

MARKET DYNAMICS AND DISTRIBUTION STRATEGY IN THE AGRICULTURAL INDUSTRY: AN EXPLORATORY STUDY

Kenneth L. Armas ^{*}, Khriz N. Fernandez ^{**}, Aileen Vigilia Faigal ^{**},
Alma Pia Garcia-Reyes ^{**}

^{*} Corresponding author, Nueva Ecija University of Science and Technology, Cabanatuan City, Philippines
Contact details: Nueva Ecija University of Science and Technology, Gen. Tinio Street, Quezon District, Cabanatuan City,
3100 Nueva Ecija, Philippines

^{**} Nueva Ecija University of Science and Technology, Cabanatuan City, Philippines



Abstract

How to cite this paper:

Armas, K. L., Fernandez, K. N., Faigal, A. V., & Garcia-Reyes, A. P. (2025). Market dynamics and distribution strategy in the agricultural industry: An exploratory study. *Corporate & Business Strategy Review*, 6(1), 210–220. <https://doi.org/10.22495/cbsrv6i1art20>

Copyright © 2025 The Authors

This work is licensed under a Creative Commons Attribution 4.0 International License (CC BY 4.0).
<https://creativecommons.org/licenses/by/4.0/>

ISSN Online: 2708-4965
ISSN Print: 2708-9924

Received: 19.04.2024
Accepted: 27.01.2025

JEL Classification: M30, M31, M37, Q1
DOI: 10.22495/cbsrv6i1art20

This exploratory study examines the marketing practices and distribution strategies of an agricultural industry in San Antonio, Nueva Ecija, the Philippines, with a focus on the local broom reed or “tambo”, which holds significant ecological and economic value. The research investigates production methods, marketing strategies, distribution channels, and pricing practices, revealing that small-scale enterprises predominantly use markup pricing and selective distribution. Geographic reach extends beyond San Antonio to neighboring provinces and metropolitan areas, with many producers utilizing their own delivery vehicles and offering free delivery services. However, these enterprises face challenges, including limited access to capital, inadequate marketing infrastructure, and logistical difficulties, which restrict their ability to scale. The findings emphasize the need for sustainable development initiatives and government support to address these constraints and promote growth. This study provides valuable insights into the marketing dynamics of the broom reed sector, offering recommendations for targeted interventions that could improve production efficiency and market reach, ensuring long-term sustainability and economic viability for the industry.

Keywords: Broom Reed, Marketing Strategies, the Philippines, Promotion, Pricing Strategies

Authors’ individual contribution: Conceptualization — K.L.A.; Methodology — K.L.A.; Software — K.L.A., A.V.F., and A.P.G.-R.; Validation — K.L.A., A.V.F., and A.P.G.-R.; Formal Analysis — K.L.A.; Investigation — K.L.A., K.N.F., A.V.F., and A.P.G.-R.; Resources — K.L.A., A.V.F., and A.P.G.-R.; Data Curation — ...; Writing — K.L.A.; Visualization — K.L.A., A.V.F., and A.P.G.-R.; Supervision — K.L.A.; Project Administration — K.L.A.; Funding Acquisition — K.L.A., K.N.F., A.V.F., and A.P.G.-R.

Declaration of conflicting interests: The Authors declare that there is no conflict of interest.

Acknowledgements: The Authors extend their gratitude to the Nueva Ecija University of Science and Technology for its invaluable support and resources throughout this research. Additionally, the Authors appreciate the faculty members and colleagues who offered valuable insights and assistance, as their guidance and encouragement played a crucial role in the successful completion of this research.

1. INTRODUCTION

In the absence of cleaning tools, living spaces would quickly become unsanitary and uncomfortable. Broom reeds have played a vital role in maintaining cleanliness, evolving from rudimentary branches and brushes used for moving ashes and dirt to intricately designed tools made from native grasses. These brooms, often adorned with decorative weavings or fabric bindings, represent a longstanding tradition of utilitarian craftsmanship. In the Philippines, two primary types of brooms are prevalent: the walis tingting for outdoor spaces and the walis tambo for indoor and patio use. This study focuses specifically on the walis tambo, examining its cultural significance and economic impact in contemporary Philippine society.

Central to the walis tambo is tiger grass, known locally as “*tambo*”, a species of Phragmites. Beyond its use as a broom material, tiger grass plays a significant ecological role, aiding in soil erosion control and water conservation (Dechimo & Buot, 2023). It also provides a crucial livelihood opportunity for upland farmers in regions such as Benguet, Ifugao, and Mountain Province (Japz, 2009). The cultivation and harvesting of tiger grass have garnered attention from both local communities and government initiatives. Programs like the Community Livelihood Assistance Special Program (CLASP) aim to support and commercialize tiger grass production, thereby boosting the broom industry and improving rural livelihoods (Santos et al., 2022; Dacanay et al., 2024). Moreover, strategic interventions, including capacity-building initiatives and market access programs, have been instrumental in fostering entrepreneurship in this sector (De Castro & Depositario, 2021; Kürschner et al., 2016).

Despite the significant role of broom reeds, there remains a gap in understanding the full scope of their market dynamics and distribution strategies within the agricultural sector. Current research has predominantly focused on the ecological and cultural aspects of broom production but has not thoroughly examined the economic and distributional challenges faced by producers. This study aims to fill this gap by exploring the market dynamics and distribution strategies of broom reed enterprises in San Antonio, Nueva Ecija.

The structure of this paper is as follows. Section 2 reviews the relevant literature on the marketing dynamics of agricultural products, focusing on broom reed production and distribution. Section 3 details the methodology employed for conducting the empirical research, including data collection and analysis techniques. Section 4 presents the results and discussion of the findings, while Section 5 addresses the challenges and limitations faced by broom reed producers. Finally, Section 6 concludes the paper with a summary of key findings and their implications, along with recommendations for future research and industry development.

