farming; Farming Efficiency; Resilience Strategies; Cooperative Support

Introduction

This research investigates the critical challenges facing the agricultural sector in Davao Oriental, Philippines, focusing on the sociodemographic profile of farmers, gender disparities impacting efficiency, and the coping strategies employed during the COVID-19 pandemic. The study highlights a concerning aging workforce, with a majority of farmers aged 51-59, raising questions about the future labor force and adoption of modern practices, alongside a significant gender imbalance where women, despite their strengths in crucial areas, face underrepresentation and systemic barriers exacerbated by the pandemic; furthermore, low educational attainment among a substantial portion of farmers hinders the adoption of innovative techniques and resilience to crises, underscoring the importance of cooperative support as a key coping mechanism to inform future policies and interventions aimed at fostering a more inclusive and resilient farming community in the region.

Literature Review

The study assessed the efficiency of farming by the Baganga Oil Palm Growers Association in Davao Oriental which has been greatly affected by the COVID-19 pandemic with implications of gender inequalities. Women farmers who are more centrally involved in experiencing and managing economic and social problems in households were most affected during this period. This covid-19 pandemic affected their productivity and income status of the people by increasing the prevalence of already existing inequalities. Farm and garden workers are frequently women who take up the caring role, and indeed, with the COVID crisis, gender stereotypes reemerged, and a bulk of women were left to take care of their households (Budge & Shortall, 2022). Due to Covid affected economy, women farmers faced a low income threat issue where women farmers reeled under reduced production and the problem of locked up funds (Cruz, 2023) (Umasha, 2022). concerning mental health, women farmer saw the pressure and expectations of performing emotional works at home and on their farms photographs (Budge & Shortall, 2022). It was also discovered that women regressed to their roles of inequality during the time, where sociological roles returned to their traditional status such as during the early 2000s (Budge & Shortall, 2022). Thus, the coping strategies that women adopted to reduce the impact of the pandemic on their income include crop diversification and trying to find other markets for the products (Neha & Kumar, 2021). However, the existing structural barriers in the sector persisted, and hindered efforts at attaining efficiency and sustainability in development (Umasha, 2022). On the other hand, while women were worse off due to pandemic induced effects, a few men in the fields noted they did not experience a negative impact on gender roles in the sector. This gives credence to the proposition that gender concerns must be targeted in efforts at building resilience in farming cultures.

Hypotheses

H01: Farmers with higher educational attainment will demonstrate better adaptability and efficiency in their farming practices. This is supported by findings indicating that education correlates positively with adaptability among farmers

H02: Gender plays a significant role in determining the efficiency and productivity of farmers. Male farmers excel in physically demanding tasks, while female farmers are more adept in management-related activities. However, the dual responsibilities of women in both farming and household roles may hinder their overall productivity

Method

The method used in the study was quantitative where the study had to depend on information that quantifies the measures or values. In this study, the researcher adopted a quantitative research approach to provide quantitative research data that was measurable, objective and that could be easily repeated regarding productivity of the agricultural operations, gender differences and flexibility of BOGAGA during the COVID-19 pandemic. Research designs employed in this study was the complete enumeration which implies that the study targeted all the registered farmers in the subject community. This was effective in a way that the results embraced all the demographic hence enhancing validity and reliability of the findings. Hybrid research design: The author employed the use of the structured

questionnaires in gathers data during this study. It was done in line with the study objectives and objectives and used closed questions to reduce variance in the subjects response. This was particularly relevant for improving the reliability of the data collected and reducing variations that would be needed for analysis by statistical means. The questionnaire developed for the purpose of the implemented study covered several aspects: Some of the specific indicators used in the study included the sociodemographic data of the respondents such as age, gender, and education levels, efficiency rates, as well as the approaches that the farmers had to adapt to during the pandemic. This enabled the evaluation of all the factors that could influence the agriculture practice and the resilience. Quantitative data on the study participant's socio-demographic characteristics was summarized using descriptive statistics with the aid of frequency table while inferential statistics in the form of T-test was used in order to compare the study participants farming efficiency level based on gender difference. Regression analysis was also employed in this study so as to establish the relationship between variables such as educational outcome and flexibility to new forms of farming. Enumerators were also put through series of briefing in ethical and procedural issues to ensure that the data to be collected was accurate. It also prevented bias and inaccurate information and also made it more valid in the data that was collected.

