International Journal of Science and Research (IJSR)
ISSN: 2319-7064
Impact Factor 2024: 7.101

Economic and Community Benefits of Salted Egg Production: A Case Study of Adopters in Bani and Dasol, Pangasinan

Jocelyn S. De Vera[1*] Rose Dyan L. Sagun[2], Jim L. Aleta[3], Amalia A. Ancheta[4], Mark Harley V. Bristol[5]

[1, 2, 4]College Teacher Education, Faculty, Pangasinan State University
[1]Corresponding Author Email: *Jsdevera[at]psu.edu,ph*

[3, 5]College Hospitality Management and Tourism, Pangasinan State University

Abstract: ***This study examines the impact of salted egg production on the livelihoods of adopters in Amalbalan Dasol Pangasinan and in Bani, Pangasinan, focusing on the demographic profile of respondents, the benefits accrued from adoption, and the role of implementers in facilitating this agricultural practice. The study employed a descriptive survey method utilizing frequency and percentage. Results showed that the majority of respondents are female (75%), predominantly aged 51 and above, with 75% being married. Occupations among the respondents vary, with a significant representation of vendors and barangay officials, highlighting a diverse socio-economic background. A notable 97.67% reported enhanced income levels and increased community connections through vending, while the ability to diversify products, such as creating salted egg-based delicacies, was less commonly reported (8.33%). Additionally, 100% of adopters reported receiving guidance and training from implementers. Additionally, 91.66% indicated that implementers actively monitored their sales and product sustainability. The connection to potential markets was noted by 75% of respondents, demonstrating a significant support system, although communication for sales assistance was utilized by only 66.66%. In conclusion, the findings highlight the beneficial outcomes of salted egg production for adopters, encompassing increased knowledge, income diversification, and community engagement, all supported by effective implementer guidance.***

Keywords*:* Salted egg production, economic benefits, community livelihood, food preservation, rural entrepreneurship

1. Introduction

Pangasinan has abundant water resources. particularly along its western coastline. Where several towns—such as Sual, Alaminos, Dasol, Bani, Anda, and Bolinao—are celebrated for their salt production. Among these, Dasol is particularly renowned as the proud home of the esteemed "Quality Salt of Pangasinan," which is lauded for its exceptional taste and purity. Salt, scientifically known as sodium chloride (NaCl), is an essential commodity that has significantly contributed to human civilization throughout history. It not only enhances culinary flavors and preserves food but also plays vital roles in various industries and biological processes. As global demand for salt continues to rise, both locally and internationally, the domestic salt industry faces considerable challenges, notably due to the influx of cheaper imported salt and adverse weather conditions (Montojo et al., 2024).

Delos Santos (2016), in her research, stated that Dasol is distinguished as the "Home of Quality Salt" in the Philippines, with seven of its eighteen barangays engaged in the production of rock and fine salt, including Gais-Guipe, Hermosa, Magsaysay, Malacapas, Amalbalan, Uli, and Bobonot. Among the seven salt-producing barangay, Amalbalan is an adopted of Pangasinan State University, Alaminos City Campus.

Out of the seven (7) salt-producing barangay, Amalbalan is an adopted of Pangasinan State University, Alaminos City campus. Meanwhile, Alaminos City, while producing salt as well, has only two of its 39 barangays with only the barangays Pangapisan and Mona being actively involved in salt production. The nearby town of Bani also contributes to the region's salt industry where out of its 27 barangays only Banog Norte and San Miguel produces salt.

In a significant initiative, researchers from the Pangasinan State University (PSU) Alaminos City campus have innovatively altered traditional practices in salt-based food products. Instead of adding clay to salted eggs, they introduced a method utilizing macerated salt brine. This research was further extended to the adopted barangays of PSU Alaminos City during the pandemic, starting with barangays Bolaney, Bisocol, and Pangapisan in Alaminos City. In 2021, additional extensions were conducted with salt makers, cooperatives, Kalipunan ng Liping Pilipina (KALIPI) members, and housewives in Barangay Amalbalan, Dasol, Pangasinan. A series of monitoring activities were carried out in these adopted barangays.