2. LITERATURE REVIEW

2.1. Promotion and cultural integration of agricultural products

The promotion of walis tambo during the feast of San Antonio Abad in San Antonio, Nueva Ecija,

exemplifies how agricultural products are integrated into cultural events. Residents highlight their broom-making through street dancing competitions with costumes adorned with tiger grass panicles, supported by government programs like One Town One Product (OTOP) (Galang, 2012). The broom reed industry serves as a primary livelihood for many families, but it faces challenges such as insufficient facilities and capital, necessitating a One-Year Strategic Development Plan to support producers (Armas et al., 2023). Similarly, the lands left idle by Mt. Pinatubo's eruptions have turned into fertile fields of tambo, celebrated through festivals and government initiatives like OTOP in Bacolor, Pampanga (Armas & Moralde, 2019).

2.2. Government support and strategic development

Government support plays a crucial role in fostering local industries. The Department of Labor and Employment allocated funds to improve the walis tambo industry in San Antonio, Nueva Ecija, recognizing its potential as an alternative livelihood (Dacanay et al., 2024). Strategic orientation significantly enhances operational performance when sustainability practices are integrated into business operations. Moreover, public sector reform under new leadership in East African countries reveals that institutionalized succession and political coalitions play significant roles in policy changes, influencing governance and reform implementation (Armas & Moralde, 2019).

2.3. Market opportunities, sustainability, and innovation

Market dynamics and opportunities for sustainable entrepreneurship among SMEs highlight the need for adaptation and innovation for long-term success (Santos et al., 2022). Effective talent management drives innovation, contributing to organizational competitiveness. The impact of artificial intelligence (AI) capabilities on achieving a sustainable competitive advantage underscores the role of technological innovation in enhancing business operations. Additionally, sustainability issues in startups are addressed using the analytical hierarchy process and quantitative strategic planning matrix to evaluate and enhance sustainability.

2.4. Financial viability and supply chain enhancement

The financial viability of business models for engineered vertical hydroponics systems for sustainable onion production in the Philippines highlights the potential of vertical farming techniques for agricultural sustainability (Armas et al., 2023). Enhancing the onion supply chain through smart contract platforms demonstrates the benefits of blockchain technology in improving supply chain efficiency (Armas et al., 2023). Bank profitability and economic growth in emerging markets are closely linked to financial stability, emphasizing the importance of stable banking environments for economic development.

2.5. Digital transformation and market competitiveness

Digital transformation plays a vital role in enhancing market competitiveness. The adoption of virtual banking in the digital economy and its benefits and challenges are explored, providing insights into effective adoption strategies (Dechimo & Buot, 2023). The role of electronic word-of-mouth in enhancing enterprise competitiveness and sustainability emphasizes the strategic importance of leveraging digital platforms for business growth. Furthermore, the development of customer experiences with ChatGPT and its implications for digital marketing satisfaction strategies highlight the potential of AI to improve customer satisfaction (Huo et al., 2020).

2.6. Research framework

This study is conducted in order to know the production and operations management of broom reed enterprises in San Antonio, Nueva Ecija.

The study aims to clarify the following aspects:

- 1) Profile of the owner: Age, gender, status, and educational background.
- 2) Profile of the enterprises: Type of ownership, years of existence, size of enterprise, and number of workers.
- 3) How may the marketing mix practices of the producers may be described in terms of: product, price, place, and promotion.
- 4) What are the problems encountered by the producers in the internal and external environment?
- 5) What are the proposed marketing programs and practices for the producers?

3. RESEARCH METHODOLOGY

3.1. Research design

This study employs a descriptive research method to examine the production and operations management practices of broom reed enterprises in San Antonio, Nueva Ecija. Descriptive research is chosen for its ability to systematically describe and identify patterns within specific variables, providing a detailed account of current practices. Data is collected through surveys and interviews with broom reed producers and analyzed using percentage and frequency distribution tools, alongside weighted mean calculations, to offer a comprehensive understanding of industry dynamics.

In addition to the descriptive method, several alternative methodologies could enhance the research. A case study approach could provide an in-depth exploration of specific enterprises, revealing unique challenges and strategies. Comparative analysis might be used to contrast practices in San Antonio with those in other regions, offering broader insights into industry performance. Experimental design could test the impact of specific interventions on production or marketing practices, while a mixed-methods approach could combine qualitative and quantitative data for a more holistic view.

3.2. Research location

This study is conducted in the municipality of San Antonio, Nueva Ecija. San Antonio has 16 barangays namely Buliran, Cama Juan, Julo, Lawang Kupang, Luyos, Maugat, Panabingan, Papaya, Poblacion, San Francisco, San Jose, San Mariano, Sta. Cruz, Sto. Cristo, Sta. Barbara, and Tikiw. It involves the registered and non-registered producers of broom reed.

3.3. Respondents of the study

The respondents of this research are the people engaged in broom reed enterprises in San Antonio, Nueva Ecija, whether registered or not. There are a total of 68 producers of broom reed in San Antonio, three of them are registered in the municipality. In the broom industry, there are owners and makers only. Makers mean that these are the people who do not have their own capital; they only work for someone who's engaged in the broom business. In San Antonio, the number of owners is 63 and the remaining five are makers only. They are given questionnaires in order for the researchers to gather the data that they need. The number of respondents is 58, it was drawn using Slovin's formula:

$$n = \frac{N}{1 + N(5\%)^2} \quad (1)$$

After the researchers identified the number of respondents, cluster random sampling was used to identify the barangays to be surveyed. Accordingly, in cluster sampling a complete list of clusters represents the sampling frame. Then, a few clusters are chosen randomly as the source of primary data. Then, after identifying the barangays randomly, stratified random sampling is used per barangay. Through this, the researchers can identify the number of respondents per barangay equally. This often improves the representativeness of the sample by reducing sampling error.

3.4. Construction and validation of the instrument

The instrument used to collect data is the survey questionnaire. The questionnaire consists of questions about the production and operations management practices of broom reed enterprises in San Antonio, Nueva Ecija.

The researchers conducted a pre-survey of several broom reed producers at random to several barangays in San Antonio where the data obtained served as a reference in the construction of the questionnaire. This was done on several occasions to familiarize more with the details of the slipper industry so it would be easier for the researchers to structure in a systematized manner the content of the questions being asked.

Furthermore, there is one researcher in the group who is a member of a family whose primary source of income is the manufacturing of slippers in San Antonio. Therefore, he has adequate knowledge of the operation of the industry and contributed a lot to the construction of the instrument.

Prior to the actual data gathering, the researchers conducted a pre-test on the selected producers in the location of the study to verify the authenticity of the instrument.