Result and discussion

The result of the study provided several insights on the demographics of the BOPGA members, farming productivity, and coping measures during the COVID-19 outbreak period. The study found out that people in the Barangay Salingcomot involved in Cultivating crops are mostly in middle-aged and elderly category, with a 51-59 years age bracket dominating the population. As seen on the pyramid, the war on succession indicates that the next generations do not have much interest in engaging in farming activities, and this is a growing concern for the sustainability of the agriculture workforce. This means that in the not too distant future, there will be a scarcity of human resource in the agricultural sector in the region and this will greatly affect agricultural productivity and ultimately food security. They further established that 37% of the farmers had a basic education at most having only attended elementary level. This limited education hinders them from embracing modern farming techniques and practices, and hence they still use traditional practices. This means that when there are changes that occur in the labor market and the agriculture industry in particular, they might not be in a position to adapt quick enough and effectively given that they lack education. The study further showed that there was a lot of inequality between the genders in the levels of efficiency of farming. Males were found to be performing better in the Bodily aspect and mechanical aptitudes, while females performed better in the Problem Solving aspect in farm management activities like crop intensification and post-harvesting operations. The cross-tabulation of gender, livelihood and the type of farming revealed that female farmers had more work to do on the farm and at home, making them less productive. As a result, it is important to adopt gender-sensitive policies that can help female farmers to balance on these responsibilities. It enumerated different ways farmers used to build up their coping strategies during the recent pandemic outbreak. These factors included accumulation of resources, crop integration, and mutual support from farmers. Such strategies were vital in managing the impact of Covid-19 on the operations of the agricultural sector and delivery of the food produce to the market.

Table 1: Sociodemographic Profile

Sociodemographic Factor	Finding
Age Distribution	Majority aged 51-59 years, highlighting an older farming demographic.
Gender Composition	63% male respondents, emphasizing gender disparities in farming roles.
Educational Attainment	37% reached only elementary level, limiting adaptability to modern techniques.

Table 2: Farming Efficiency: Gender-Based Disparities

Efficiency Factor	Male Farmers	Female Farmers
Physical Labor Tasks	High efficiency in land preparation and machinery use	Limited involvement due to societal constraints
Management Activities	Moderate efficiency	High efficiency in diversification and post-harvest

Table 3: Coping Mechanisms and Resilience Strategies

Coping Strategy	Details
Resource Pooling	Cooperative members shared farm inputs and financial aid.
Diversification	Mixed cropping systems ensured food security and income stability.
Cooperative Support	Emergency loans and training provided a safety net for both genders.

Table 4: Correlation and Insights

Correlation	Finding
Education and Efficiency	Farmers with higher education showed better adaptability.
Gender and Resilience	Male farmers employed diversification strategies; female farmers focused on household security.

Conclusion

The findings based on the research of the Baganga Oil Palm Growers Association exposed some of the demographic and educational issues in the farming community during the COVID-19 outbreak. The older age group farmers, especially those in the age bracket 51 to 59 appear to have fully dominated the sample. This puts in doubt the future availability of labor in agriculture because producers of this age are

likely to retire. Lastly, 37% of farmers have only basic education implying that they cannot easily embrace new techniques of farming as well as new trends in farming. These points indicate that major and intensive approaches of increasing demand for qualified and young people in the sector should be encouraged through provision of education to improve farmers' abilities and knowledge in this area so that the productivity of agriculture in the region can be sustained for the future. In addition to demographic and educational issues, the study also revealed several gender issues related to productivity and the importance of the strategies used to cope with such crises. While the male farmers performed excellent in the physical activities and handling of machinery, the female farmers were good in management and diversification. However, the double burden of tasks assigned to women reduced their effectiveness and underlined the importance of gender-friendly policies to strengthen women and boost their performance. On the other hand, the study highlighted some of the useful strategies adopted and implemented by the farmers during the pandemic as part of coping strategies which are such as resource sharing, crop rotation, and mutual support. These observations call for increased support of networks and institutions to help strengthen the agricultural sector and the support system that would enable it to sustain the production in the event of another calamity.

Practical Implication

The findings of the study on the Baganga Oil Palm Growers Association in the Context of COVID-19 Pandemic has made the following practical implications. Priority interventions were targeting the areas of education, youths, women, cooperatives, and health improved practices to enhance agricultural community. Continuing education programs for the adults, boy and Girl Scout / 4-H movement, scholarships, gender neutral policies. Implementing services to support women farmers, ensuring proper organizational support for cooperation to obtain funding support, and training of the female farmers. The incorporation of health and safety measures in the course of farming is the next careful steps that can help in reversing the challenges and enhance on opportunities for future agricultural growth in Baganga as well. The study highlights that adoption of digital extension services among farmers is shaped by interrelated factors. To strengthen the adoption of digital extension services. This is practical strategies in improving digital infrastructure, strengthen digital literacy program, strengthen institutional and financial support and established monitoring and evaluation.

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