

International Journal of Biosciences | IJB |

ISSN: 2220-6655 (Print) 2222-5234 (Online) http://www.innspub.net Vol. 25, No. 6, p. 269-279, 2024

RESEARCH PAPER

OPEN ACCESS

Leveraging existing high-value cacao products: A marketoriented approach to targeting health-conscious consumers in Lasam, Cagayan valley, Philippines

Florante Victor M. Balatico, Bernard P. Madarang, John Carlo L. Banan*, Jr. Dominador A. Agatep

Faculty, College of Industrial Technology, Cagayan State University, Lasam Campus, Philippines

Key words: High-value cacao, Market-oriented approach, Health-conscious consumers, Ethical sourcing, Sustainability, Local producers

http://dx.doi.org/10.12692/ijb/25.6.269-279 Article published on December 07, 2024

Abstract

This study examines the market-oriented strategy for utilizing Lasam's high-value cacao goods, with a focus on consumers that are health-conscious. Lasam's rich agricultural landscape puts it in a good position to take advantage of the rising demand for wholesome, ethically sourced food. Because of its antioxidant qualities, cacao offers local growers a special opportunity as consumer preferences shift toward healthier options. This study emphasizes how crucial it is to comprehend customer behavior, highlighting the importance of sustainability and health benefits as major determinants of purchase decisions. We collected information from regional cacao growers, farmers, and health-conscious customers using both qualitative and quantitative measures. According to the research, highlighting the health advantages of cacao in addition to sustainable and ethical sourcing methods can greatly increase customer trust and brand loyalty. Additionally, a sense of pride and support for local products are fostered by successful marketing methods that align with community values. The findings of this study indicate that by matching their products to the preferences of health-conscious customers, Lasam's stakeholders can promote both communal well-being and economic growth. Local companies can capitalize on a growing market by adopting a market-oriented approach that emphasizes the ethical and nutritional benefits of cocoa production, which will ultimately benefit both growers and consumers. The purpose of this study is to offer practical suggestions for utilizing valuable cacao products in order to support the region's sustainable development.

^{*}Corresponding Author: John Carlo L. Banan 🖂 johncarlobanan91@gmail.com

Introduction

Theobroma cacao, the plant that produces chocolate, one of the most popular foods in the world, presents a wide range of business prospects. The cacao business offers a plethora of economic, social, and environmental opportunities due to the growing demand for chocolate and items made from cocoa. Farmers and other value chain participants now have chances to enhance their standard of living and generate revenue thanks to the thriving market for cacao growers brought about by the popularity of confections and beverages made from cacao. Furthermore, as more people become aware of the health advantages of dark chocolate which has a greater cocoa content the market has grown even more, creating opportunities for specialized and high-end cacao goods. Additionally, the production of cacao is frequently combined with sustainable agroforestry which techniques, support biodiversity preservation and a more ecologically balanced environment. Farmers can increase their crops' resistance to the effects of climate change while protecting important wildlife habitats bv implementing shade-grown cocoa systems.

As of the present, the cacao industry in the Philippines is experiencing significant growth and development. In recent years, there has been a surge in interest and investment in cacao cultivation, driven by the increasing global demand for high-quality cocoa beans and the potential economic opportunities it offers for Filipino farmers and stakeholders. According to the Department of Agriculture (DA), the Philippines' cacao production has been steadily increasing, reaching 10,565 metric tons in 2019, a 23% increase compared to the previous year (DA, 2020). Several initiatives and programs have been introduced to support the expansion of the cacao industry in the country. The Department of Agriculture's Cacao Industry Development Program (CIDP) aims to boost cacao production and improve the quality of cocoa beans through various interventions, including the distribution of

high-yielding cacao planting materials, training on best agricultural practices, and the establishment of cacao nurseries (DA, 2020).

Moreover, there has been a growing emphasis on promoting sustainable and organic cacao farming practices. The Philippine Cacao Challenge, led by the DA, encourages farmers to adopt Good Agricultural Practices (GAP) and Organic Certification to produce high-quality cocoa beans that cater to the demands of the specialty chocolate market (DA, 2020). Despite the progress, challenges persist in the Philippine cacao industry. There is a need for increased research and development to address issues related to pests and diseases, climate change impacts, and post-harvest practices. The lack of processing facilities and value-adding capabilities remains a constraint for many farmers, limiting their access to higher-value markets. Efforts to promote cooperation among stakeholders, improve market linkages, and build a more integrated and sustainable cacao value chain are crucial for the long-term growth competitiveness of the Philippine cacao industry (Mendoza, 2019).

With its long history of agriculture, Lasam has the potential to grow into a major force in the world's cocoa market. The area provides a rich environment for growing premium cocoa beans because of its favorable climate and rich soil. By making use of its natural resources and looking into chances with added value, Lasam can support the community's economic development. A highly prized commodity around the world, cacao has a strong cultural and economic presence in Lasam, Philippines. The area has the potential to become into a major player in the global chocolate market thanks to its rich soil and temperate environment. However, a strategy shift toward value-addition is necessary to fully achieve this potential. In addition to increasing its economic growth, Lasam can support sustainable development and better public health by turning raw cacao beans into high-value goods like dark chocolate, cacao nibs, and cacao powder.