3.5. Data gathering procedure

The researchers consulted the Municipality of San Antonio to get secondary data relevant to the present study, particularly the number of broom reed manufacturers in San Antonio, and the previous activities involving the Walis Tambo Festival and of course the participants.

The researchers through the systematic construction and validation of the instrument of the study personally conducted the administration of the questionnaire.

After conducting the survey and interview, the researchers organized and analyzed the data. From the results obtained from the survey, the researchers came up with a proposed action plan for the betterment of the walis tambo industry in San Antonio, Nueva Ecija.

4. RESEARCH RESULTS

4.1. Profile of the owner

The following table presents a detailed demographic profile of the owners. This profile includes their age, gender, marital status, and educational background, providing valuable insights into the composition and diversity of the industry.

Table 1. Profile of the owner

<i>Profile of the owner</i>	<i>Frequency</i>	<i>Percentage</i>
<i>Age of the owner</i>		
18-36 years old	13	22.41%
37-56 years old	26	44.83%
57-71 years old	13	22.41%
72 years old and above	6	10.34%
<i>Gender of the owner</i>		
Male	34	58.62%
Female	24	41.38%
<i>Status of the owner</i>		
Single	7	12.07%
Married	48	82.76%
Widowed	3	5.17%
<i>Educational background of the owner</i>		
Elementary graduate	35	60.34%
High school graduate	12	20.69%
Undergraduate	11	18.97%

The demographic profile of broom reed enterprise owners in San Antonio, Nueva Ecija, as depicted in the provided tables, offers valuable insights into the characteristics of individuals engaged in this industry. The majority of broom reed enterprise owners fall within the age range of 37 years old to 56 years old, comprising 44.83% of the total respondents. This suggests that the industry is primarily dominated by individuals belonging to Generation X. The prominence of this age group may be attributed to a desire for stability and entrepreneurship typically associated with individuals in their middle years (Galang, 2012).

Notably, broom reed enterprise ownership is not limited to any specific age bracket but encompasses a diverse range of individuals across different stages of life. There is a notable gender disparity among broom reed enterprise owners, with a higher representation of males (58.62%) compared to females (41.38%). This gender skew in ownership may reflect underlying societal norms and traditional gender roles, where certain industries are perceived as more suitable or accessible to men (De Castro &

Depositario, 2021). Additionally, it may suggest potential barriers or challenges faced by women in entering and sustaining businesses in this sector (Borras, 2007).

The data reveal that a significant proportion of broom reed enterprise owners are married, accounting for 82.76% of the total respondents. This finding underscores the importance of family support and collaboration in entrepreneurship, as many owners likely rely on the collective efforts and resources of their families to establish and maintain their businesses. It also highlights the role of broom reed enterprise ownership as a means of livelihood for married couples, potentially contributing to household income and economic stability (Tan, 2021).

The majority of broom reed enterprise owners have attained only elementary education, comprising 60.34% of the total respondents. This is followed by high school graduates (20.69%) and undergraduates (18.97%), with no owners holding higher degrees. This educational profile suggests that individuals with basic schooling are prevalent in the broom reed enterprise sector. It may reflect socioeconomic factors such as limited access to higher education or the prioritization of practical skills and experience over formal qualifications in this particular industry.

Understanding these demographic trends is essential for policymakers, researchers, and industry stakeholders to develop targeted interventions and initiatives aimed at supporting and promoting entrepreneurship in the broom-reed sector. Addressing gender disparities and educational barriers can contribute to fostering a more inclusive and equitable business environment, thereby enhancing the sustainability and growth of broom-reed enterprises in the region. Furthermore, integrating advanced production methods and providing financial and technical support can significantly boost the productivity and profitability of broom-reed enterprises (Dacanay et al., 2024).

4.2. Profile of the enterprise

The following table provides a comprehensive overview of the profile of broom reed enterprises in San Antonio, Nueva Ecija. It details key aspects such as the type of ownership, years of operation, estimated assets, and workforce dynamics both during peak and off-seasons. This data offers insight into the operational scale and economic parameters of these enterprises, shedding light on their structure, stability, and capacity for growth.

Table 2 below provides a comprehensive overview of the profile of broom reed enterprises in San Antonio, Nueva Ecija. The majority of enterprises are single proprietorships, comprising 74.14% of the total, while partnerships represent 25.86%. This indicates a preference for individual ownership in the broom reed industry, which may be influenced by the desire for greater control and flexibility in business operations (Patsiaouras et al., 2015).

In terms of years of operation, a significant portion of enterprises have been in existence for 11-15 years (31.03%), indicating a level of stability and longevity in the industry. This longevity suggests that broom reed enterprises have established a sustainable market presence and resilience to market fluctuations (Galang, 2012). Such stability is essential for long-term planning and investment, which can further enhance the industry's growth and development (Yamagishi et al., 2024).

When considering estimated assets, a notable proportion of enterprises have assets ranging from PHP 3,000,001 to PHP 15,000,000 (41.38%). This financial standing highlights the potential for substantial economic impact within the local economy. Enterprises with higher asset levels are better positioned to invest in advanced production techniques, marketing strategies, and workforce development, thereby contributing to the overall growth of the broom-reed sector.

Regarding employment, during peak season, most enterprises employ 1-3 workers (31.03%), while during the off-season, a similar trend is observed, with 32.76% of enterprises employing 1-3 workers. This employment pattern reflects the seasonal nature of broom reed production, which is influenced by the availability of raw materials and market demand (De Gracia & Triviño, 2024). The reliance on a small workforce during both peak and off-season underscores the labor-intensive nature of broom reed production and the potential challenges in scaling operations (Kürschner et al., 2016).

