ISSN (Online): 2455-3662
EPRA International Journal of Multidisciplinary Research (IJMR) - Peer Reviewed Journal
Volume: 12| Issue: 4| April 2026|| Journal DOI: 10.36713/epra2013 || SJIF Impact Factor 2026: 8.753 || ISI Value: 1.188

THE MARKET POTENTIAL OF NIPA FRUIT WINE

Mylyn T. Ayuban, Maria Donna F. Buates
Bohol Island State University, Philippines

Chapter 1
THE PROBLEM AND ITS SCOPE
INTRODUCTION
Rationale

Globally, the high level of demand among consumers for innovative alcoholic beverages has created opportunities for niche products like fruit-based wines. Nipa fruit, which originates from the nipa palm (*Nypa fruticans*), provides distinctive flavor characteristics and has yet to be recognized as an essential raw material for wine. Considering the increasing interest in organic, indigenous, and health-oriented alcoholic drinks, it is very timely and urgent to determine the market opportunity for nipa fruit wine. Recent research suggests that consumers are increasingly looking for new tastes and unique beverages (Smith & Johnson, 2021) and that regional specialties will find their way into other markets due to this demand.

This study was done as the conventional formulation of nipa wine was from nipa sap known as lambanog, which limited the diversity and potential of nipa-based alcoholic beverages in the Philippines. This was a rare step as this study used nipa fruit as raw material for producing the wine, creating a novel product that had not been widely explored before. Sap-based wine is often preferred, this study focused on nipa fruit wine to provide a unique flavor profile and explore unexploited market opportunities. This new strategy targeted the demand for increased diversification of products in the local beverage sector and promoted sustainable use of nipa resources, economically benefiting rural communities as well as preserving cultural heritage.

Furthermore, the functional properties of nipa fruit, including its antioxidant content, reflect good consumer interest in health-promoting products (Lopez et al., 2022). By identifying market potential, we will define target demographics and forecast demand, all of which can influence local producers and investors. States in East Asia possessing abundant nipa palms have relatively undeveloped agro-industrial resources that can be utilized as added-value products, such as nipa fruit wine (Tan & Wong, 2023). This is in line with sustainable development aims to harness indigenous resources to drive rural economies (United Nations, 2020). Understanding these factors will be of great importance for stakeholders in agriculture, food processing, and beverage industries to spike economic development and diversification of products.

Literature Background

Nipa, or Nypa fruticans, is a type of palm native to the coasts and estuarine regions in Southeast Asia, including the Philippines. It flourishes in brackish water and mangrove marshes and is readily distributed in many coastal provinces. Nipa has different names in the Philippines depending on the local area of the country, reflecting its cultural importance and widespread distribution. Filipino terms include "Nipa," but in some regions it is called "Niyog-niyogan," emphasizing its resemblance to coconut palms ("niyog"), “Laksoy” in Mindanao, “Lambanog” in Luzon Province, “Banikolkol” in Bicol Region, “Pauroy” in Siargao, and “Lipso” in Palawan. There might be other dialectal terms in other ethnolinguistic groups, a reflection of the plant’s integration into indigenous lives.

Nipa was traditionally prized because of its many uses: its leaves are used to thatch and to weave; its sap provides vinegar, sugar (tuba or palm wine), and now increasingly products such as nipa fruit wine. As important as it is, nipa has had a limited share in development for commercial drinks including fruit wine, thus creating a unique, local alcoholic beverage with health benefits such

ISSN (Online): 2455-3662
EPRA International Journal of Multidisciplinary Research (IJMR) - Peer Reviewed Journal
Volume: 12| Issue: 4| April 2026|| Journal DOI: 10.36713/epra2013 || SJIF Impact Factor 2026: 8.753 || ISI Value: 1.188

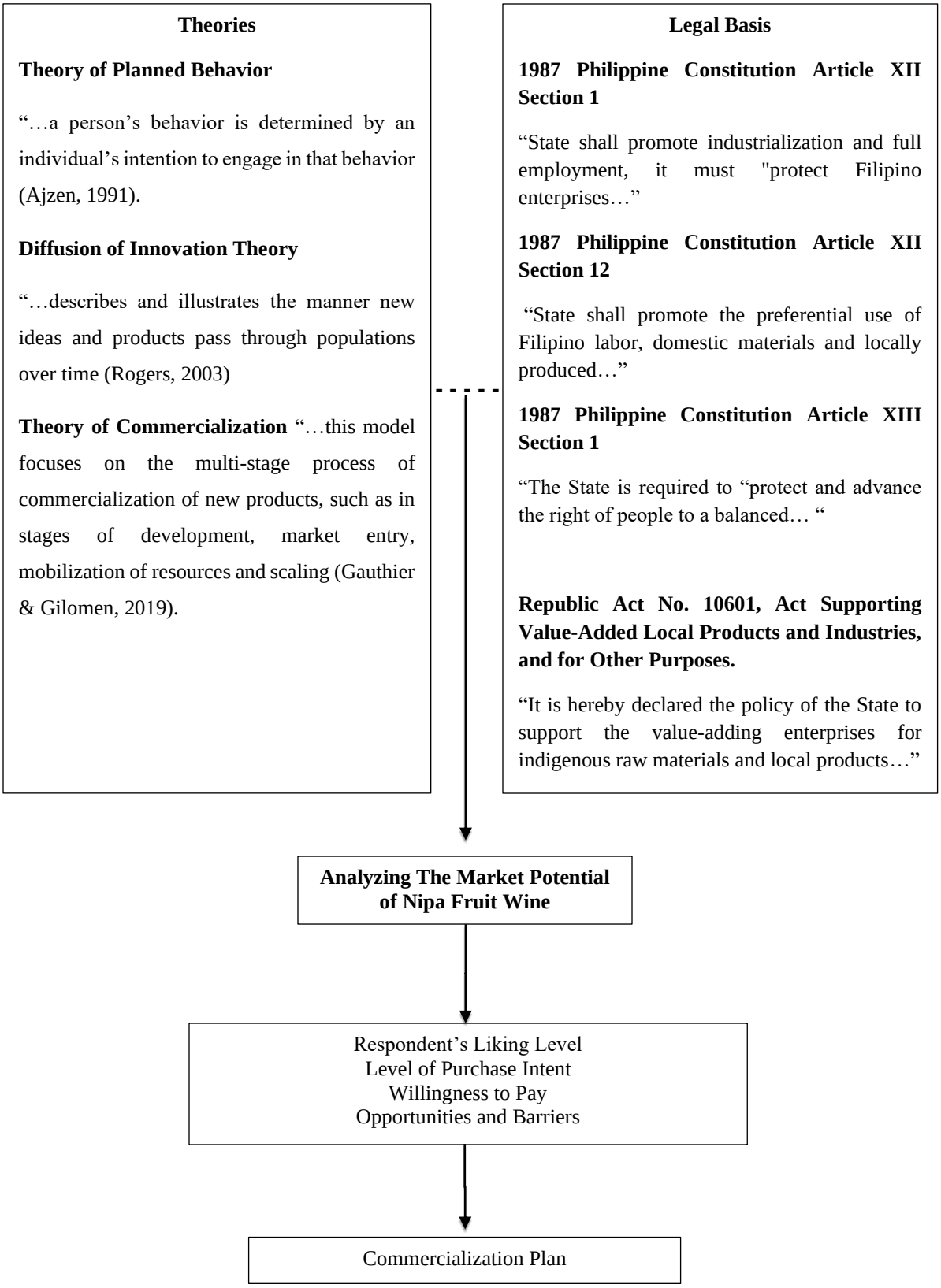


Figure 1. Theoretical and Conceptual Framework

ISSN (Online): 2455-3662
EPRA International Journal of Multidisciplinary Research (IJMR) - Peer Reviewed Journal
Volume: 12| Issue: 4| April 2026|| Journal DOI: 10.36713/epra2013 || SJIF Impact Factor 2026: 8.753 || ISI Value: 1.188

as antioxidant properties, which offer potential. Nipa fruit wine cultivation contributes to sustainable rural development by adding economic value to local agro-industrial resources and preserving cultural heritage.

An earlier work "Effects of Fermentation Factors on Nipa Fruit (Nypa fruticans) Wine" (Hilot, Russell et.al, 2025) studied the effects of an array of fermentation parameters and condition upon the quality aspects. They concentrated on improving the production process by assessing elements that impact wine appearance, aroma, tastes, mouthfeel and aftertaste. Although the research added significantly some technical understanding of fermentation and paved way for a promising use of nipa fruit as potential raw materials for wine production, it only focused on product variables and sensory attributes.

Building upon this, the current study moves from process optimization and development into consumer perception and potential marketability. This study aims to address the mismatch between production-level feasibility and consumer-level acceptability of nipa fruit wine by assessing its market potential which highlights the potential contribution of this research toward making nipa fruit wine a competitive local product.

This study was anchored in the Theory of Planned Behavior (TPB) developed by Ajzen (1991) and helps to lay a foundation for studying consumer intention to adopt new products such as nipa fruit wine from fruit. According to TPB, a person's behavior is determined by an individual's intention to engage in that behavior based on three aspects: attitude toward the behavior, subjective norms, and perceived behavioral control (Ajzen, 1991).

For nipa fruit wine, one of the key predictors of consumer willingness to try and purchase alcoholic beverages is to understand these elements. Attitude captures consumers' views of nipa fruit wine acceptance of peers or community, and perceived behavioral control concerns ease of access or perceived affordability and availability. Through the application of the TPB, marketers can examine the key determinants influencing consumers' intentions, subsequently establishing the strategies needed to drive consumer acceptance throughout the market (Ajzen, 1991).

Additionally, social acceptability on drinking fruit wine and attitude towards cultural acceptability in the market may influence consumers' intentions to consume nipa fruit wine regularly. Perceived behavioral control, availability and affordability relative to other local fruit wines are also affecting the consumer's ability and willingness to adopt nipa fruit wine as their preferred choice.

In addition to Theory of Planned Behavior, Diffusion of Innovation Theory (Rogers, 2003) describes and illustrates the manner new ideas and products pass through populations over time. In the theory proposed by Rogers, adoption happens via a process in which innovators and early adopters first sample a given product.

With nipa fruit wine, an analysis of the diffusion curve can indicate the speed at which this product penetrates the market, how information spreads, and which communication channels should be key channels of getting consumers to adopt the product. To provide valuable direction for the positioning of nipa wine within target markets in a culturally and socially acceptable manner (Rogers, 2003).

The Theory of Commercialization is a great framework through which to analyze how innovations such as nipa fruit wine move from intellectual to marketable. Based on this process, this model focuses on the multi-stage process of commercialization of products, such as in stages of development, market entry, mobilization of resources and scaling (Gauthier & Gilomen, 2019).

Commercialization success relies on awareness of market demand, consumers' liking level, and product's strategies to create competitive advantage (Jin et al., 2021). For nipa fruit wine, the process of commercialization was a matter not only of product development to serve local markets but also of meeting production demands according to market expectations and regulatory frameworks. Studies have shown the effect of successful supply chain management or marketing innovation, along with product quality, have a great effect on how effective a corporation will be (Kumar et al., 2020).