In 2024, the research proponents conducted training sessions for cooperative members, KALIPI members, barangay officials, and beneficiaries of the Balik Probinsya program in Bani,Pangasinan another salt-producing town in Pangasinan where the extension activity is dubbed as Asin: Ating Gamitin, A Salted Egg Extension Activity. This collaborative effort culminated in the creation of their unique Golden Salted Egg, which they began selling in December 2024.
The main purpose of this study is to assess the economic and social benefits of salted egg production while evaluating the role of implementers in providing training, guidance, and market opportunities. This study is significant is significant as it highlights how food-processing methods can contribute to rural economic development, empower local vendors, and foster community engagement. Insights from implementers will aid policy makers in improving Livelihood Programs in

Amabalan and Bani Pangasinan, both are adopted barangay of PSU Alaminos.

By exploring these dimensions, the research aims to provide a comprehensive understanding of the impact of salted eggs on adopters.

Objectives

The primary objectives of this research are as follows:

1) To assess the economic and social benefits of salted egg production in the adopted barangays.
2) To evaluate the role of the implementers in providing training, guidance, and market opportunities.
3) To gather insights from implementers that can inform better practices and policies within the salted egg industry.
4) To provide a comprehensive understanding of the broader implications of salted egg adoption on the adopters' livelihoods and well-being.

2. Review of Related Literature

Salted Egg Production

Salted eggs are a popular preserved food product, widely consumed in various countries, particularly in Asia. In the study of Huang et al. (2019) salted eggs are made by coating fresh duck eggs with a mixture of clay, salt, and water, allowing them to cure for several weeks. While Zhao et. al (2020) described that the preservation method enhances the flavor and texture of the eggs, giving them a distinct umami taste and a rich, creamy yolk.

Further, Lui et. al (2021) said that the nutritional value of salted eggs has been a subject of research, highlighting their high protein content, essential fatty acids, and minerals such as calcium and phosphorus. However, concerns over high sodium content have led to the exploration of alternative curing methods to reduce salt levels while maintaining quality (Chen et al., 2022). Some studies have also examined the impact of different curing durations and salinity levels on the taste and texture of salted eggs (Martínez et al., 2023).

3. Methodology

This study employed a case study to assess the benefits derived by adopters of salted eggs from implementers within the industry. The case study method is particularly suitable for this research as it allows for an in-depth exploration of complex phenomena within their real-life context. This approach is instrumental in understanding the multifaceted impacts of salted egg adoption on individuals and the role of implementers in facilitating these benefits

Participants

The study involved a purposive sampling strategy, focusing on 12 salted egg adopters. These participants were selected because they are in the adopted barangay as well as leaders /adopters who are producing salted eggs.

Data Collection

Data were collected through semi-structured interviews, which were conducted both face-to-face and online to accommodate participants' preferences and circumstances. This dual approach allowed for flexibility and accessibility, ensuring that a diverse range of perspectives were captured.

4. Results and Discussion

Table 1 shows the profile of the respondents. The majority of the respondents are female with a percentage of 75% while the age group 51-above got the highest rate (41.67%). As to the civil status of the respondents, nine (9) or 75% of them were married and two (2) or 16.67% were widows. As to their occupation, there are two (2) or 16.67% of them are housewives, farm owners and barangay health workers, 25% of them are vendors and barangay officials. As to their location, there were nine (9) or 75% of the respondents were from Amalbalan, Dasol Pangasinan while only two (2) or 16.67% are from Bani, Pangasinan. The salted egg training was conducted in Amalbalan Dasol in 2021, while in Bani it took place in 2024.

Table 2: Benefits of Salted Egg as Responded by Adopters, n=12

Indicators	Frequency	Percentage
Sex		
Female	9	75%
Male	3	25%
Age		
31-40	1	8.33%
41-50	6	50%
51 above	5	41.67%
Civil Status		
Single	0	0
Married	9	75%
Widow	2	16.67%
Separated	1	8.33%
Occupation		
Housewife	2	16.67%
Vendor	3	25%
Farm Owner	2	16.67%
Barangay Official	3	25%
Barangay Health Worker		
Location		
Amalbalan ,Dasol Pangasinan	9	75%
Bani ,Pangasinan	2	16.67%