Table 2. Profile of the enterprise

Profile of the enterprise	Frequency	Percentage
Type of ownership		
Single proprietorship	43	74.14%
Partnership	15	25.86%
Years of operation		
Less than a year	7	12.07%
1-5 years	13	22.41%
6-10 years	15	25.86%
11-15 years	18	31.03%
More than 15 years	5	8.62%
Estimated assets		
Less than PHP 3,000,000	24	41.38%
PHP 3,000,001-15,000,000	14	24.14%
PHP 15,000,001-100,000,000	14	24.14%
More than PHP 100,000,001	6	10.34%
Number of workers (peak season)		
1-3 employees	18	31.03%
4-6 employees	15	25.86%
7-9 employees	10	17.24%
10-12 employees	9	15.52%
More than ten employees	6	10.3%
Number of workers (off-season)		
1-3 employees	19	32.76%
4-6 employees	17	29.31%
7-9 employees	9	15.52%
10-12 employees	7	12.07%
More than 13 employees	6	10.34%

These data provide valuable insights into the organizational structure, operational longevity, financial standing, and workforce dynamics of broom-reed enterprises in the region. Understanding these aspects is crucial for policymakers, researchers, and industry stakeholders to develop targeted support and interventions that can enhance the competitiveness and sustainability of the broom-reed industry (Dacanay et al., 2024). Initiatives such as providing access to financial resources, technical training, and market expansion strategies can help these enterprises achieve greater economic stability and growth.

4.3. Marketing mix strategies

4.3.1. Product design strategies

The following table presents a detailed analysis of the product design strategies employed by broom reed enterprises in San Antonio, Nueva Ecija. It encompasses various sources of product design,

including owner-created designs and those influenced by external factors such as employed designers and suggestions from family or agencies.

Table 3. Product design strategies

Sources of product design	Frequency	Percentage
Origins of design		
Owner's design	19	32.76%
Through an employed designer	17	29.31%
Suggested by family and friends	9	15.52%
Suggested by agencies and other institutions	7	12.07%
Copying designs from different brands	6	10.34%
Personalized or customized design		
Yes	44	75.86%
No	14	24.14%
Product label		
Yes	46	79.31%
No	12	20.69%
Information on the label		
San Antonio	18	31.03%
Baguio City	38	65.52%
Manufacturer's name	2	3.45%

The tables above provide insights into various aspects related to product design and labeling practices among broom reed enterprises in San Antonio, Nueva Ecija.

In terms of sources of product design, it is observed that a significant proportion of designs originate from the owners themselves (32.76%), followed closely by designs through employed designers (29.31%). This indicates a high level of creativity and autonomy among owners in shaping the design of their products. Additionally, a smaller percentage of designs are suggested by family and friends (15.52%), agencies, and other institutions (12.07%), or involve copying designs from different brands (10.34%).

Regarding personalized or customized design, a majority of enterprises (75.86%) accept personalized designs, highlighting a willingness to cater to specific customer preferences and requirements. Conversely, a minority (24.14%) do not offer personalized design options, potentially due to limitations in resources or production capabilities.

When it comes to product labeling, the majority of enterprises (79.31%) incorporate labels on their products, which can serve various purposes such as branding, providing product information, and ensuring regulatory compliance. However, a notable proportion (20.69%) of enterprises do not utilize product labels, which may impact brand visibility and consumer trust.

Examining the information included in labels, it is found that a significant majority (65.52%) include the information "Baguio City", possibly indicating either the origin of the product or a marketing strategy leveraging the city's reputation. Additionally, a smaller percentage includes "San Antonio" (31.03%), while only a negligible number include the manufacturer's name (3.45%).

4.3.2. Pricing strategies

The following table provides a comprehensive overview of the pricing strategies employed by broom reed enterprises in San Antonio, Nueva Ecija. It details the various objectives behind their pricing decisions, including maximizing current profits, addressing competition, and supplementing sales of other products.

Table 4. Objectives of pricing

<i>Objective of pricing</i>	<i>Frequency</i>	<i>Percentage</i>
To maximize current profit	36	62.07%
To overcome the existing competitors	6	10.34%
To help supplement sales of other product	8	13.79%
To help stabilize prices in the industry	4	6.90%
To determine what product features would be offered	4	6.90%
To pre-empt or minimize the entry of new competitors	0	0%
To keep the support or loyalty of the resellers	0	0%
To maintain or improve market share	0	0%
Total	58	100%

The pricing strategies employed by broom reed enterprises in San Antonio, Nueva Ecija, as reflected in the table above, demonstrate a primary focus on maximizing current profit, with 62.07% of respondents indicating this as their objective. This suggests that profitability is a central concern for these enterprises, aligning with fundamental business objectives. By prioritizing profit maximization, these enterprises likely seek to optimize revenue streams and ensure financial sustainability.

Another noteworthy objective identified is to supplement sales of other products, with 13.79% of respondents indicating this aim. This strategy implies that broom reed enterprises may view their products not only as standalone offerings but also as complementary items that can enhance overall sales performance. By leveraging the sale of broom reeds to support the marketing and distribution of other products, enterprises can potentially diversify their revenue streams and enhance overall business viability.

Additionally, a smaller percentage of respondents (10.34%) cite overcoming existing competitors as an objective of pricing. This suggests a competitive orientation among some enterprises, reflecting a desire to gain market share or establish a competitive advantage through pricing strategies. By strategically positioning their products in relation to competitors' offerings, these enterprises may seek to attract customers and capture market demand.

Moreover, a minority of respondents (6.90%) indicate objectives related to stabilizing prices in the industry and determining product features offered. These objectives suggest a focus on market dynamics and product differentiation. By stabilizing prices, enterprises may aim to mitigate pricing fluctuations and enhance predictability for both consumers and industry stakeholders. Meanwhile, the consideration of product features reflects a strategic approach to product development and positioning, with pricing playing a pivotal role in determining the value proposition for customers.

Interestingly, no respondents indicate objectives such as preempting or minimizing the entry of new competitors, maintaining or improving market share, or retaining the support or loyalty of resellers. While these objectives may be important considerations for pricing strategies in other contexts, their absence in this study's findings suggests that broom reed enterprises in San Antonio, Nueva Ecija, may prioritize other objectives in their pricing decisions.

The findings presented in Table 5 shed light on the pricing practices adopted by broom reed enterprises in San Antonio, Nueva Ecija. Among the various pricing strategies, markup pricing emerges as the most commonly employed practice, with 43.10% of respondents indicating its usage.