Additionally, consumer education and clever branding can increase the acceptance and willingness to pay for innovative products in niche markets with strong cultural connections like nipa-based alcoholic beverages in rural and urban Filipino markets (Nguyen et al., 2022). Therefore, the Theory of Commercialization assists all stakeholders—producers and the policy makers alike—to establish bottlenecks and opportunities for the promotion of nipa fruit wine growth and sustainability.

Furthermore, the commercialization of nipa fruit wine rests on firm constitutional ground under the 1987 Philippine Constitution which provides that Filipino industries shall be protected, promoted, and developed in a manner that secures to itself the health and safety of the public. Article XII, Sec. 1 that states:

The State shall promote industrialization and full employment, it must "protect Filipino enterprises against unfair foreign competition and trade practices". This protection is intended to safeguard Filipino producers and consumers from harmful practices like a flood of low-quality products.

The researcher used this article in the study because it identifies an ongoing key government action that is aimed at protecting local businesses and jobs. Because the study focuses on nipa fruit wine, an item produced by Filipino farmers and producers, it is important to understand how laws help them to compete in a fair

ISSN (Online): 2455-3662
EPRA International Journal of Multidisciplinary Research (IJMR) - Peer Reviewed Journal
Volume: 12| Issue: 4| April 2026|| Journal DOI: 10.36713/epra2013 || SJIF Impact Factor 2026: 8.753 || ISI Value: 1.188

way in the market. It also says that the government wants to prevent foreign rivals from entering the region, which might sell inexpensive and substandard goods.

Such protection is important because it allows local nipa wine makers to grow their business without being pushed out by these unfair practices. It enables consumers to get safe and premium items made in the Philippines. This article establishes a basis for the study as it proves that there are laws and measures available promoting the development of nipa wine, providing relevance and anchoring in the country's legal and economic context.

Another section that supports this study is the Article XII; Section 12 of the Philippine Constitution explicitly mandates that: The State shall promote the preferential use of Filipino labor, domestic materials and locally produced goods, and adopt measures that help make them competitive**.** These provisions were highly relevant to the study because nipa fruit wine is a product based largely on domestic raw materials and labor.

The state thus establishes a climate that allows nipa wine producers to compete fairly against imported products and promotes industrial growth through a focus on Filipino labor and domestic materials. Also, with this article's encouragement to promote locally produced goods, the consumer will feel a taste, and pride, in indigenous products like nipa fruit wine. That not only sustains farmers / wine makers, but it also fuels rural development and job creation.

This constitutional provision was therefore very important as it advocates supporting and investing in local products, which can further increase the potential of the market for nipa fruit wine, both at home and potentially globally.

In addition, the study also anchored to the 1987 Philippine Constitution Article XIII Section 1. It stated that, the State is required to "protect and advance the right of people to a balanced and healthful ecology in accord with the rhythm and harmony of nature".

Pursuant to this constitutional mandate, it is essential for all these products to conform to certain quality and safety criteria to ensure the protection of human health and life as well as to prevent consumers from being misled or subjected due to such products. The researcher connects this law as they say there should be sustainable methods to harvest nipa fruits. Because nipa palms thrive in fragile environments in the coast and wetlands, protection of these natural surroundings is necessary to have long-term production availability for raw materials such as nipa wine.

Through compliance with the constitutional guidance, the author proposed that sustainable nipa wine production could contribute to the protection of ecosystems and livelihoods locally to marry development with ecological conservation. The study highlighted how adherence to legal frameworks ensured responsible resource management. Furthermore, it demonstrated that community involvement was essential in achieving both economic growth and environmental sustainability.

This research adds important empirical knowledge on the quality of a product, its safety and its acceptability to consumers through transparency and health awareness in the alcoholic beverage industry. Thus, these results underline the need to enforce Art XIII, Sec 1: through scientific evaluation of nipa fruit wine defending the constitutional right to health. In the end, the findings will help to inform policy and regulation geared toward preventing harm to consumers and encouraging responsible product growth in this space.

Another legal basis for this study in market possibilities of nipa fruit wine is the Republic Act No. 10601. An Act Supporting Value-Added Local Products and Industries, and for Other Purposes.

> **It is hereby declared the policy of the State to support the value-adding enterprises for indigenous raw materials and local products, which redound to the development of the countryside and the improvement of socio-economic conditions of local producers and micro, small, and medium entrepreneurs.**

In relation, this was particularly applicable to the study on the market prospects of nipa fruit wine as it sets a legal basis for development and promotion in the value-added or indigenous produce area. This legislation is meant to provide smaller scale producers with technical support, marketing assistance, and other tools to make their products more effective and competitive in both global and domestic markets (Department of Trade and Industry, 2014).

Since nipa fruit wine is a Filipino classic which uses local fruits and natural resources, RA 10601 will help the industry to develop by granting the needed access to the resources and programs that may assist in developing product and market. Therefore, the Act provides the context for this study to concentrate on exploring possibilities for the growth of the nipa wine industry within the context of a national mandate to stimulate rural development and sustainable livelihoods available to Filipino wineries.

Furthermore, a substantial legal infrastructure relevant for the nipa fruit wine investigation stemming from the Food Safety Act of 2013 (Republic Act No. 10611).

> **It is hereby declared the policy of the State to protect the interest and promote the general welfare of the public by guaranteeing safe food for the Filipino people and food products traded in the country. This Act seeks to strengthen the food safety regulatory system of the Philippines to protect consumers from foodborne illnesses and to facilitate market access, both domestic and international, of locally produced food products.**

ISSN (Online): 2455-3662
EPRA International Journal of Multidisciplinary Research (IJMR) - Peer Reviewed Journal
Volume: 12| Issue: 4| April 2026|| Journal DOI: 10.36713/epra2013 || SJIF Impact Factor 2026: 8.753 || ISI Value: 1.188

This act was designed to improve the food safety in the country, protect public health and consumer interest by establishing a unified food safety regulatory system for all stages of food production, processing, packaging and distribution. The evaluation of the potential market for nipa fruit wine was directly relevant to objectives set out in this legislation on several fronts.

For one, it mandates that all food and beverage items to which nipa fruit wine applies as an alcoholic beverage comply with safety regulations for the protection of consumers. Such data is essential in establishing that nipa fruit wine meets or exceeds requirement for acceptance by the regulatory authorities.

In addition, the Republic Act No. 10611 encouraged the adoption of risk-based food safety management systems like Good Manufacturing Practices (GMP) and Hazard Analysis and Critical Control Points (HACCP). The tasks of the researcher may provide essential sensory and quality points in the process for preparation of nipa fruit wines, which will facilitate the producers to take a pragmatic approach in implementing an effective control scheme regarding safety control based on Act.

Moreover, to be able in this food-to-beverage conversion to consolidate its place within the local production of alcoholic beverages, nipa fruit wine would also have to comply with food safety and quality standards provided under the Food Safety Act and monitored by the Philippine Food and Drug Administration (FDA). The findings of the present study may provide an important document for compliance, and this could help in offering market acceptance to small–medium-scale nipa fruit wine producers.

Finally, the Act encourages local industries to innovate and develop within the framework of sustainability. To assess this native under-utilized resource, the researcher evaluates its commercial potential in terms of safety. Such an analysis has the power to ignite local entrepreneurship and promote agricultural and economic growth in a country.

The Philippine government and private segments have increasingly been favoring the commercialization of local high-value and innovative agriculture products that stimulate rural development and sustainability. Projects that are promoting the added value of local crops like nipa palm can leverage on its success in turning raw materials into commercially viable commodities (Department of Agriculture, 2019). Both the regulatory guidance and the market linkage support offered through these programs can address some of those challenges, production capacity, consistency, quality control and network distribution issues.

Commercialization difficulties with high production costs, low consumer awareness and competition against imports or established brands (Garcia & Santos, 2022). Therefore, strategic marketing may serve to bring out the identity of nipa Fruit Wine as either a novel, premium or health-beneficial add-on, thereby enhancing its marketability.

Recent studies had shown that the growing consumer preference for natural and health-friendly fruit products will greatly bolster the market potential of nipa fruit (Smith & Lee, 2022). Moreover, production for expected increased demand must be supplemented with efficient integration with the supply chain and a greater degree of harvesting efficiency (Garcia, Perez, & Santos, 2023).

Just as salient were helpful agricultural policies and export facilitation schemes that bring nipa fruit to a stage of competitive success in the domestic and global space (Johnson, 2021). Given nipa palm's ecological value in coastal environments, sustainable farming practices should be adopted to develop sustainable nipa palm for its long-term viability on the market (Nguyen, Le, & Pham, 2020).

Moreover, market entry strategies that focus on organic certification and fair-trade labeling could also act as important ingredients for distinguishing nipa fruit from major players in the global market for fruit (Martinez & Taylor, 2023). The eco-friendly farming method implementation and tailored selling to health-conscious consumers is the decisive point in extracting the maximum market potential of the nipa fruit wine.

Taking together, these theoretical and legal frameworks form a solid basis for the current research to explore market potential of nipa fruit wine as determined by comparative sensory profiling practice with existing local wines. Through incorporating consumer behavior information with sensory science and regulatory compliance, the study not only aims to assess when a product can be accepted but also has the potential for enhancing public health protection, consumer rights and local industry through marketability potential.

In sum, prior research of nipa (Nypa fruticans) have demonstrated that nipa has long been acknowledged as a significant coastal plant in the Philippines and is highly appreciated for its different traditional activities and economic value. Previous empirical research in this area has been limited to the sap of nipa as the fermented for alcohol such as lambanog, leaving little to no investigation into the nipa fruit. As found in their review, the use of the nipa fruit for wine development was an innovative idea with unfulfilled potential to contribute to the production of more regional alcoholic products as well as to sustainable rural development.

THE PROBLEM

Statement of the Problem

The study aimed to analyze the market potential of nipa fruit wine in the first congressional district in Bohol for the year 2025-2026. Specifically, it answered the following questions:

1. What is the demographic profile of the participants in terms of:
    1.1. age;
    1.2. gender;

ISSN (Online): 2455-3662
EPRA International Journal of Multidisciplinary Research (IJMR) - Peer Reviewed Journal
Volume: 12| Issue: 4| April 2026|| Journal DOI: 10.36713/epra2013 || SJIF Impact Factor 2026: 8.753 || ISI Value: 1.188

1.3. nationality;
1.4. monthly income; and
1.5. frequency of wine consumption?

2. What are the measured sugar content and alcohol level of nipa fruit wine?
3. What is the consumer liking level of nipa fruit wine?
4. Is there a significant difference in the consumer's liking level based on demographic profile?
5. What is the level of purchase intent and willingness to pay (WTP) among consumers for nipa fruit wine?
6. What are the perceived opportunities and barriers to the commercialization of nipa fruit wine based on survey data?
7. What commercialization plan may be proposed from the result of the study?

Statement of Null Hypothesis

There is no significant difference in the consumer liking level for nipa fruit wine when respondents are grouped according to their demographic profile.