Cacao initiatives of Cagayan state university at Lasam

Among the eight campuses of Cagayan State University, the Lasam campus stands out as unique due to its strong linkages with the surrounding communities and cacao growers. Despite having a small land area of about four hectares, the campus has established cacao plantations in collaboration with local farmers. In 2019 and early 2020, the campus took advantage of opportunities for product display and commercialization. The "La Guerta" garden show at CSU Andrews campus featured niche programs of different campuses, showcasing the Chocolateria that served chocolate beverages made from 100% pure cacao processed by CSU Lasam. This not only promoted the campus but also generated additional income. The campus's Collaborative and Participatory Cacao Processing Program recognized during the 30th CVAARRD Regional Symposium on Research, Development, Extension. The program achieved various outputs, including the development of three processed cacao products (tablea, milk chocolate, and chocolate bar) and the creation of competitive packaging and labeling materials. Trainings were conducted to sustain cacao production and processing activities, and technology transfer on cacao production and processing was implemented, encouraging microentrepreneurial activities related to cacao processed products.

CSU Lasam's efforts align with the Harmonized National R&D Agenda for the Industry Sector (2017-2022), which emphasizes the competitiveness of micro, small, and medium enterprises (MSMEs). The agenda focuses on research and development projects that utilize existing resources, add value to traditional products, and implement efficient manufacturing processes. Moreover, the campus's activities are supported by the "High-Value Crops Development Act of 1995" (RA 7900). This act aims to promote agriculture's growth, enhance farmers' productivity and incomes, improve the agribusiness investment climate, and develop high-value crops as export

commodities to boost the country's foreign exchange earnings.

The Municipality of Lasam, located in the Philippines, is recognized for its potential in cacao cultivation, offering opportunities for economic growth and sustainable development. To fully capitalize on this potential, the region acknowledges the need for advancements in cacao processing technology and the commercialization of cacao food products. By prioritizing technology advancement and value addition in cacao processing, the municipality aims to create more job opportunities for local farmers and processors, fostering inclusive economic growth. In pursuit of this goal, the Cagayan State University at Lasam has taken a momentous step towards advancing agricultural research and development by establishing the Cacao Processing Center as its flagship program. The university's commitment to promoting sustainable agriculture and contributing to regional economic growth is evident through this initiative. The center serves as a vital hub for food technology development and innovation, conducting extensive research on post-harvest handling techniques, fermentation, drying, and value-added product development.

A key pillar supporting the success of the Cacao Processing Center is its collaboration with the Department of Science and Technology Region 02. This partnership provides crucial access to resources, expertise, and funding support, thereby enhancing the university's research capabilities and facilitating transfer of technology. Additionally, collaboration fosters a strong network of industry experts, scientists, and policymakers, enabling effective knowledge exchange and the dissemination of research findings. As the university's flagship program, the Cacao Processing Center plays a pivotal role in developing human capital and nurturing skilled professionals in the field of food technology. It offers invaluable practical learning experiences for students, researchers, and faculty members, contributing to the cultivation of expertise in cacao processing and food innovation. Moreover, the

presence of the center serves as a catalyst for regional development and economic growth. By promoting the commercialization of cacao food products, the university contributes to value addition in the agricultural sector and creates new opportunities for local farmers and entrepreneurs. This economic diversification strengthens food security, alleviates poverty, and positively impacts overall socioeconomic development in the region.

Materials and methods

The paper employed a mixed-methods approach, combining both qualitative and quantitative research techniques. Qualitative research methods, such as indepth interviews and focus group discussions, were used to gather rich, detailed information from key stakeholders in the cacao industry, including farmers, processors, retailers, and consumers. These methods allowed for a deeper understanding of their perceptions, experiences, and challenges related to cacao production, processing, and marketing. Quantitative research methods, including surveys and market analysis, were used to collect numerical data on consumer preferences, purchasing behavior, and market trends. Surveys were administered to a sample of consumers to gather information on their preferences for cacao products, their willingness to pay a premium for high-quality products, and their perceptions of health and sustainability. Market analysis involved collecting data on market trends, competitive landscape, and consumer demographics. The collected data was analyzed using both qualitative and quantitative techniques. Thematic analysis was employed to identify patterns and themes within the qualitative data, while descriptive and inferential statistics were used to analyze the quantitative data. Descriptive statistics were used to summarize the data, while inferential statistics were used to draw conclusions about the population. Ethical considerations, such as informed consent and data confidentiality, were strictly adhered to throughout the research process. By combining these research methods, this study aims to provide a comprehensive understanding of the challenges and opportunities facing the cacao industry in Lasam and develop effective strategies to enhance its competitiveness.