Table 5. Pricing practice(s)

<i>Pricing practices</i>	<i>Frequency</i>	<i>Percentage</i>
Competition based pricing	21	36.21%
Psychological pricing	5	8.62%
Mark-up pricing	25	43.10%
Penetration pricing	7	12.07%
Total	58	100%

Markup pricing involves adding a predetermined percentage of profit to the cost of producing or purchasing a product to determine its selling price. This approach is straightforward and allows businesses to ensure that their pricing covers not only the cost of production but also generates a desired level of profit. By utilizing markup pricing, broom reed enterprises in San Antonio, Nueva Ecija, can effectively manage their pricing decisions, maintain profitability, and sustain their operations.

Furthermore, competition-based pricing is another prevalent practice, with 36.21% of respondents employing this strategy. This approach involves setting prices based on the prevailing market rates, ensuring competitiveness and alignment with industry standards. By adopting competition-based pricing, enterprises can effectively position their products within the market, attract customers, and capture market share.

Penetration pricing, although less common compared to markup and competition-based pricing, is still employed by 12.07% of respondents. This strategy involves setting initially low prices to penetrate the market and gain a foothold, with the potential to increase prices over time. Penetration pricing can be an effective tactic for broom reed enterprises seeking to enter new markets, attract price-sensitive customers, and stimulate demand.

Psychological pricing, although the least utilized among the identified practices, is still employed by a subset of respondents (8.62%). This strategy involves setting prices that appeal to consumers' psychological perceptions, such as using odd or charming prices (e.g., \$9.99 instead of \$10.00) to create the perception of a lower price. While less common, psychological pricing can influence consumer behavior and enhance perceived value, potentially leading to increased sales.

In interpreting these findings, it is evident that broom reed enterprises in San Antonio, Nueva Ecija, employ a variety of pricing practices tailored to their specific circumstances and objectives. The prevalence of markup pricing underscores the importance of ensuring profitability and financial sustainability, while competition-based pricing reflects the need to remain competitive within the market. Additionally, the utilization of penetration pricing and psychological pricing

highlights the strategic approach adopted by some enterprises to penetrate new markets and influence consumer behavior.

4.3.3. Distribution strategies

The table below details the distribution strategies of broom reed enterprises in San Antonio, Nueva Ecija, including their chosen methods of distribution, geographic reach, delivery channels, and terms of delivery.

Table 6. Distribution strategy

<i>Strategies</i>	<i>Frequency</i>	<i>Percentage</i>
<i>Distribution strategy</i>		
Exclusive distribution	24	41.38%
Selective distribution	25	43.10%
Intensive distribution	9	15.52%
<i>Place of distribution</i>		
San Antonio	3	5.17%
Within the province but outside San Antonio	2	3.45%
Pampanga	14	24.14%
Bulacan	15	25.86%
Metro Manila	2	3.45%
Baguio City	22	37.93%
<i>Distribution channel</i>		
Manufacturer to end users	12	20.69%
Manufacturer to retailer to end users	34	58.62%
Manufacturer to wholesalers to retailers to end users	7	12.07%
Manufacturer to wholesalers to jobbers to retailers to end users	5	8.62%
<i>Deliver their products</i>		
Owned delivery vehicle	48	82.76%
Rented	10	17.24%
<i>Term of delivery</i>		
Free delivery regardless of quantity sold	28	48.28%
Free delivery within a specific volume of goods sold	18	31.03%
Delivery expenses are borne by the buyer	4	6.90%
Delivery expenses are borne by the seller	8	13.79%

The summarized table provides insights into the distribution strategies, place of distribution,

distribution channels, delivery methods, and terms of delivery adopted by broom reed enterprises in San Antonio, Nueva Ecija.

Regarding distribution strategy, the majority of respondents opt for either exclusive distribution (41.38%) or selective distribution (43.10%), highlighting a preference for controlling distribution channels and targeting specific market segments.

In terms of the place of distribution, while some enterprises distribute their products locally within San Antonio and neighboring provinces, a significant proportion also extends their distribution networks to Pampanga, Bulacan, and even Metro Manila and Baguio City, indicating a wide geographic reach.

For distribution channels, the majority of respondents (58.62%) utilize a direct-to-retailer model, while others involve wholesalers or jobbers in their distribution process. This suggests a diverse range of approaches to reaching end consumers, tailored to the preferences and requirements of the market.

In delivering their products, a large majority (82.76%) of respondents rely on owned delivery vehicles, while a smaller percentage opt for rented vehicles (17.24%). This underscores the importance of efficient logistics and transportation infrastructure in ensuring timely and reliable delivery to customers.

Regarding the terms of delivery, a significant portion of respondents (48.28%) offer free delivery regardless of the quantity sold, while others provide free delivery within specific volume thresholds. A smaller percentage either requires buyers to bear delivery expenses (6.90%) or absorb these costs themselves (13.79%). These terms reflect the strategies employed by enterprises to attract customers, manage costs, and enhance service quality in the delivery process.

4.3.4. Promotional strategies

The table below presents the advertising practices employed by broom reed enterprises in San Antonio, Nueva Ecija, highlighting the frequency and effectiveness of various promotional methods such as word-of-mouth and social media advertisements.

Table 7. Advertising practices

<i>Advertising practices</i>	<i>Weighted mean</i>	<i>Verbal interpretation</i>
Word-of-mouth	2.60	Sometimes
Print ads (e.i., flyers, pamphlets and tarpaulins)	1.03	Never
Billboards	1.03	Never
Newspaper	1	Never
Magazines and journals	1	Never
Radio advertisements	1	Never
TV advertisements	1	Never
Social media advertisements (i.e., Facebook, Instagram, and X/Twitter)	1.34	Never
Internet blogs	1.41	Never
Use of popular endorsers	1	Never

Table 7 shows advertising practices of broom production in San Antonio, sometimes the respondents used word-of-mouth to advertise their product.

The table shows a result that most of the respondents never used print ads, billboards, newspapers, magazines and journals, radio advertisements, TV advertisements social media advertisements, Internet blogs, and the use of popular endorsers to advertise their products.

Table 8 shows the personal selling jobs of walis tambo producers in San Antonio the respondents sometimes did a house to house selling/outdoor selling.

Table 8 also shows a result that the respondents are rare in across-the-counter selling/in-store selling, salesmen employed by wholesalers and salesmen employed by manufacturers.