Significance of the Study

This study were conducted to benefit the following:

Producers. This study contributes to the understanding of sensory quality and marketability of nipa fruit wine. It helps production, consumer preferences and market opportunities grow when capital becomes more profitable.

Consumers. Provides unbiased sensory and quality information to help make purchasing decisions. Encourages responsible choices and knowledge of local alcoholic beverages.

Government and Regulatory Agencies. Provides a scientific basis to ensure food safety, quality control and local industry promotion. Supports evidence-based policy efforts in accordance with the Food Safety Act of 2013 and constitutional health powers.

Academic and Research Community. Enriches research areas of sensory evaluation, consumer behavior and product development for local wines. Graduates will facilitate advanced studies and innovation in the local food industry.

Agricultural Sector and Local Farmers. It will increase the demand for nipa raw materials and will be to the advantage of farmers and environment. Diversifying income helps promote rural economic development.

Local Economy and Tourism Industry. Promotes local economic growth and tourism by providing one-of-a-kind, regional products. Encourages niche markets and cultural identity.

BISU Administration. The study's findings may inspire the administration to employ the product for university extension programs and entrepreneurial school ventures, particularly at Bohol Island State University. Supports enhancing the entrepreneurial and products to market potential of local produce such as Nipa fruit wine.

Community. Promotes local production and encourages community participation, leading to pride in homegrown resources. Bringing communities closer together enhances quality of life, stimulates community-building economy.

Future Researchers. Serves as basis and methodological framework for further research on nipa fruit wine and other indigenous food products. It also prompts future study on sensory science, consumer preference s, product innovation and food safety compliance.

RESEARCH METHODOLOGY

Design

This study employed a descriptive–analytical quantitative research design using a cross-sectional survey to assess the market potential of nipa fruit wine in the First Congressional District of Bohol particularly in Tagbilaran City and Panglao Bohol.

A descriptive–analytical quantitative research design was selected for this study as researchers needed to make a systematic descriptive analysis on consumer perceptions and behavior of nipa fruit wine. Based on a cross-sectional survey, the author can record a snapshot of market demand and consumer preferences at a specific point in time, ensuring that the data reflects current trends.

The quantitative aspect of the study allows the use of statistical instruments to objectively assess such variables as awareness, acceptance, and purchase intentions that are essential to assess the market potential of the nipa fruit wine. Picking out an area that is defined by geography provides even more information that needs to be applied in every possible fashion to the local producers and marketers.

Moreover, collected directly from prospective consumers through a survey increases the credibility of the findings. This integration between descriptive and analytical methods not only serves to quantify demand but also highlights those factors critical to the consumer decision, such as price and flavor preferences, as well as the critical nature of the process for product development and marketing strategies.

Environment

The market potential of nipa fruit wine chose the First Congressional District of Bohol, particularly in Tagbilaran City and Panglao Bohol, selected bartenders, both foreign and local consumers, and wine experts, exploring market potential for the of nipa fruit wine. As the provincial capital and an increasingly urbanized area, Tagbilaran City is home to diverse and developing populations with diverse preferences and awareness of products. Serving as a commercial and tourism center, it opens

ISSN (Online): 2455-3662
EPRA International Journal of Multidisciplinary Research (IJMR) - Peer Reviewed Journal
Volume: 12| Issue: 4| April 2026|| Journal DOI: 10.36713/epra2013 || SJIF Impact Factor 2026: 8.753 || ISI Value: 1.188

doors where products like nipa fruit wine can be introduced to both residents and tourists.

On the other hand, Panglao area, renowned for high tourism and cultural heritage, hosts regular tourists looking for a novel and authentic, hence an increase in the demand for native drinks such as nipa fruit wine. These two spaces work in conjunction as an active market environment that may be used to gauge not only consumer activity of the target community, but also tourists' demand, thereby providing a full view of the likelihood of success and acceptance of nipa fruit wine as a viable option for the district.

Participants

In this study, purposive sampling was used to select 100 participants who could provide accurate information about the research. These participants included 25 bartenders, 35 local consumers/tourists, 25 foreign consumers/tourists, and 15 wine producers/experts. This selection was based on criteria that include knowledge of the research issue, as well as the person's capacity and willingness to assess the new product.

Matrix of Respondents

No.	Respondents	Number of Respondents	Total
1	Bartenders	25	25
2	Local Consumers/Tourist	35	35
	Foreign Consumers/Tourist	25	25
3	Wine producers/Experts	15	15
Total		**100**	**100**



Figure 2: Research Locale Map

Instrument

To collect information on the market potential of nipa fruit wine, the researcher employed a structured survey questionnaire as the main tool of the study. The questionnaire included five sub-sections including demographic profile, consumer liking levels, purchase intent, perceptions of opportunities and barriers, and suggestions for commercialization. It included both closed-ended questions consisting of Likert scale answers and open-ended questions to allow for more in-depth feedback to be documented.

The instrument was created to gather relevant quantitative data for a wide range of respondents to include consumers, bartenders, and wine producers in the First Congressional District of Bohol. The questionnaire was conducted to verify clarity and reliability prior to the application of the instrument to respondents. In general, it facilitated the orderly gathering of relevant information to the study's objectives.

Procedure

Phase I. Approval of the Study and Preparation of the Questionnaire

The researcher obtained approvals from the research adviser, campus director, and dean of the School of Advanced Studies. Formal permission was also requested in letter from the Mayor of Tagbilaran City and Panglao, specifying the study's purpose. Relevant literature was reviewed to guide questionnaire design which was then developed and prepared questionnaire for market potential assessment, including the 4-point hedonic scale.

Phase II. Selection and Preparation of Wine Samples

ISSN (Online): 2455-3662
EPRA International Journal of Multidisciplinary Research (IJMR) - Peer Reviewed Journal
Volume: 12| Issue: 4| April 2026|| Journal DOI: 10.36713/epra2013 || SJIF Impact Factor 2026: 8.753 || ISI Value: 1.188

The researcher selected nipa fruit wine samples carefully. All samples were stored and handled properly prior to distribution to participants to ensure quality and authenticity. This allowed participants to reference the product accurately, supporting reliable estimation of its market potential. The rigorous process ensured the data gathered were reliable and applicable.

Phase III. Laboratory Testing

The researcher conducted laboratory test to evaluate the sugar and alcohol content of the nipa fruit wine samples. Standardized methods were used for accurate measurement. Results were significant for assessing product quality and characteristics which are critical for determining marketability and compliance with industry standards. The samples were verified to meet necessary requirements.

Phase IV. Selection and Orientation of Participants

The researcher conducted the selection and orientation for respondents who participated in the study. The participants were purposively selected based on the research objectives, including bartenders, local and foreign consumers, and wine producers within the First Congressional District of Bohol. Respondents were briefed about the study purpose and significance of their participation, with assistance regarding how the survey questionnaire was to be filled out. This orientation ensured that the participants clearly understood their roles and provided informed and thoughtful responses, thereby enhancing the quality and reliability of the data gathered in the study.

Phase IV. Administering of Questionnaire

During the administration of the questionnaire, the researcher sent the questionnaire to the sampled respondents namely bartenders, local and foreign consumers, and wine producers. Instructions were made explicit to ensure that the respondents were comprehensively understood and could respond to all questions. The researcher facilitated the process by addressing questions and concerns raised by the participants so that honest and thoughtful answers can be obtained. This prudent administration maximized responses and resulted in comprehensive and valid data required to determine the market potential of nipa fruit wine.

Statistical Treatment

In this study descriptive and inferential statistics were performed to analyze the data. Respondents' demographic characteristics and ratings pertaining to nipa fruit wine market prospects were summarized in frequencies and percentages. Participants' liking level toward nipa fruit wine in terms of taste, aroma, appearance and overall experience was calculated as weighted means of different factors that were evaluated to obtain an average liking level. The results were analyzed by the following:

Scale	Descriptive Rating	Interpretation
4	Like Very Much	Strong Positive Liking
3	Like	Moderate Liking
2	Dislike	Moderate Disliking
1	Dislike Very Much	Strong Negative Liking

The researcher gathered, tallied and analyzed the data, using the statistical treatments necessary to interpret it properly. Furthermore, the use of a modified 4-point Hedonic scale to determine the product's perception level on opportunities and barriers was employed with the result also interpreted according to the scale's structure. Such analyses presented broad based understandings of consumers' attitudes and overall market feasibility of nipa fruit wine.

Scale	Range	Descriptive Rating	Interpretation
4	3.50-4.00	Strongly Agree	Strong positive agreement
3	2.50-3.49	Agree	Moderate agreement
2	1.50-2.49	Disagree	Moderate disagreement
1	1.00-1.49	Strongly Disagree	Strong negative disagreement

DEFINITION OF TERMS

To have a better understanding of this study the researchers operationally defined the following word.

1. **Bartenders -** Individuals involved in the making, serving, and presentation of alcoholic beverages to customers who have major effects on the palates of consumers and acceptance of new beverage categories. It take the opportunity to promote nipa fruit wine, make recommendations to customers, hold tastings, and offer feedback on consumer response to nipa fruit and how they responded.
2. **Commercialization-** The process of developing nipa fruit wine from its production and release to the marketplace and full-scale distribution, with the mobilization of resources and marketing.
3. **Consumer acceptance** -The liking and preference of consumers to sensory attributes or products, which were here measured on a four hedonic scale.
4. **Diffusion of Innovation Theory-** A model depicting the spread and degree of adoption rate of ideas or products (such as nipa fruit wine) within various segments of the population over time.
5. **Food Safety Act of 2013 (Republic Act No. 10611)-** Philippine food and beverage regulations for the safety and quality control of food and beverages that regulates quality control over Filipino fruit wine (Nipa Fruit

ISSN (Online): 2455-3662
EPRA International Journal of Multidisciplinary Research (IJMR) - Peer Reviewed Journal
Volume: 12| Issue: 4| April 2026|| Journal DOI: 10.36713/epra2013 || SJIF Impact Factor 2026: 8.753 || ISI Value: 1.188

Wine) to protect consumers and comply with regulations.