Indicators	Frequency	Percentage
1. I gained valuable knowledge about salted egg production (*Natutuo ako ng gumawa ng itlog maalat.*)	12	100%
2. I can produce salted eggs as food for my family. (*Kaya ko ng gumawa ng itlog maalat bilang ulam para sa aking pamilya.*)	11	91.67%
3. It diversified my means of storing eggs. (*Nalinawan ako na pwede pa lang timbak ang itlog maalat.*)	12	100%
4. It improved my income levels. (*Nadadagdagan ang aking kita.*)	11	91.67%
5. I was able to connect with other vendors in the community. (*Nakilala ko pa 'yong mga ibang tao at pati 'yong mga ibang nagtitinda rin.*)	11	91.67%
6. I was able to produce other products out of salted egg such as puto with salted egg, bibingka with salted egg, also in sisig and relyeno dishes. (*May mga ibang produkto rin akong nadiskubre na puwedeng lagyan pala ng itlog maalat tulad ng puto, bibingka, sisig at 'yong relyeno.*)	1	8.33%

7. I/we were able to produce salted eggs and deliver them to some restaurants for their menu. (*Iyong ginagawa namin na itlog maalat ay binibili rin ng iba sa amin at nilalagay nila sa mga ulam at bibingka nag awa nila.*)	3	25%
8. I/we became popular because people started ordering salted eggs and salted egg products from me. (*Nakilala ako dahil nagde-deliver na ako ng itlog maalat tapos pinakilala ako doon sa mga may restaurant at mga ibang vendor. Kaya sakin sila umuorder.*)	3	25%
9. Producing salted eggs became a source of my extra income. (*Nagkaroon ako ng kita dito sa paggawa ng itlog maalat.*)	7	58.33%

Table 2 shows the benefits of salted egg adopters. As gleaned on the table indicator stating that "I gained valuable knowledge about salted egg production" and "*It diversified my means of storing eggs*" got a frequency of 12 or 100%. This indicator is followed by "*It improved my income levels*.", "*I was able to connect with other vendors in the community*", and "I can produce salted eggs as food for my family." Got a frequency of 11 or 97.67%. The statement indicating "*I was able to produce other products out of salted egg such as puto with salted egg and bibingka with salted egg*" got the least frequency or 8.33%. The said responses were translated by the researchers because the adopters answered them in their own dialect.

Table 3: Role of Implementers as Assessed by Adopters, n=12

Role of Implementers	Frequency	Percentage
1. Guidance and Training: Implementers provide essential training on best practices for salted egg production, ensuring adopters understand the processes involved. (*Ang PSU Alaminos ang nagturo sa aming gumawa ng itlog maalat. Nagkakaroon sila ng monitoring at dinadalaw nila kami.)*	12	100%
2. They sometimes order salted eggs from us and they sell in schools.(*Noong panahon ng pandemic umo order sila sa amin at pag may bisita sa school nila pinapapunta kami doon para magdeliver at magtinda.)*	3	25%
3. The implementer's office technical support to us such as sharing our products through their Facebook page, and also they get orders from their colleagues. (*Noong nagmonitor sila,sabi nila papaya daw ba kami na ipost nila sa facebook.Sympre pumayag kmi para mas makabenta kami.*)	7	58.33%
4. They help connect adopters with potential markets, facilitating sales and helping to establish a customer base for our salted egg products. (*Noong nagsisimula pa kami may mga ni refer silang tao na bibili sa amin para daw sa restaurant nila*.)	9	75%
5. Implementers actively seek feedback from adopters and share with other adopters about our practices too. (*Yong mga taga PSU po nagtatanong din po sa amin kung ano masasabi naming sa mga training at monitoring nila*.)	7	58.33%
6. They visit us and monitor our sales and the sustainability of our products. (*Pumupunta sila dito sa amin,dinadalaw kami para magmonitor, tinatanong kung nagbbenta pa ba kami at kumusta ang kita.*)	11	91.66%
7. I/We sometimes message them if we have a few customers (and we produce a lot of salted eggs) to help us sell our products.(*Nagmemesage kami sa Messenger nila madam o sir pag marami kami nagawa at kaunti lang bumibili*.)	8	66.66%

Table 3 presents the role of the implementers as assessed by the adopters. The statement on which the "*implementers have provided them with guidance and training*" got a frequency of 12 or 100%. Another indicator stating that "*they visit and monitor our sales and the sustainability of our products*" has a frequency of 11 or 91.66%. In addition, a statement stating that " *They help connect adopters with potential markets, facilitating sales and helping to establish a customer base for our salted egg products." Got a frequency of nine or 75%* and there are eight (8) or 66.66% on the statement stating *"I/We sometimes message them if we have a few customers (and we produce a lot of salted eggs) to help us sell our products*."