Table 8. Personal selling jobs

<i>Personal selling jobs</i>	<i>Weighted mean</i>	<i>Verbal interpretation</i>
Across-the-counter selling/in-store selling	2.03	Rare
House-to-house selling/outdoor selling	2.67	Sometimes
Salesmen employed by wholesalers	2.33	Rare
Salesmen employed by manufacturers	2.07	Rare

Table 9. Type of sales promotion

<i>Type of sales promotion</i>	<i>Weighted mean</i>	<i>Verbal interpretation</i>
Trade discounts	2.97	Sometimes
Quantity discounts	1.90	Rare
Free sample	2.45	Rare
Exchange and return policy	1.38	Never
Trade credit	1.66	Rare

Table 9 shows the type of sales promotion of walis tambo producers in San Antonio the respondents never used the exchange and return policy, and sometimes they used trade discounts. The table shows a result that most of the respondents are rare to use a quantity discount, free sample, and trade credit.

Table 10. Publicity programs

<i>Publicity programs</i>	<i>Weighted mean</i>	<i>Verbal interpretation</i>
Participation in the Walis Tambo Festival	1.52	Rare
Community programs (e.g., feeding programs)	1.10	Never
Scholarship programs	1.33	Never
Environmental programs (e.g., tree planting and street cleaning)	1.38	Never
Livelihood programs in the municipality	1.69	Rare

Table 10 shows publicity programs of walis tambo producers in San Antonio, the respondents are rare participants in the walis tambo festival, and livelihood programs in the municipality.

Table 10 also shows a result that the respondents are never participating in community programs (e.g., feeding programs) scholarship programs, and environmental programs (e.g., tree planting and street cleaning).

4.4. Challenges and problems encountered in the operation

Table 11 below outlines the internal problems encountered by broom reed enterprises in San Antonio, Nueva Ecija, detailing the frequency and impact of issues such as lack of funds and inadequate transport facilities.

Table 11. Internal problems encountered

<i>Internal problems encountered</i>	<i>Weighted mean</i>	<i>Verbal interpretation</i>
Lack of funds	2.97	Sometimes
High cost of inputs	2.03	Rare
Values and attitude of the workers	1.88	Rare
Inadequate transport facilities	1.62	Rare
Lack of upgraded equipments and machines	1.83	Rare
Inadequate quality management and control	1.94	Rare
Small production area	2.69	Sometimes
High rate of defective or spoiled output	2.26	Rare
Absence of promotional activities	2.09	Rare
Waste disposal and management	2.34	Rare

Table 11 shows internal problems encountered by the producers of walis tambo in San Antonio, the respondents sometimes encountered a lack of funds, and a small production area.

Table 11 also shows a result that the respondents rarely encountered a high cost of inputs, values and

attitude of the worker, inadequate transportation facilities, lack of upgraded equipment, inadequate quality management and control, high rate of defective or spoiled output, absence of promotional activities and waste disposal and management.

Table 12. External problems encountered

<i>External problems encountered</i>	<i>Weighted mean</i>	<i>Verbal interpretation</i>
Seasonal demand	2.83	Sometimes
Lack of assistance, programs and policies from the local government utility (LGU)	2.24	Rare
Unstable prices of raw materials	2.72	Sometimes
High level of competition	2.57	Sometimes
Predatory pricing by competitors	2.48	Rare
Fragmented market	1.83	Rare
Power interruptions	1.69	Rare
Limited supplies of raw materials during peak season	2.22	Rare
Lack of manpower especially during peak season	1.62	Rare
Absence of slipper producers cooperatives or organizations	1.64	Rare

Table 12 shows the external problem of the producers of walis tambo in San Antonio, the respondents sometimes encountered seasonal demand, unstable prices of raw materials, high levels of competition, and a fragmented market.

The table shows a result external that the respondents most rarely encountered a lack of assistance, programs and policies from the LGU, predatory pricing by competitors, power interruptions, limited supplies of raw materials during peak season, lack of manpower especially during peak season and absence of slipper producers cooperatives or organizations.

4.5. Proposed action plan for the agricultural industry in San Antonio

Table 13 below presents a detailed action plan designed to enhance the marketing practices of walis tambo producers in San Antonio, Nueva Ecija, with specific objectives, activities, timelines, and potential funding sources for each proposed initiative.

Main objective: To improve the marketing practices of the producers in San Antonio, Nueva Ecija.

Table 13. Action plan designed to enhance the marketing practices of walis tambo producers in San Antonio

<i>Program/Plans</i>	<i>Objectives</i>	<i>Activities/Strategies</i>	<i>Persons/Agencies involved</i>	<i>Timeline</i>	<i>Potential sources of funding/Support</i>
Product development	Improve the competitiveness of walis tambo in terms of quality and design	1. Conduct market research to identify product design trends and consumer preferences. 2. Implement product development findings. 3. Organize training workshops for producers on new designs and quality standards.	Manufacturers, LGU, DTI, design experts	Research: 3 months; Implementation and training: 6 months	DTI grants, LGU budget, private partnerships
Promotion enhancement	Increase market awareness of San Antonio's walis tambo	1. Launch an integrated marketing campaign utilizing traditional and digital media. 2. Rebrand product labeling to highlight local origins. 3. Run seasonal promotions, discounts, and loyalty programs.	Manufacturers, LGU, marketing firms	Advertising: 2 months; Rebranding: 1 month; Promotions: ongoing	Marketing grants, LGU budget, MSME support programs
Formation of multi-purpose cooperatives	Improve production and distribution efficiency through cooperatives	1. Facilitate the formation of multi-purpose cooperatives for walis tambo producers. 2. Conduct cooperative management training. 3. Set up collective purchasing agreements for raw materials to lower costs.	LGU, Municipal Agricultural Office, Cooperative Development Authority	Formation: 4 months; Recruitment: 3 months	Cooperative development funds, LGU support, DA funds
Strengthening of the annual Walis Tambo Festival	Promote the industry and the municipality through cultural engagement	1. Organize more interactive events such as walis tambo crafting competitions, workshops, and trade fairs. 2. Partner with local media for coverage. 3. Invite national stakeholders and sponsors.	LGU, manufacturers, festival organizers, media	Planning: 3 months; Event duration: 1 week	Festival grants, sponsorships, LGU, local business sponsors
Price control mechanism	Regulate pricing to avoid predatory practices and ensure fair competition	1. Establish price control guidelines with input from stakeholders. 2. Implement regular monitoring of pricing practices. 3. Create a pricing board to oversee compliance.	DTI, LGU, walis tambo manufacturers	Setup: 2 months; Monitoring: ongoing	DTI funding, LGU budget
Capacity building for digital marketing	Expand market reach through online platforms	1. Conduct workshops on digital marketing strategies (e.g., social media, e-commerce). 2. Set up online sales platforms for walis tambo products. 3. Build digital literacy among producers.	LGU, DTI, marketing firms, e-commerce platforms	Workshops: 2 months; Platform setup: 3 months	DTI digital transformation grants, private sponsors
Access to financial resources	Improve access to capital for product development and business expansion	1. Partner with microfinance institutions and government programs to provide low-interest loans. 2. Train producers in financial literacy and loan management. 3. Provide support in loan application processes.	Microfinance institutions, LGU, DTI, financial literacy experts	Partnership development: 4 months; Training: 2 months	Microfinance programs, LGU, DTI SME financing programs