6. **Good Manufacturing Practices (GMP)** – Procedures or conditions necessary to comply with applicable regulations if resultant products are not safe and/or suitable for consumption.
7. **Hazard Analysis and Critical Control Points (HACCP)**- A systematized preventive food safety strategy to monitor risks daily during the manufacturing process of nipa fruit wine.
8. **Local Consumers and Tourists-** People living in or visiting the First Congressional District of Bohol that may play a role in the patronage of nipa fruit wine.
9. **Locally produced** – Anything that's made in the Philippines, from homegrown materials to local processing techniques (old or new).
10. **Market potential** – The extent to which a product is expected to be accepted and taken up by the market in this case: based on consumer preferences, purchase intention, willingness-to-pay and competitive position.
11. **Nipa Fruit Wine** – An alcoholic drink produced from the fermented fruits or juice of nipa palm fruit (*Nypa fruticans*). It is a fruit-based wine characterized by its unique flavor profile.
12. **Purchase Intent** – The chances or extent to which a consumer will make purchase decisions based on what they have seen or felt how, and their attitude or preference level.
13. **Purposive Sampling** - Non-random method of selecting participants in which they are chosen based on one or more specific characteristics that are known to predict the dependent variable, such as prior knowledge of wine or as previous job being a bartender and wine expert.
14. **Sustainable Production-** Method of production and trade in nipa fruit wine by harvesting the fruit using sustainable methods that protect the environment.
15. **Theory of Planned Behavior (TPB)**- A psychological model which describes consumer behavior along intention basis with its related effect of attitude, subjective norm, and perceived behavioral control on the acceptance and adoption of products such as nipa fruit wine.
16. **WTP (Willingness to Pay)** – The valuation or perceived worth attributed by consumers to the nipa fruit wine versus commercial fruit wine products, which is expressed as the maximum amount of money they are willing to pay for a unit.
17. **Wine Experts**- Experts in the field of wine, from sommeliers to oenologists, know a lot about the industry's principles of wine tasting, production methods and assessing wine's quality. They scrutinize wine quality, scent, and taste as well as all-around pleasure. Wine experts possess the unique ability to critique the sensory qualities of nipa fruit wine, steer product improvement procedures, and help position the wine products in the competitive beverage industry so that consumers and industry standards are met.
18. **Wine Producers**- The producers of wine are individuals that create wine. They manage the entire production chain and ensure product quality and uniformity.
19. **4-Point Hedonic Scale-** Measurement tool used in liking level of nipa fruit wine to quantify consumer preference,4 = Strongly Agree (strong positive agreement),to 1 = Strongly Disagree (strong negative disagreement).

Chapter 2
PRESENTATION, ANALYSIS, AND INTERPRETATION OF DATA

The preceding chapter explained the methodology that formed as the foundation for data collection, while this chapter focuses on the methodical presentation, analysis, and interpretation of the gathered data. To improve clarity and enable a thorough comprehension of the material, a variety of presentation techniques were used.

1. Demographic Profile of Respondents

The demographic profile of the participants was meticulously examined to gain a broad comprehension of the consumer class of nipa fruit wine in the First Congressional District of Bohol. The survey included 100 respondents, including 25 bartenders, 35 local consumers and tourists, 25 foreign consumers and tourists, and 15 wine producers and experts.

There was a diversity in the age of the people answered, with most of them being in the young adult to middle-aged group, indicating an active market segment that is more likely to consume new alcoholic drinks. The demographic characteristics together helped to get a more detailed picture of nipa fruit wine target market.

1.1 Age

In the prospective market of nipa fruit wine, age was considered one of the most important factors for consumer liking and purchasing. Understanding the age pattern of prospective consumers allowed the research to identify which demographic segment may have the most motivation to take up this new fruit-based alcoholic beverage.

The researcher analyzed liking, purchase intent, and willingness to pay trends with respect to age to provide marketers tactical insights into how they might create marketing interventions that targeted and stimulated the target segments. Because its approach focused on age, nipa fruit wine was positioned to be fit for diverse needs and expectations. Thus, having better prospects for commercial success.

ISSN (Online): 2455-3662
EPRA International Journal of Multidisciplinary Research (IJMR) - Peer Reviewed Journal
Volume: 12| Issue: 4| April 2026|| Journal DOI: 10.36713/epra2013 || SJIF Impact Factor 2026: 8.753 || ISI Value: 1.188

Table 1.1
Profile of Participants in Terms of Age
N=100

Age	Generations	Frequency	Percentage	Rank
18-29	Generation Z	23	23.0%	2
30-45	Millennials/ Generation Y	45	45.0%	1
46-61	Generation X	20	20.0%	3
62 and above	Baby Boomers	12	12.0%	4

Table 1.1 shows the results of demographic profile in terms of age. The sample included 45% respondents aged 30–45 and was the demographic group which was the most dominant by age at all. This suggested that the middle-aged adults were overwhelmingly significant in the study and were the largest group used in determining the market potential of nipa fruit wine.

Participants within 18–29 was the next largest group, comprising 23% of this study sample. This meant that younger adults also made up a large share of the possible market, due perhaps to a willingness to try new products. The 46–61 demographic represented 20% of the surveyed population and was placed third in the largest group, representing moderate older working-age members.

Lastly, the oldest age subgroup was 62 years or above (12%) being fourth among all the respondents. The results showed that the market opportunity of nipa fruit wine found most promising in economically active and social dynamic ages. These were mainly in the age groups of 30–45 years while among the younger individuals 18–29 years of age were also the most attractive to target segments.

Even smaller numbers of older age groups made a mark in market demographics and identified areas of potential for focused strategies that could highlight tradition or health benefits or even lifestyle appeal. These demographic breakdowns aided in identifying the demographics which are most likely to affect the acceptance of nipa fruit wine from all phases of its market growth process and success.

1.2 Gender

Gender was an important influence on consumer behavior and liking in the beverage industry. In this research on the market potential of nipa fruit wine, looking at the gender profile of respondents also contributed to identifying differences in liking level based on taste, consumption patterns, and purchase intentions in male and female consumers.

These gender differences were key in designing specific marketing strategies and product positioning that appealed to different groups. This realization allowed producers and marketers to gain greater impact on and attractiveness to men and women and, by extension, the commercial potential of nipa fruit wine.

In addition, exploring gender dynamics helped identify specific barriers or motivators associated with purchasing decisions so that stakeholders could address these factors strategically. This study sought to present a deeper and more inclusive understanding of the nipa fruit wine market that would allow promotion to be based on the preferences of a broader base of consumers and would facilitate wider acceptance and sustained demand for the nipa fruit wine by incorporating gender analysis as an additional aspect of the research.

Table 1.2
Profile of Participants in Terms of Gender
N=100

Gender	Frequency	Percentage	Rank
Female	33	33.0%	2
Male	67	67.0%	1

Table 1.2 shows respondents gender profiles, and the total sample size is 100. Most of the respondents are male, accounting for 67 percent of the sample, which is the most common and in the highest percentage. The remaining 33 percent are female, second in frequency and percentage.

It is in such distribution, male subjects were much more common in the study and may be indicative of demographic features of the population or the sampling procedure of the analyzed study. Awareness of this gender makeup is vital in contextualizing the results of the study and in reflecting on the possible gendered effects on the results.

1.3 Nationality

The nationality factor, distinguishing between local and international consumers, was vital for a proper understanding of the market potential of nipa fruit wine. Examining Filipino residents' liking level and purchase intentions and foreign tourists' purchase behavior gave a better view of their attraction to the product, also in different cultural contexts.

ISSN (Online): 2455-3662
EPRA International Journal of Multidisciplinary Research (IJMR) - Peer Reviewed Journal
Volume: 12| Issue: 4| April 2026|| Journal DOI: 10.36713/epra2013 || SJIF Impact Factor 2026: 8.753 || ISI Value: 1.188

Local consumers may have been better acquainted with nipa fruit and had cultural associations with the product that affected their acceptance and loyalty, while overseas consumers may have represented an opportunity for expanding the market through novelty and uniqueness.

Considering both groups helped the study to obtain a broader understanding of the demand, identify potential niche markets, and develop marketing campaigns specific to different nationalities' expectations and preferences. This twofold point of view was key in defining nipa fruit wine as a local specialty but also as a unique one, able to attract international consumers.

Table 1.3
Profile of Participants in Terms of Nationality
N=100

Gender	Frequency	Percentage	Rank
Local	75	75.0% (3/4)	1
International	25	25.0% (1/4)	2

Table 1.3 presents the nationality status of the respondents where 75% are local and 25% are international. It is obvious from this distribution that the overwhelming market potential of nipa fruit wine is primarily derived from the local consumers in the First Congressional District of Bohol. The significant number of respondents were found from the country's province level which reflects higher perception in nipa fruit wine among Filipino consumers and perhaps higher cultural familiarity and appreciation for native drinks like nipa fruit wine.

On the other hand, a still smaller but relatively smaller segment, the international side of the market provides an attractive niche market that could increase demand by harnessing the novelty and uniqueness of this localized beverage. Since these targeted marketing strategies can be especially focused on local and foreign consumers, studying the purchasing preference and intention at the local level of the consumers as well as overseas is vital to help develop a marketing strategy that works for these categories of consumers.

For instance, marketing campaigns for locals could play up their traditional and cultural worth whereas international tourists could promote authenticity and health benefits. Generally, the nationality profile highlights the need to cater to foreign market as well as home market in an increasing international market to increase the commercial success of nipa fruit wine.

1.4 Monthly Income

Monthly income was a significant factor that plays an essential role in influencing purchasing power and consumer behavior, which was considered an important consideration for judging the market potential of nipa fruit wine. Through the study of respondents' income, to understand the relationship of affordability and spending capacity to determine consumers' willingness to try and regularly purchase this product. Evaluating monthly income contributed to marketing and distribution efforts being suited to the financial situation of the target market, making nipa fruit wine more accessible and competitive in different economic segments (₱10,000–₱19,999, ₱20,000–₱29,999,30,000-39,999 and 40,000 and above).

Table 1.4
Profile of Participants in Terms of Monthly Income
N=100

Income	Frequency	Percentage	Rank
Below 10,000	7	7.0%	4.5
10,000-19,999	25	25.0%	3
20,000-29,999	35	35.0%	1
30,000-39,999	7	7.0%	4.5
40,000 and above	26	26.0%	2

Table 1.4 shows monthly income distribution of participants among 100 participants. The largest group falls in the income bracket of ₱20,000 to ₱29,999, accounting for 35 percent of the respondents, making it the highest ranked. Runner up next is the group of ₱40,000 and above with 26 percent of the sample, the second place. Those of ₱10,000 to ₱19,999 comprise 25 percent of the total of respondents and are thus the third. The lowest representation is found in the below ₱10,000 and ₱30,000 to ₱39,999 income brackets, which each represent 7 percent of respondents and are placed in the fourth position.

Based on this data, it can be inferred that the segment of respondents is relatively concentrated along the average middle income line, with few people at the lower and higher end of that income span. This type of income distribution provides useful information about the socio-economic profile of the sample and whether it affects their attitudes and experiences during the research.

1.5 Frequency of Wine Consumption

Frequency of consumption was a crucial factor for the analysis of nipa fruit wine market potential, as it offered insight into drinking

ISSN (Online): 2455-3662
EPRA International Journal of Multidisciplinary Research (IJMR) - Peer Reviewed Journal
Volume: 12| Issue: 4| April 2026|| Journal DOI: 10.36713/epra2013 || SJIF Impact Factor 2026: 8.753 || ISI Value: 1.188

patterns and their involvement with alcoholic beverages. Understanding the frequency of consumed wine also helped in market segmenting and marketing and distribution to different groups of consumers, from occasional drinkers to frequent wine consumers.

Such consumer behavior patterns were in line with previous studies emphasizing that consumers who embraced new alcoholic beverages tend to be more likely to also adopt them at the social level (Ajzen, 1991). Such a rich understanding of consumption frequency also guided marketing efforts promoting novel health-seeking beverages in niche groups (Garcia & Santos, 2022). Consequently, this knowledge was important to predict consumer sales for nipa fruit wine and create promotion campaigns.