5. Conclusion

In conclusion, the results presented in the tables provide a comprehensive overview of the demographic profile of the respondents, the benefits derived from adopting salted egg production, and the role of implementers in supporting these adapters.

The demographic data indicates a predominance of female respondents, primarily aged 51 and above, with a significant portion being married. The occupational diversity includes vendors, barangay officials, and a small number engaged in other roles, highlighting the involvement of various community members in this initiative.

In terms of benefits associated with salted egg production, all respondents acknowledged the acquisition of valuable knowledge and improved storage methods, which underscores the efficacy of the training provided. Additionally, the positive impacts on income and community connections point to the potential of salted egg production as a viable economic activity. However, it is noteworthy that the production of additional products, such as puto and bibingka with salted egg, received the least emphasis, indicating an area for further development.

Furthermore, the role of implementers was viewed positively by the adopters, with unanimous agreement on the provision of guidance and training. The implementers' efforts in monitoring sales and facilitating market connections were also appreciated, though the need for ongoing communication regarding customer needs suggests an opportunity for enhanced support.

Overall, the findings reflect a successful initiative in salted egg production, with substantial benefits for the participants and a supportive role played by the implementers. These insights can inform future programs aimed at promoting

sustainable income-generating activities in the community. Future research could explore scalable business models for salted egg production and assess long-term sustainability for rural entrepreneurs.

References

[1] Chen, X., Liu, Y., & Zhao, M. (2022). "**Reducing sodium content in salted eggs: A review on alternative curing methods.**" Food Science & Nutrition, 10(3), 452-463.
[2] Delos Santos, Camille B., **An analysis of the production and marketing of salt in Dasol, Pangasinan (2016)**, Undergraduate Thesis Agri Management https://www.ukdr.uplb.edu.ph/etd-undergrad/4605/
[3] De Vera, J.S., Sagun RD.L. "**Salted Egg Enhancement Transfer in the Adopted Barangays"** Philippine Journal of Extension Services 1(1): 21-28, December 2021 ISSN 2961-3558 pjes2021-0004 PDF (pjes.psu.edu.ph)
[4] Fernandez, J., Ramos, P., & Castillo, L. (2022). "**Effects of alternative curing agents on the texture and sodium content of salted eggs**." Journal of Food Processing and Preservation, 46(5), e16234.
[5] Francisco AB, Llamar NL, Chavez EH. 2022. Salt-making as a stunting enterprise and practice: the case of Ilocos Sur, Philippines. Social Sciences, Humanities and Education Journal. 3(2):159–169. https://doi.org/10.25273/she. v3i2.12682
[6] Gao, P., & Li, X. (2020). "**Effects of tea polyphenols on the sensory attributes and microbial safety of salted eggs.**" Journal of Food Processing and Preservation, 44(6), e14421.
[7] Huang, J., Wang, L., & Zhang, H. (2019). "Traditional and modern approaches to salted egg production." International Journal of Food Science & Technology, 54(4), 1120-1132.
[8] Kim, H., Park, J., & Lee, S. (2021). "**Probiotic-infused brining solutions for functional salted eggs**." Journal of Dairy Science & Technology, 98(2), 203-215.
[9] Lee, C., & Chen, T. (2021). "**Government support and small-scale adoption of food processing technologies: A case study on salted eggs**." Asian Journal of Food Science, 36(1), 45-59.
[10] Montojo, Ulyses et al. / **The Philippine Journal of Fisheries 31(1): in press**
[11] **Status of the Salt Industry in the Philippines**: Production, Challenges, and
[12] DOI: 10.31398/tpjf/31.1.2023A0008
[13] Senate Bill No. 1334. Philippine Salt Industry Development Act 2022. 20 September 2022. http://legacy.senate.gov.ph/ lisdata/3945935852!.pdf