Note: DTI — Department of Trade and Industry, MSME — micro, small, and medium-sized enterprises, SME — small, and medium-sized enterprises, DA — Department of Agriculture.

The proposed action plan for enhancing the walis tambo industry in San Antonio, Nueva Ecija, outlines a strategic approach to boost the sector's competitiveness and market visibility.

The plan focuses on five main areas: product development, promotion enhancement, cooperative formation, festival strengthening, and price control. Initially, product development will be prioritized

through research and training, aimed at improving quality and design with support from LGU and the DTI. To increase market awareness, the plan includes a comprehensive promotional strategy involving diverse advertising mediums, rebranding, and ongoing sales promotions. Additionally, the establishment of multi-purpose cooperatives is proposed to enhance production and distribution efficiency, supported by cooperative development funds and LGU backing.

5. DISCUSSION

The findings of this study indicate that broom reed enterprises in San Antonio are predominantly small-scale, family-owned operations. These enterprises heavily rely on traditional marketing strategies, particularly markup pricing and selective distribution, which are effective but limit their ability to scale up and reach a broader market. The dominance of markup pricing, used by 43.10% of respondents, reflects the enterprises' focus on maintaining profitability through simple, cost-plus pricing methods. This approach is common among small businesses with limited resources and access to market data, as it ensures that production costs are covered with a reasonable profit margin. However, such a strategy may restrict their ability to compete aggressively in more competitive markets where dynamic pricing or value-based pricing might be more effective.

The reliance on selective distribution, where 43.10% of respondents distribute their products through a narrow network of retailers or directly to consumers, also highlights the limited market reach of these enterprises. While this strategy allows broom reed producers to focus on specific, often loyal, market segments, it restricts their ability to expand into larger or more diverse markets. Nevertheless, the geographic expansion of broom reed products beyond San Antonio to neighboring provinces like Pampanga, and Bulacan, and even metropolitan areas such as Metro Manila and Baguio City, underscores the market potential of walis tambo products. This expansion reflects the growing demand for traditional and eco-friendly products, but it also highlights the limitations of the current distribution methods, which may hinder further growth and market penetration.

The study also reveals that the majority of broom reed producers rely on owned delivery vehicles, with 82.76% of respondents using this method for distribution. Additionally, 48.28% of respondents offer free delivery services regardless of the quantity sold, while others offer free delivery based on certain volume thresholds. These practices demonstrate a strong commitment to customer satisfaction and an understanding of the importance of convenience in attracting and retaining customers. However, they also pose financial and logistical challenges, particularly for small enterprises with limited capital. The cost of owning and maintaining delivery vehicles, combined with the provision of free delivery, can strain financial resources and reduce profit margins.

Moreover, the seasonal nature of broom reed production presents significant challenges for these enterprises. As revealed in the study, 32.76% of businesses experience fluctuations in labor demand, with fewer workers employed during off-seasons.

This seasonal cycle not only affects labor dynamics but also contributes to inconsistent cash flow and operational inefficiencies. The limited availability of raw materials during peak seasons further compounds these challenges, as enterprises struggle to meet demand without the infrastructure to store surplus materials or smooth production across the year.

Challenges such as limited access to capital and inadequate marketing infrastructure are recurring themes among the broom-reed producers in San Antonio. Many of these small enterprises face difficulties in securing financing, which limits their ability to invest in advanced marketing strategies, new product designs, or expanded production facilities. Additionally, the absence of formal marketing campaigns — evidenced by the limited use of social media, print, and broadcast advertising — hinders the ability of broom-reed enterprises to build strong brand recognition and reach new customers.

These findings align with existing literature that highlights the critical role of government support in enabling small enterprises to grow and innovate (Dacanay et al., 2024). Programs that provide financial assistance, marketing support, and training can help these enterprises overcome capital constraints and build the necessary infrastructure to expand their operations. Moreover, the need for strategic development in areas such as supply chain management, marketing innovation, and production efficiency is essential for ensuring the long-term sustainability of the broom-reed industry. Government initiatives, such as grants for equipment upgrades, technical training, and market access programs, would be beneficial in addressing the challenges faced by small-scale producers.

6. CONCLUSION

This study highlights the key marketing practices of broom reed producers in San Antonio, Nueva Ecija, with a focus on production methods, distribution channels, and pricing strategies. The research identifies the dominance of small-scale enterprises that utilize markup pricing and selective distribution to meet demand in both local and metropolitan markets. Notably, tiger grass or “tambo” plays a central role in the industry's economic and ecological impact. The findings reveal that while the industry has extended its geographic reach, challenges such as limited capital, inadequate marketing infrastructure, and logistical difficulties constrain further growth.

The study underscores the critical need for government support and sustainable development initiatives to enhance the competitiveness and long-term viability of the broom reed sector. Moreover, it calls for interventions that can improve production efficiency and marketing reach, addressing key barriers faced by small enterprises. Future research should explore comparative analyses across regions and alternative methodologies to better understand and address industry-specific challenges, further contributing to the sustainability and economic growth of the sector.

However, this research is limited in scope as it focuses solely on San Antonio, Nueva Ecija, and does not account for variations in market dynamics, production practices, and challenges in other regions.