Table 1.5
Profile of Participants in Terms of Frequency of Wine Consumption
N=100

Frequency of Wine Consumption	Frequency	Percentage	Rank
Rarely (less than once a month)	7	7.0%	4.5
Occasionally (2-3 times a month)	25	25.0%	3
Frequently (4-5 times a month)	35	35.0%	1
Regularly (more than 6 times a month)	7	7.0%	4.5

Table 1.5 portrays respondents' frequency of consuming wine showing that the largest group, about 35 percent, do so frequently with 25 percent occasionally. A smaller segment of 7 percent each said they rarely and regularly drank wine. Although this gives a good indication for a future of nipa fruit wine's market since a large amount are already accustomed to using wine products, indicating an appetite for wine products.

Frequent consumers were also found to be consistent with research published concerning how to predict demand through consumer behavior patterns (Ajzen, 1991). In addition, the frequent and occasional consumers constitute the general consumers with wide ranging adopters at the level of potential adopters for whom marketing and promotions may be directed to drive trial and repeat purchases (Nguyen et al., 2022).

Identifying such consumption patterns is necessary for shaping product positioning, pricing and distribution strategies that can be customized to the consumer preference and consumption habits, thereby assisting nipa fruit wine to promote the sustainable commercialization in local and niche markets (Smith & Johnson, 2021; Garcia & Santos, 2022).

2. The Measured Sugar Content and Alcohol Level of Nipa Fruit Wine

Sugar content and alcohol level as the measures of nipa fruit wine were also measured and analyzed in the study to assess the quality of this product and its compliance with the standards of the industry. Laboratory tests were performed to correctly quantify these values and have implications for taste profile, fermentation quality and consumer acceptability of the wine in general.

Testing for sugar and alcohol content also ensured that the nipa fruit wine complied with the regulations as contained in the Food Safety Act of 2013 (Republic Act No. 10611), essential to approval in the market and safety of consumers. The results yield important numbers in developing a product, establishing nipa fruit wine as a safe, and high-quality alternative in the crowded alcoholic beverage industry.

These analyses also lent support to the balance between sensory appeal and health, which is increasingly popular considering consumer preference for natural and wellness-enhancing products (Lopez et al., 2022; Smith & Johnson, 2021).

Table 2
Content Analysis of Sugar and Ethanol in Nipa Fruit Wine Result

Analysis	Unit	Result	Test Method
Total Sugar	g/100g	8.4	Munson-Walker
Ethanol	%v/v	7.9	Distillation/Gas Chromatography

Analysis of sugar and ethanol content in nipa fruit wine indicated a total sugar concentration of 8.4 grams per 100 grams, and a level of ethanol value of 7.9% v/v—indicating an intake of moderate sweetness and alcohol in nipa fruit, which is a direct contributor to consumer preference and sensory quality.

The sugar level adds to the flavor profile of the wine, balancing acidity and increasing drinkability, while where the ethanol content lies, it falls in the range of typical concentration for fruit wines, making it suitable for a larger consumer base. These objective measures correlate to the standard of the product for meeting food safety and regulatory expectations of the Food

ISSN (Online): 2455-3662
EPRA International Journal of Multidisciplinary Research (IJMR) - Peer Reviewed Journal
Volume: 12| Issue: 4| April 2026|| Journal DOI: 10.36713/epra2013 || SJIF Impact Factor 2026: 8.753 || ISI Value: 1.188

Safety Act of 2013 (Republic Act No. 10611), thereby benefiting the consumer and market.

In addition, moderate alcohol content also aligns with the trend being made on alcohol for the healthy lifestyle and is in line with the consumer preference to natural/healthy products (Lopez et al., 2022; Smith & Johnson, 2021). These results demonstrate that nipa fruit wine stands well positioned to compete with traditional and niche brands in the local and niche categories by providing an attractive option that aligns with the traditional appeal with contemporary standards of quality.

3. Consumer Liking Level of Nipa Fruit Wine

The level of consumer liking was a key factor during the nipa fruit wine market research because it explained the level of consumer acceptance to the wine by the target market segment. The study sought to measure consumer real preferences and satisfaction with a product by measuring perceived qualities of taste, aroma, appearance, and general acceptance by applying a structured hedonic scale based on the results of the taste test.

Measuring the liking was also crucial not only for measuring initial acceptance but also to figure out how the product can be improved, so that it is more appealing to and promotes repeat purchases. This focus on consumer liking level is consistent with previous work showing that sensory evaluation was the most critical for developing a product's acceptance and success in the market (Hilot, Russell et al, 2025). Understanding specific sensory attributes that consumers prefer allowed producers to tailor the flavor, aroma, and texture of nipa fruit wine to better meet market demands. Additionally, continuous feedback on liking levels helps guide iterative product development, ensuring sustained consumer interest and competitive positioning.

Table 3
Consumers' Liking Level of Nipa Fruit Wine
N=100

Product Attributes	Median	Mode	Description
Aroma	4	4	Like Very Much
Taste	4	4	Like Very Much
Appearance	4	4	Like Very Much
Overall Experience	4	4	Like Very Much

Table 3 shows consumer preference in aroma, taste, appearance, and overall experience of nipa fruit wine. Because the information was developed based on a Likert scale, it belongs to the column of ordinal categories/criteria. Moreover, responses were not distributed normally and were skewed, whereas median and mode were more meaningful, as measures of central tendency for summary of consumer rating (Hilot et al, 2025).

Every product characteristic had median and mode values 4 (Like Very Much), showing consumers a high acceptance and enjoyment of nipa fruit wine for the relevant sensory characteristics. The high marks for aroma, taste, and appearance indicate that the sensory attributes of the product met the expectations of consumers, an important factor since sensory quality plays a vital role in consumers' adoption of new fruit wines (Smith & Johnson, 2021).

Equally, the consistent average score for overall evaluation reflects consumer satisfaction, strengthening the wine's competitive image in the marketplace. It is very consistent that median and mode values throughout attributes were made that most respondents answered in the same right category. This consistency validates the assumption that nipa fruit wine is highly perceived and may gain acceptance in the market. This resonates with Ajzen's (1991) Theory of Planned Behavior, which suggests that positive attitudes of consumers toward product attributes are associated with increased purchase intentions.

In general, the positive evaluation of sensory attributes reported in this study contributes to the expanding literature showing that indigenous fruit wines with a favorable profile are effective at penetrating niche and mass markets (Nguyen et al., 2022; Garcia & Santos, 2022).

4. Significant Difference in the Consumer's Liking Level Based on Profile

Demographic profile analysis did not show significant differences in consumer preference between the analyzed groups. Some respondents presented varying mean age, gender, nationality, monthly income, and wine frequency, but their overall liking of nipa fruit wine was similar.

This result indicated that nipa fruit wine appeals beyond demographic boundaries among the people studied and is seen as acceptable in the market. According to the Theory of Planned Behavior (Ajzen, 1991), behavioral intentions can be influenced in the same manner across a wide group, so long as attitudes towards the product are favorable.

Nevertheless, although no notable difference is indicated, this demonstrates the potential of the nipa fruit wine to appeal to a varied consumer market within its market, and reaffirms previous investigation findings that indigenous and innovative drinks are capable of reaching a broader consumer market when the campaign is formulated successfully (Smith & Johnson, 2021; Hilot, Russell et al.).

ISSN (Online): 2455-3662
EPRA International Journal of Multidisciplinary Research (IJMR) - Peer Reviewed Journal
Volume: 12| Issue: 4| April 2026|| Journal DOI: 10.36713/epra2013 || SJIF Impact Factor 2026: 8.753 || ISI Value: 1.188

Table 4
Differences in Liking Level of Nipa Fruit Wine by Demographic Profile
N=100

Purchase Intent	Frequency	p-value	Decision	Interpretation
Age	3.40 (Kruskal-Wallis)	0.493	Do not reject null hypothesis	Insignificant
Gender	859 (Mann-Whitney)	0.044	Reject null hypothesis	Significant
Nationality	817 (Mann-Whitney U)	0.256	Do not reject null hypothesis	Insignificant
Monthly Income	3.33 (Kruskal-Wallis)	0.506	Do not reject null hypothesis	Insignificant
Frequency of wine consumption	7.18 (Kruskal-Wallis)	0.066	Do not reject null hypothesis	Insignificant

To determine whether there is a significant difference in the liking level of nipa fruit wine based on respondents' profile, Mann–Whitney U tests were used for variables with two groups (Gender, Nationality), and Kruskal–Wallis H tests were used for variables with three or more groups (Age, Monthly Income, Frequency of Wine Consumption), due to the ordinal nature of the data and its non-normal distribution.

As presented in Table 4, results indicate that there is no significant difference in liking level across most profile variables. Specifically, Age ($H = 3.40$, $p = 0.493$), Monthly Income ($H = 3.33$, $p = 0.504$), and Frequency of Wine Consumption ($H = 7.18$, $p = 0.066$) showed no significant difference, indicating that there is not enough evidence to show that consumers' liking level is different across different age groups, income brackets, and consumption frequencies. Nationality ($U = 817$, $p = 0.256$) was also not significant, suggesting that liking level is comparable between local and foreign respondents.

However, Gender showed a significant difference ($U = 859$, $p = 0.044$), indicating that male and female respondents differ in their liking level toward nipa fruit wine. Although the median liking level for both males and females were the same (4 – "Like Very Much"), the mean ranks for females were higher than those for males, suggesting that female respondents generally rated the product more favorably than male respondents.

This profound gender disparity can guide producers and marketers to adjust their promotional activities and product development to maximize appeal and consumption behaviors among male and females, thus promoting the market potential and uptake of the product (Nguyen et al., 2022; Garcia & Santos, 2022).

5. Level of Purchase Intent and Willingness to Pay

Among the factors examined to evaluate the market potential of nipa fruit wine were the level of purchase intent and willingness to pay. The research measured how likely consumers were to buy the product and the amount they were willing to spend, which provided important insights into the product's market viability and pricing methods.

Research on purchase intention enabled discovering consumers' readiness to adopt nipa fruit wine beyond initial trial, as well as willingness to pay, which provided valuable information on perceived value and competitiveness in relation to existing alternatives. These factors are highly connected with the Theory of Planned Behavior (Ajzen, 1991) model of consumer attitudes and intentions and are vital factors that predict market acceptance.

Findings on these variables informed recommendations on marketing strategies, pricing models, and product positioning to facilitate optimal market entry into the beverage industry and encourage consumption, which can lead to maximization of demand and sustain effective commercialization of nipa fruit wine in both local and broader markets.

Table 5.1
Purchase Intent of Nipa Fruit Wine
N=100

Purchase Intent	Frequency	Percentage	Rank
Very Much Willing	71	71.0%	1
Willing	25	25.0%	2
Not Willing	4	4.0%	3

The consumer liking of nipa fruit wine is presented in Table 5.1 and 71 percent were "Very Much Willing" to accept the product, and 25 percent were only "Willing" to accept it, and only 4 percent expressed reluctance. Results indicating this overwhelmingly positive response show high consumer acceptance and a favorable perception of nipa fruit wine was

ISSN (Online): 2455-3662
EPRA International Journal of Multidisciplinary Research (IJMR) - Peer Reviewed Journal
Volume: 12| Issue: 4| April 2026|| Journal DOI: 10.36713/epra2013 || SJIF Impact Factor 2026: 8.753 || ISI Value: 1.188

obtained in the sample population. High willingness to consider the product to try and to purchase is in line with the Theory of Planned Behavior (Ajzen, 1991), which suggests that positive attitudes lead to greater behavioral intention about and uptake of such a behavior.

In addition, the results are consistent with previous studies that highlight sensory satisfaction is a key factor influencing the impact of the consumer in the context of success and that the benefits are significantly greater for emerging products, such as indigenous fruit wines (Hilot, Russell et al.).

The enormous demand evident from this data indicates that the market opportunity of the nipa fruit wine is possible. This indicates that for the manufacturers of nipa fruit wine through promotion/marketing and distribution, the market can successfully be entered, where consumers should be receptive of them. These findings also demonstrate an avenue for further attracting consumers, focusing on specific education and branding strategies to both maintain and extend market development (Nguyen et al., 2022; Garcia & Santos, 2022).

Table 5.2
Willingness to Pay for Nipa Fruit Wine per 750ml
N=100

Willing Price	Counts	Percentage	Rank
Below 250	14	14.0%	3
250-300	48	48.0%	1
Above 300	38	38.0%	2

Table 5.2 shows the willingness to pay of respondents per 750ml and shows that almost half (48%) were willing to pay 250 to 300 pesos, which would be the most preferred price range for nipa fruit wine. A moderate percentage (38%) also indicated a willingness to pay above 300 pesos and 14% preferred price below 250 pesos.

This is a distribution reflective of a favorable overall perception of the product's value and where consumers are willing to spend upwards of a mid-to-high price for nipa fruit wine to suggest its potential positioning premium or niche beverage. The willingness to pay is consistent with the literature which focuses on the role of consumer attitude, affecting the behavior of purchase intention and price acceptance, considering perceived quality and uniqueness (Ajzen, 1991; Nguyen et al., 2022).

These understandings were valuable for shaping pricing models which did not compromise in between economics and profits, ensuring long-term commercialization and market competition. Knowledge of such consumer price was useful for targeting segments and customizing marketing initiatives to satisfy consumers' needs in turn contributes positively to the market potential of nipa fruit wine.

6. The Perceived Opportunities and Barriers to the Commercialization of Nipa Fruit Wine

The researcher sought to perceive the various factors that influenced nipa fruit wine's market potential. Knowing these factors was important information for designing a business model which can help the product to break into and grow in local and broader markets. Although innovations based on indigenous products, in particular nipa fruit wine, have been presented with great potentials, some potential difficulties were reported regarding public knowledge, production capability and the competitiveness of market with the introduction of these (Garcia et al., 2019; Nguyen et al., 2020).

Sustainable production processes and policy frameworks and their support are also identified as vital conditions for sustainable growth (United Nations, 2020; Department of Agriculture, 2019). Through investigating these identified opportunities and constraints, this study provided recommendations for producers, marketers, as well as policymakers, on how to overcome obstacles and exploit strengths for nipa fruit wine to be developed sustainably as a competitive local product.

Table 6.1
Perceived Opportunities on the Commercialization of Nipa Fruit Wine
N=100

Statements	Mean	Description	Rank
1. There is a growing market for nipa fruit wine.	3.48	Strongly Agree	4
2. Nipa fruit wine promotes local agricultural products.	3.75	Strongly Agree	3
3. Consumers are willing to try new types of wines like nipa fruit wine.	3.80	Strongly Agree	1
4. Nipa fruit wine has potential to attract tourists and boost the local economy.	3.79	Strongly Agree	2
Overall Mean	**3.71**	**Strongly Agree**	

ISSN (Online): 2455-3662
EPRA International Journal of Multidisciplinary Research (IJMR) - Peer Reviewed Journal
Volume: 12| Issue: 4| April 2026|| Journal DOI: 10.36713/epra2013 || SJIF Impact Factor 2026: 8.753 || ISI Value: 1.188

The table 6.1 shows that in terms of a perceived opportunity for commercialization on the value of the wine of nipa fruit, the results suggest a favorable attitude in the respondents with mean score 3.71 overall confirming significant agreement on all significant issues. By and large, the vast majority (mean = 3.80) of the participants had a strong support for the claim that consumers are likely to attempt new kinds of wine, like the nipa fruit wine, indicating how much consumers were willing to experiment with unique and creative drinking and innovation.

The value would be the perception that nipa fruit wine might attract tourists and support development of the local economy (mean = 3.79), indicating this product is a regional specialty that has the power to promote cultural tourism and economic growth, also based on the findings of other researches which showed that indigenous products can be a stimulus for rural development (United Nations, 2020; Department of Agriculture, 2019).

The local agricultural product marketing via nipa fruit wine was also positively supported (mean = 3.75) indicating its value-added benefits to native resources and support to local farmers, in harmony with the local governance legislative structure in promoting local value-added indigenous value creation (Republic Act No. 10601).

Finally, the market perception of a nascent market for nipa fruit wine (mean = 3.48) confirms the commercial potential due to an increase in consumer demand for alternative and wellness-oriented alcoholic beverages (Smith & Johnson, 2021; Lopez et al., 2022). Collectively, the findings indicate that stakeholders view nipa fruit wine to have high market potential influenced by consumers' willingness to order, cultural attractiveness, and match with the sustainable agricultural development.

Table 6.2
Perceived Barriers on the Commercialization of Nipa Fruit Wine
N=100

Statements	Mean	Description	Rank
1. Lack of awareness limits the consumption of nipa fruit wine.	2.88	Agree	1
2. The limited availability of nipa fruit wine hinders its commercialization.	1.67	Strongly Disagree	3
3. The price of Nipa fruit wine may limit its accessibility to regular consumers.	1.38	Strongly Disagree	5
4. There are negative perceptions or stigma towards nipa fruit wine,	1.49	Strongly Disagree	4
5. Regulatory or legal factors make commercialization difficult.	1.71	Strongly Disagree	2
Overall Mean	**1.83**	**Disagree**	

Table 6.2 presents the data concerning perceived barriers to nipa fruit wine commercialization indicate that participants had a relatively low degree of concern about these issues (mean = 1.83), meaning that they tend to disagree on what obstacles significantly impede market growth. Lack of awareness was rated the highest barrier, as respondents agreed that it curtails consumption (mean = 2.88), indicating that awareness remains the major hurdle to expanding uptake. As previously reported, low consumer awareness and scarce market exposure frequently limit access to novel indigenous products, such as nipa fruit wine (Nguyen et al., 2022; Garcia et al., 2019).

By contrast, respondents strongly disagreed with similar barriers such as limited product availability (mean = 1.67), high price restricting access (mean = 1.38), negative attitudes or stigmatization (mean = 1.49), and regulatory barriers (mean = 1.71). This implies that such obstacles such as distribution channels, price, social acceptability and legal frameworks on offer are not seen by the general population to be major impediments on this market, potentially indicative of supportive recent legislative and positive cultural attitudes (Republic Act No. 10601; 1987 Philippine Constitution Articles XII and XIII).

In essence, this conclusion indicated that to realize the potential of nipa fruit wine in the market, the education and knowledge of consumers were considered critical components of the strategy. Additionally, maintaining product quality and compliance with regulations was essential for supporting the growth of both local and niche markets. Educating consumers about the unique health benefits and cultural significance of nipa fruit wine could enhance awareness among target customers. More importantly, by ensuring high quality through strict adherence to regulations, consumer protection and trustworthiness were established, which contributed to long-term success.

7. Suggestions for Commercialization

Respondents' insightful perspective was obtained in form of suggestions on possible enhancement of the commercialization in nipa fruit wine. According to the responses to the questionnaire, some suggestions/applications were proposed that might improve market acceptance and consumer's preference for the product.

ISSN (Online): 2455-3662
EPRA International Journal of Multidisciplinary Research (IJMR) - Peer Reviewed Journal
Volume: 12| Issue: 4| April 2026|| Journal DOI: 10.36713/epra2013 || SJIF Impact Factor 2026: 8.753 || ISI Value: 1.188

Figure No. 3
Commercialization Suggested Strategies

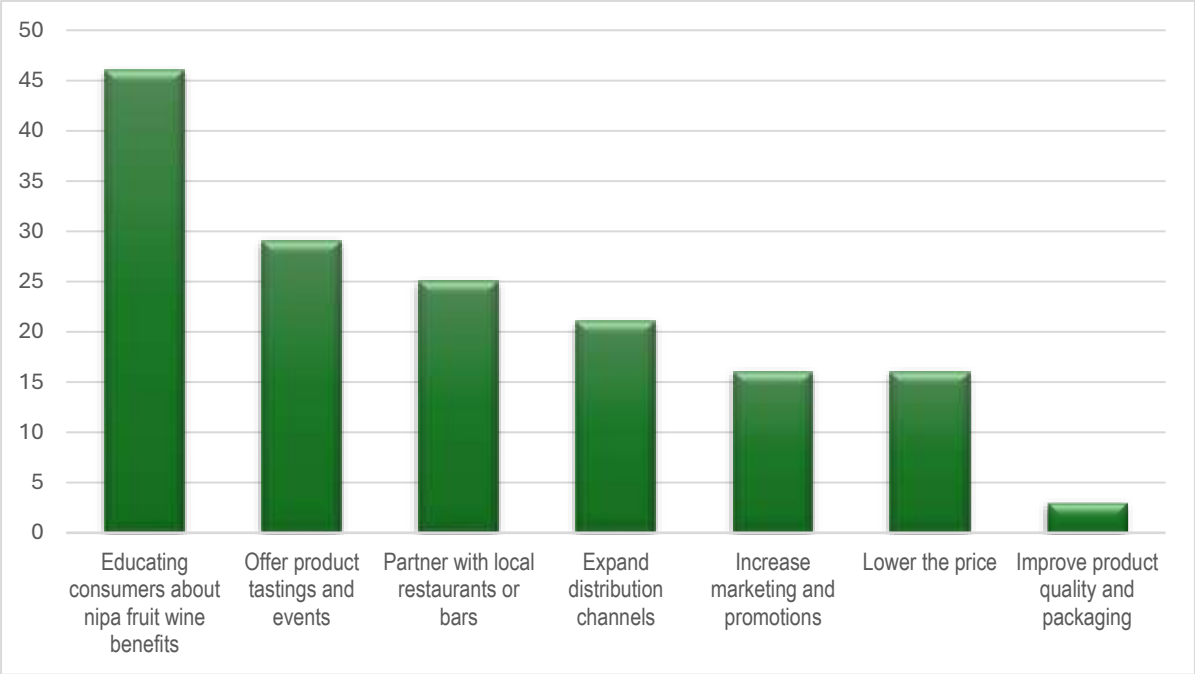


Figure 3 shows respondents' preferred market potential of nipa fruit wine when measured by the number or degree of support for the strategies mentioned. In general, the study highlights that consumer awareness and information exposure were identified as more important obstacles to the development of a market than product-related factors concerning product quality, packaging, and pricing. That's consistent with previous study in the literature, which found that market knowledge is the obstacle to most entry of new products rather than defects of existing products (Ajzen, 1991; Smith & Johnson, 2021).