REFERENCES

- Armas, K. L., & Moralde, R. R. (2019). Production operations management of broom reed industry in the Philippines. *International Journal of Advanced Engineering, Management and Science*, 5(1), 63-72. <https://doi.org/10.22161/ijaems.5.1.9>
- Armas, K. L., Bondoc, B. C., & La Penia, R. L. (2023). Enhancing onion supply chain using the smart contract platform: A meta-analysis. *Journal of Applied Engineering and Technological Science*, 5(1), 622-634. <https://doi.org/10.37385/jaets.v5i1.2447>
- Borras, S. M., Jr. (2007). 'Free market', export-led development strategy and its impact on rural livelihoods, poverty and inequality: The Philippine experience seen from a Southeast Asian perspective. *Review of International Political Economy*, 14(1), 143-175. <https://doi.org/10.1080/09692290601081426>
- Cabangbang, M. V., Baradas, F., & Cabrera, A. (2007). *Developments in Agroforestry research*. Philippine Council for Agriculture, Forestry and Natural Resources Research and Development (PCAARRD).
- Cayetano, E. L. G., Cabading, R. M., Cabardo, S. S., Cruz, C. M. B. D., & Armas, K. L. (2023). Factors affecting productivity and challenges encountered to Rice Competitiveness Enhancement Fund (RCEF) Mechanization Program among farmers' cooperative and associations (FCAs) of Guimba. *International Journal of Advanced Engineering, Management and Science*, 9(12), 21-25. <https://doi.org/10.22161/ijaems.912.5>
- Dacanay, A. O., Gernalin, B. M., Miguel, H. R., Cunanan, J. M. V., & Armas, K. L. (2024). Leveraging lending institutions for sustainable growth: Implications for sales growth and profitability in small and medium enterprises. *International Journal of Advanced Engineering, Management and Science*, 10(5), 088-095. <https://doi.org/10.22161/ijaems.105.4>
- De Castro, M. M. E., & Depositario, D. P. T. (2021). An innovative ambidexterity typology of Filipino agripreneurs and its implications for regional development policies. *Philippine Journal of Public Policy: Interdisciplinary Development Perspectives*, 95-136. <https://cids.up.edu.ph/an-innovative-ambidexterity-typology-of-filipino-agripreneurs-and-its-implications-for-regional-development-policies/>
- De Gracia, E. B., & Triviño, J. B. (2024). Pricing strategies and production capacity of Buffalo Dairy Hub: Key determinants of reseller customer experience amid COVID-19. *Philippine Academy of Management E-Journal*, 7(2), 145-157. <https://archium.ateneo.edu/leadership-and-strategy-faculty-pubs/42/>
- De, H. K., & Pandey, D. K. (2014). Constraints to women's involvement in small scale aquaculture: An exploratory study. *International Journal of Agricultural Extension*, 2(1), 81-88. <https://www.researchgate.net/publication/304396915>
- Dechimo, A. A., Jr., & Buot, I. E., Jr. (2023). Plant and other forest bioresource utilization by local communities of Northern Negros Natural Park, Negros Island, Philippines. *Philippine Journal of Science*, 152(2), 635-651. <https://www.researchgate.net/publication/372229528>
- Galang, A. (2012, January 22). Nueva Ecija town features 'tambo'. *Philippine Daily Inquirer*. <https://newsinfo.inquirer.net/133997/nueva-ecija-town-features-tambo>
- Huo, D., Chen, Y., Hung, K., Song, Z., Guan, J., & Ji, A. (2020). Diamond model and the export competitiveness of the agriculture industry from emerging markets: An exploratory vision based on a spatial effect study using a genetic algorithm. *Economic Research-Ekonomska Istraživanja*, 33(1), 2427-2443. <https://doi.org/10.1080/1331677X.2019.1679212>
- Japz. (2009, June 3). Propagation, management and harvesting of tiger grass farming in the highlands. *Blogger.com*. <https://goldenplants.blogspot.com/2009/06/propagation-management-and-harvesting.html>
- Kupa, E., Adanma, U. M., Ogunbiyi, E. O., & Solomon, N. O. (2024). Cultivating a culture of safety and innovation in the FMCG sector through leadership and organizational change. *International Journal of Management & Entrepreneurship Research*, 6(6), 1787-1803. <https://doi.org/10.51594/ijmer.v6i6.1165>
- Kürschner, E., Baumert, D., Plastrotmann, C., Poppe, A.-K., Riesinger, K., & Ziesemer, S. (2016). *Improving market access for smallholder rice producers in the Philippines*. Centre for Rural Development (SLE).
- Matunhay, L. M., Castillano, G. D., Datuin, L. R. E. G., Neri, J. S., & Serot, L. M. (2022). Value chain analysis: Small-scale Tahiti broom production in Compostela, Davao De Oro. *International Journal of Social Science and Human Research*, 5(8). <https://doi.org/10.47191/ijsshr/v5-i8-35>
- Patsiaouras, G., Saren, M., & Fitchett, J. A. (2015). The marketplace of life? An exploratory study of the commercialization of water resources through the lens of macromarketing. *Journal of Macromarketing*, 35(1), 23-35. <https://doi.org/10.1177/0276146714538454>
- Santos, K. D., Musni, M. E. D., Rivera, E. J. G., Salagubang, M. A., Tadianan, J. S., & Santos, M. D. (2022). Relationship between entrepreneurial marketing and return-on-investment performance of the reed broom suppliers and manufacturers in San Antonio, Nueva Ecija. *International Journal of Advanced Engineering, Management and Science*, 8(12). <https://doi.org/10.22161/ijaems.812.5>
- Tagalog Lang. (n.d.). *Filipino brooms*. <https://tagaloglang.com/filipino-brooms/>
- Tan, G. N. D. (2021). A business-model approach on strategic flexibility of firms in a shifting value chain: The case of coffee processors in Amadeo and Silang, Cavite, Philippines. *Global Journal of Flexible Systems Management*, 22(1), 17-28. <https://doi.org/10.1007/s40171-020-00255-5>
- Yamagishi, K., Gantalao, C., & Ocampo, L. (2024). The future of farm tourism in the Philippines: Challenges, strategies and insights. *Journal of Tourism Futures*, 10(1), 87-109. <https://doi.org/10.1108/JTF-06-2020-0101>