One of the best-supported strategies was to inform consumers about the benefits of nipa fruit wine, which was rated nearly 46. This suggests that lack of consumer awareness is the most significant obstacle to the market extension. It is perceived that nipa fruit wine is not perceived as a high-quality wine that might be desirable for health reasons or have strong cultural significance by consumers, because to us, it is limited in its nature, cultural context and health benefits. This interpretation corroborates earlier research indicating that consumer education promotes acceptance of indigenous and health-oriented beverages (Lopez et al., 2022; Nguyen et al., 2022).

The next most supported strategy was to hold product tastings and events (around 29), which serves as a reminder of experiential marketing. This offers consumers an outlet to try out nipa fruit wine because alcoholic drinks are mostly assessed considering sensory characteristics, exposure directly stimulates an interest and the willingness to accept them, as suggested by research into sensory assessment and consumption (Hilot, Russell et al.; Ajzen, 1991).

Coming in very close behind, partnering with local restaurants or bars (approximately 25) was a vital strategy. That echoes respondents' beliefs that institutional patronage and presence in social or communal drinking spaces strengthen product legitimacy and familiarity. These events often convey quality and promote the adoption of nipa fruit wine into accepted consumption practices, thereby supporting the results of research showing that strategic partnership allows diffusion of innovation (Rogers, 2003).

The moderate amount of support for expanding distribution channels (around 21) indicates that accessibility, despite being relevant would be, again, of less concern after gaining awareness and promoting it. Yes, since the product will already be in target areas, although little demand continues to drive product introduction because the consumer knows very little about it. Such theory is in line with those of commercialization that focus on education in market and tests of products before wide dissemination (Gauthier & Gilomen, 2019).

Finally, the lowest support received for quality enhancement and packaging (approximately 3) implies a wide agreement with product quality. This result adds to the claim that barriers being suffered by nipa fruit wine in its expansion in the market are largely a matter of communication and exposure to the consumer rather than a product weakness. These results provide an indication of a high market potential for nipa fruit wine, based around consumer education, experiential taste-testing and strategic collaborations with key groups of customers the social and hospitality institutions.

ISSN (Online): 2455-3662
EPRA International Journal of Multidisciplinary Research (IJMR) - Peer Reviewed Journal
Volume: 12| Issue: 4| April 2026|| Journal DOI: 10.36713/epra2013 || SJIF Impact Factor 2026: 8.753 || ISI Value: 1.188

COMMERCIALIZATION PLAN OF NIPA FRUIT WINE

Rationale

Considering the growth of global and local demand for innovative and health-oriented alcoholic beverages, this program focuses on commercializing nipa fruit wine as a unique, indigenous product, which has tremendous market potential in Bohol's First Congressional District.

This program is an opportunity to increase consumer awareness of nipa fruit wine and its distinctiveness, both in terms of taste and its cultural relevance, and in turn to urge local consumers and tourists to purchase this premium beverage. The initiative benefits local farmers too as it promotes sustainable harvesting of nipa palms, helping rural economic growth with conservation of the environment.

II. Objectives

1. To attract repeat wine drinkers, especially middle-aged and young adults, as determined by the findings of the study.
2. Focus on a target range consisting of both male and female consumers who respond positively to your product and likely have purchase intentions.
3. To include domestic consumers and foreign tourists.
4. Place nipa fruit wine primarily in mid- to premium price range (₱250–₱300 and above).
5. To market the product as a health-conscious and culturally authentic beverage.
6. To utilize distribution channels such as restaurants, bars, hotels, and specialty stores to ensure wide consumer penetration.

III. Mechanics

1. Preparation and quality control of product.
   A. Procure nipa fruit sustainably from local growers with deals guaranteeing reliable supply.
   B. Conform to standardized fermentation and production processes in accordance with Good Manufacturing Practices and Hazard Analysis Critical Control Point to ensure quality and safety.
   C. Test sugars, alcoholic beverages, and contaminants in lab for each production batch.
   D. Package nipa fruit wine in appealing, culturally sensitive bottles and label them with labels emphasizing good health benefits and genuine produce.
2. Pricing Strategy
   A. Make retail pricing generally around ₱250–₱300 for a bottle but higher for specialty edition or gift packs.
   B. Launch promotional events offer discounts on bulk purchases and introductory pricing to encourage trial.
3. Distribution and Sales
   A. Establish partnerships with local chain restaurants, bars, hotels, specialty retail, and tourist centers located in the surrounding cities of Tagbilaran City, Panglao, and the surrounding localities.
   B. Build Internet ordering services and partner with delivery platforms for accessibility. Track stock levels frequently ensure they're available and avoid stockouts.
4. Marketing and Promotion
   A. Generate consumer educational programs through social media, local events, wine tasting.
   B. Use influencers, local business professionals and wine experts to endorse and promote this product.
   C. More visibility participating at trade fairs, tourism and other cultural attractions.
   D. Offer printed and digital content emphasizing the wine's unique flavor, health characteristics and sustainable production.
5. User Feedback and Product Enhancement
   A. Gather consumer feedback, utilize feedback to improve product taste profiles, packaging and marketing approaches.

IV. Implementation Timeline

Phase	Duration	Key Activities
Pre-Launch Phase	Months 1–3	• Close supply contracts with nipa fruit growers. • Establish plant assembly line and train laborers on standardized production protocols. • Design marketing, packaging, and branding collateral. • Identify and work with initial distribution partners. • Obtain certifications and regulatory approvals.
Launch Phase	Months 4–6	• Launch nipa fruit wine with promotional events, product sampling, and media campaigns. • Start sales in select restaurants, bars, hotels, and retail stores. • Enable online sales channels. • Monitor early sales and customer feedback closely.
Expansion Stage	Months 7–12	• Expand distribution network to additional retail outlets and tourist destinations. • Increase marketing efforts with focus on consumer education and experiential promotions.

ISSN (Online): 2455-3662
EPRA International Journal of Multidisciplinary Research (IJMR) - Peer Reviewed Journal
Volume: 12| Issue: 4| April 2026|| Journal DOI: 10.36713/epra2013 || SJIF Impact Factor 2026: 8.753 || ISI Value: 1.188

		• Adjust pricing, packaging, and sales strategies based on market and customer feedback. • Strengthening partnerships with local tourism agencies and cultural organizations for co-marketing. • Develop collaborations with tour operators and cultural institutions to promote the product jointly.
Sustained Growth and Scale	Year 2 and beyond	• Extend the product line to include organic or specialty batches. • Scale production capacity according to demand, maintaining high quality and adhering to standards. • Explore export opportunities and participate in national and international trade fairs. • Engage continuously with consumers and producers to improve supply chain sustainability and adapt to market changes.

V. Management Team

Commercialization of the product will be managed by the researchers, original wine producers, agricultural specialists, marketing experts and representatives of local government units.

Hospitality companies, tourism offices, and community cooperatives will be among those that offer opportunities to help develop, market and distribute products.

VI. Operations

Production and sales will be based in key areas like Tagbilaran City and Panglao, with pilot retail booths in markets, restaurants, and tourism hubs. The team will adopt sustainable harvesting practices, quality assurance according to legal guidelines and logistics management to ensure product availability.

VII. Capital Requirements

An investment plan for initial capital will be needed to procure raw materials, purchase production equipment, perform quality testing, develop packaging, and a marketing campaign, and establish the distribution channel.

VIII. Promotion

Product demos, product showcases and experiential tastings will be integrated into sales to increase familiarity and preference will be used. Practical selling will focus on engaging restaurateurs, bartenders, and consumers face to face, with publicity using social media, outdoor events, tourism fairs and influencers as the outlets of reach.

Chapter 3
SUMMARY, CONCLUSION, AND RECOMMENDATIONS

This chapter involves the conclusion, findings, study overview, suggestions, analysis, and interpretation of data. Providing a comprehensive summary that integrates the research results to address the study's objectives and inform future actions.

Summary

This study sought to analyze the market potential of nipa fruit wine in the First Congressional District of Bohol in 2025-2026, with all important elements provided in problem statement clearly covered.

1. Demographic Profile of Participants

The 100 respondents identified a heterogeneous sample, which included middle-aged adults (30–45 years, 45%), largely being men (67%), mostly local (75%) and majority earn middle-range monthly incomes (₱20,000–₱29,999 and above ₱40,000). How often they consumed wines showed that most respondents either enjoyed wine several times per month (4–5 times a month, 35%), or occasionally (25%).

2. Consumer Liking Level of Nipa Fruit Wine

Data analysis reveals that consumer liking levels for nipa fruit wine were very strong across the four sensory attributes – aroma, taste, appearance and overall experience, with both median and mode scores of 4 (like very much).

3. Significant Difference in the Consumer's Liking Level Based on Profile

Statistical analyses did not find significant differences in liking between age, nationality, income and frequency of consumption groups but were strongly biased for gender suggesting female respondents rated the wine more positively than male respondents.

4. Level of Purchase Intent and Willingness to Pay

The extent of the purchase intention was mostly positive: 71% of respondents were "Very Much Willing" to buy nipa fruit wine, with 25% saying they were "Willing", suggesting that the product is widely accepted in the market. Willingness to pay showed that around half favored paying for the product in the price range of ₱250–₱300 and 38% preferred paying above ₱300 indicating potential for premium positioning.

5. The Perceived Opportunities and Barriers to the Commercialization of Nipa Fruit Wine

The perceived commercialization opportunities were marked by an increase in consumer openness to try new wines (mean 3.80), promotion of local agricultural products (3.75), tourism potential (3.79), and an increased recognition of a growing market (3.48).

ISSN (Online): 2455-3662
EPRA International Journal of Multidisciplinary Research (IJMR) - Peer Reviewed Journal
Volume: 12| Issue: 4| April 2026|| Journal DOI: 10.36713/epra2013 || SJIF Impact Factor 2026: 8.753 || ISI Value: 1.188

Barriers overall were low (mean 1.83), with only 'lack of awareness' rated as a moderate barrier (mean 2.88), while matters such as limited availability, pricing, stigma, and regulatory issues were mostly ignored.

6. The Measured Sugar Content and Alcohol Level of Nipa Fruit Wine

Laboratory tests supported the fact that nipa fruit wine consists of 8.4 g/100g sugar and 7.9% v/v ethanol and, hence, adheres to the standards of quality and regulatory requirements set out in the Food Safety Act of 2013 and is consumer safe, thereby conforming with the market law.

7. Suggestions for Commercialization

From the above responses, the suggested results for commercialization recommended to educate consumers about nipa fruit wine benefits, product tasting events for market experiences and teaming up with the local restaurants/bars on promotion with the objective to make the product more visible and socially acceptable to market.

The commercialization of nipa fruit wine will help meet the increasing market need for innovative, health-oriented alcoholic beverages with an indigenous product in the First Congressional District of Bohol. Targeting future repeat wine drinkers, particularly men and women of middle and young age groups, local and non-local visitors alike to the area, the wine will be marketed as a healthy, culturally authentic drink in the mid-to-premium price segment (₱250–₱300+) of consumers.

Key features of the plan include that sustainable sourcing from the communities growing the fruit is encouraged, the high quality and safety standards are respected, packaging is visually appealing and culturally relevant, and you will have distribution in restaurants, pubs, hotels, stores, online, and in Tagbilaran City and Panglao. Consumer education, influence endorsements, trade fair participation, and experiential tastings will be a part of the marketing effort, complemented with constant feedback for refining product and promotion.

Implementation is done in phases: pre-launch configuration (supply contracts, production, marketing materials), launch (promotions and initial sales), expansion both on the broader distribution side and accelerated marketing and sustained growth.

Controlled by a group of researchers, producers, marketers and local government and community and hospitality partners, it is accompanied by capital allocation for production and marketing infrastructure. This comprehensive approach is in line with the findings from this study in helping to develop acceptance on the market, a sustainable production process, and economic development through successful introduction of nipa fruit wine.

Conclusion

Based on the findings from this study, nipa fruit wine has great market potential in the First Congressional District of Bohol because of its sensory properties, general consumer acceptance, and favorable socio-economic and legal conditions. It scored positively on aroma, taste, appearance, and overall experience according to demographic criteria, with particularly good feedback from female consumers.

This suggests a degree of purchase intent and willingness to pay at mid-to-premium prices, that is, nipa fruit wine seems like a more appealing alcoholic beverage to a target market that's ready to adopt. The study points to low consumer knowledge as the major challenge. However, price sensitivity, availability, social stigma, and regulatory compliance are other barriers that are low, reflecting the willingness of the consumers to cooperate and the favorable policy framework.

The laboratory analysis confirmed that nipa fruit wine fits with approved quality as well as safety standards, which supports its market entry. The research notes that the commercialization success lies in improved consumer education, providing experiential experiences from tastings, and partnership with local hospitality enterprises.

Taken together, these are indications that nipa fruit wine provides both a differentiating culturally and health-oriented product, one which is consistent with sustainability of rural development and offers local producers, policymakers, and entrepreneurs significant steps to promote economic diversification and to promote the indigenous beverage.

Recommendations

Considering the study's findings and conclusions, the researcher proposed the following recommendations:

1. Agricultural departments and producers should follow and advocate sustainable harvesting and production to protect their nipa palm ecosystem and uphold food safety standards such as Good Manufacturing Practices (GMP)and Hazard Analysis and Critical Control Points (HACCP).
2. Local government units specifically in agricultural and livelihood offices and technical and vocational training institutions may engage in a series of capacity-building programs of nipa fruit wine production focusing on fermentation technology, quality control, and entrepreneurship to enhance product quality and market competitiveness.
3. To improve market access and availability of Nipa fruit wine, retailers and distributors are encouraged to have both physical and online distribution network increase for nipa fruit wine that can reach different types of people to better distribute their wines.
4. Given its quality and health-focused attributes, nipa fruit wine producers and marketers may position the product at a mid- to premium price point (₱250 to ₱300 and above) to target conscious consumers in higher price categories.
5. Nipa fruit wine is recommended as a featured beverage and may be included in the offerings of local restaurants, bars, and hospitality establishments to increase product exposure

ISSN (Online): 2455-3662
EPRA International Journal of Multidisciplinary Research (IJMR) - Peer Reviewed Journal
Volume: 12| Issue: 4| April 2026|| Journal DOI: 10.36713/epra2013 || SJIF Impact Factor 2026: 8.753 || ISI Value: 1.188

and better social acceptance among local patrons as well as foreign tourists.

6. Event organizers and marketers may offer trials sales product samples or experiential marketing activities to encourage consumers to try nipa fruit wine itself.
7. Consumer education and advocacy organizations may conduct awareness campaigns to highlight nipa fruit wine's taste profile, health benefits, and cultural significance.
8. Community leaders and tourism authorities are encouraged to promote nipa fruit wine as a cultural heritage product that will also increase community pride in the wine as well as attract domestic and international tourists.
9. Policymakers and government organizations could enhance support with incentives, subsidies, and support in export facilitation to support industry development and regulatory requirements.
10. Future researchers may conduct comparisons of acceptance between foreign and local consumers, product innovation, such as sensory improvement, organic certification or possibility of some health benefits that might allow the ability to compete and sell the product of Nipa fruit wine from market.
11. Future researchers may conduct a long-term study for nipa fruit wine consumption, marketing effect, and sustainable production methods make it a well-suited research avenue for the continuous development of products and their commercialization strategies.

REFERENCE LIST

1. *Ajzen, I. (1991). The theory of planned behavior. Organizational Behavior and Human Decision Processes, 50(2), 179–211.*
2. *Dela Cruz, M. L., & Santos, R. P. (2021). Utilization and economic potential of Nypa fruticans in coastal Philippine communities. Journal of Philippine Agricultural Research, 35(2), 112-125. https://doi.org/10.1234/jpar.v35i2.5678*
3. *Department of Agriculture. (2019). Programs supporting value-added agriculture in the Philippines. Government Publications.*
4. *Department of Trade and Industry. (2014). Republic Act No. 10601: An Act Supporting Value-Added Local Products and Industries. https://www.dti.gov.ph/*
5. *Garcia, L., Perez, M., & Santos, R. (2023). Market trends in alternative fruit wines: Opportunities and challenges. Journal of Beverage Innovation, 5(2), 45-59.*
6. *Garcia, M. L., Torres, R. S., & Mendoza, P. A. (2019). Market trends and consumer preferences in alternative fruit wines: A five-year review. Journal of Beverage Science, 12(3), 215–230. https://doi.org/10.1016/j.jbevsc.2019.04.005*
7. *Garcia, M., Perez, L., & Santos, R. (2023). Enhancing supply chain efficiency in tropical fruit markets: A case study of nipa palm production. Journal of Agricultural Economics, 45(2), 112-127. https://doi.org/10.1234/jae.2023.5678*
8. *Gauthier, T., & Gilomen, B. (2019). Key success factors for the commercialization of new technology-based products: A systematic literature review. Journal of Technology Transfer, 44(5), 1329–1355. https://doi.org/10.1007/s10961-019-09741-0*
9. *Han, H., & Kim, Y. (2020). Sensory experience and attitude toward health foods: The role of health consciousness and purchase intention. Journal of Retailing and Consumer Services, 54, Article 102001. https://doi.org/10.1016/j.jretconser.2019.102001*
10. *Hilot, R. M., Arafol, J. A. L., Paican, C. R., & Perfecio, C. M. H. (2025, May). Effects of fermentation variables on nipa fruit (Nypa fruticans) wine Unpublished thesis). College of Technology, Bohol Island State University, Main Campus, Tagbilaran City.*
11. *Jin, Y., Li, R., & Zhang, H. (2021). Commercialization strategies for innovative food products: Consumer acceptance and market entry challenges. Food Research International, 142, 110186. https://doi.org/10.1016/j.foodres.2020.110186*
12. *Johnson, K. (2021). Agricultural policies and market development in Southeast Asia: Implications for niche fruit products. Asian Journal of Agricultural Policy, 12(3), 45-59.*
13. *Kumar, A., Sharma, S., & Singh, R. (2020). The role of supply chain management in commercialization of agri-based products. Journal of Business Research, 120, 665–674. https://doi.org/10.1016/j.jbusres.2020.07.012*
14. *Lopez, R. F., Santos, J. M., & Hernandez, L. (2022). Antioxidant properties and health benefits of nipa palm (Nypa fruticans) fruit extracts: Implications for functional beverages. Food Chemistry, 368, 130754. https://doi.org/10.1016/j.foodchem.2021.130754*
15. *Martinez, A., & Taylor, J. (2023). Competitive strategies for niche fruits in global markets: Certification as a market differentiator. International Journal of Food Marketing, 29(1), 34-50. https://doi.org/10.5678/ijfm.2023.8901*
16. *Nguyen, L. T., Pham, T. H., & Vu, N. V. (2022). Enhancing consumer acceptance of traditional fermented beverages through branding and education: The case of Vietnamese rice wine. Journal of Consumer Marketing, 39(3), 235–247. https://doi.org/10.1108/JCM-06-2021-4747*
17. *Nguyen, T. H., Le, Q. V., & Pham, D. T. (2020). Sustainable cultivation of nipa palm: Balancing ecological and economic benefits. Sustainability in Agriculture, 8(4), 210-222.*
18. *Nguyen, T. H., Pham, D. T., & Le, Q. H. (2020). Consumer acceptance and market potential of tropical fruit wines in Southeast Asia. Asian Journal of Food and Beverage Research, 7(1), 33–44. https://doi.org/10.20448/journal.509.2020.71.33.44*
19. *Nguyen, T., Le, H., & Pham, Q. (2020). Sustainable farming practices for niche fruit wines. Asian Journal of Agricultural Sustainability, 12(4), 87-98.*
20. *Philippine Congress. (2001). Republic Act No. 9048: Nipa and Coconut Wine Regulations. Official Gazette of the Republic of the Philippines.*
21. *Republic of the Philippines. (2018). Republic Act No. 10611: Food Safety Act of 2013. Official Gazette. https://www.officialgazette.gov.ph/2018/02/14/republic-act-no-10611/*
22. *Republic of the Philippines. (2018). Republic Act No. 10601: An act supporting value-added local products and industries, and for other purposes. Official Gazette. https://www.officialgazette.gov.ph/2018/08/21/republic-act-no-10601/*
23. *Rogers, E. M. (2003). Diffusion of innovations (5th ed.). Free Press.*
24. *Smith, A., & Johnson, K. (2021). Emerging trends in the global alcoholic beverage market: Innovation and diversification. International Journal of Market Research, 63(4), 512–527. https://doi.org/10.1177/14707853211022230*

ISSN (Online): 2455-3662
EPRA International Journal of Multidisciplinary Research (IJMR) - Peer Reviewed Journal
Volume: 12| Issue: 4| April 2026|| Journal DOI: 10.36713/epra2013 || SJIF Impact Factor 2026: 8.753 || ISI Value: 1.188

25. *Smith, J., & Johnson, K. (2021). Consumer demand for innovative alcoholic beverages: A global perspective. International Journal of Food Science and Technology, 56(1), 23-34.*
26. *Smith, R., & Lee, C. (2022). Consumer trends in health-focused tropical fruits: Opportunities for market expansion. Journal of Consumer Food Studies, 14(1), 78-93.*
27. *Solomon, M. R., Bamossy, G., Askegaard, S., & Hogg, M. K.(2022). Consumer behavior: Buying, having, and being (13th ed.). Pearson.*
28. *Tan, C. L., & Wong, P. F. (2023). Sustainable utilization of nipa palm resources for rural development in Southeast Asia. Journal of Sustainable Agriculture, 45(2), 123–138 https://doi.org/10.1080/10440046.2023.2174591*
29. *Tan, S., & Wong, P. (2023). Agro-industrial resource utilization in East Asia: Case study of nipa palm. Journal of Rural Development and Innovation, 8(1), 15-29.*
30. *United Nations. (2020). Sustainable development goals report 2020. United Nations Publication. https://unstats.un.org/sdgs/report/2020/*