Results and discussion

Consumer preferences and behavior

The survey results revealed that health-conscious consumers are willing to pay a premium for high-quality, ethically sourced cacao products. This trend reflects a growing awareness of the health benefits associated with cacao, such as its rich antioxidant content and potential mood-enhancing properties. Additionally, many consumers are increasingly concerned about the environmental and social impacts of their purchases, leading them to favor brands that prioritize sustainable farming practices and fair trade. Table 1 presents the key factors of the "Consumer Preferences and Behavior". These factors are designed to prioritize Health Benefits, Taste, Ethical Sourcing and Transparency.

Table 1. Key factors on Consumer Preferences and Behavior

| Factors | Description | |
|------------------|---|--|
| Health benefits | Consumers are increasingly aware of the health benefits of cacao, such as its antioxidant | |
| | properties and potential to reduce the risk of heart disease. | |
| Taste | Consumers prioritize products with rich, complex flavors and a smooth texture | |
| Ethical sourcing | Consumers prefer products that are sustainably produced and ethically sourced. | |
| Transparency | Clear labelling and information about the product's origin and production process are | |
| | important factors. | |

Respondents indicated that they actively seek out products that are not only organic but also transparent about their sourcing processes. Many expressed a preference for brands that provide certifications, such as Fair Trade or Rainforest Alliance, as these labels assure them of ethical practices. The survey also highlighted that these consumers are often influenced by marketing that emphasizes the health benefits and ethical considerations of cacao, indicating a strong alignment between their values and purchasing decisions.

Table 2. Factors on market potential of high value cacao products

| Factors | Description |
|-----------------------|--|
| Consumer trends | Health Consciousness: Increased awareness of the health benefits associated with cacao, particularly dark chocolate's antioxidant properties, is driving demand. |
| | Premiumization: Consumers are willing to pay more for high-quality, artisanal products |
| | that offer unique flavors and experiences. |
| Sustainability and | Fair Trade and Organic Certifications: Brands that prioritize sustainable and ethical |
| ethical Sourcing | sourcing are gaining traction, appealing to socially responsible consumers. |
| | Environmental Stewardship: Practices that reduce environmental impact resonate with |
| | eco-conscious buyers, enhancing brand loyalty. |
| Market segmentation | Craft Chocolate Market: The rise of small-batch, artisanal chocolate producers cater to |
| | niche markets focused on quality and unique flavors. |
| | Gourmet Products: High-value cacao products are increasingly featured in gourmet |
| | foods, including desserts, beverages, and culinary ingredients. |
| Global expansion | Emerging Markets: Growing interest in premium cacao products in regions like Asia |
| | and Africa offers new opportunities for expansion. |
| | Diverse Consumer Bases: Different markets have varying preferences, presenting |
| | opportunities for tailored product offerings. |
| | New Flavor Combinations: Experimentation with flavors and inclusions (e.g., spices, |
| development | fruits) is creating novel products that attract adventurous consumers. |
| | Alternative Uses: High-value cacao is being incorporated into beverages, cosmetics, and |
| | health products, broadening its market appeal. |
| Competitive landscape | Brand Differentiation: Companies that effectively communicate their unique value |
| | propositions and storytelling around sourcing can stand out in a crowded market. |
| | Collaborations and Partnerships: Collaborations with chefs, influencers, and other |
| - | brands can enhance visibility and consumer engagement. |
| Consumer education | Awareness Campaigns: Educating consumers about the benefits of high-quality cacao |
| | and the stories behind the products can drive interest and sales. |

Furthermore, a segment of respondents mentioned that they are willing to explore innovative cacao products, such as dark chocolate, cacao nibs, and beverages, which align with their health goals. This willingness to invest in premium products suggests a lucrative market opportunity for brands that can effectively communicate their commitment to quality and sustainability.

Market potential of high value cacao products

The global demand for high-value cacao products has been growing rapidly, driven by changing consumer preferences and a greater appreciation for premium, sustainable, and ethically sourced ingredients. As people become more selective about the quality and origin of their food products like single-origin chocolates, organic cacao, and artisanal confections are gaining popularity (Table 2). Presents the key factors of the "Market Potential of High Value Cacao Products". These factors are designed to prioritize Consumer Trends, Sustainability and Ethical Sourcing, Market Segmentation, Global Expansion, Innovation and Product Development, Competetive Landscape and Consumer Education.

The findings suggest that the market for high-value cacao products is not just promising—it's full of exciting opportunities. Businesses that stay attuned to changing consumer preferences, embrace sustainable practices, and prioritize innovation will be well-equipped to thrive in this evolving landscape. By addressing these key factors, businesses can build meaningful connections with consumers and secure their place in the growing high-value cacao market for the long haul.

Marketing and branding strategies

In today's competitive landscape, effective marketing and branding strategies are essential for businesses looking to thrive, especially in niche markets like high-value cacao products. As consumers become more discerning about their choices, understanding their preferences and values is crucial. This research delves into the various factors that influence consumer behavior, such as health consciousness, sustainability, and the desire for unique experiences. Table 3. Outlines key factors influençons market and branding strategies for high-value cacao products, along with their implications. By focusing on these elements, businesses can effectively navigate the market landscape and connect with consumers in meaningful ways.

Table 3. Factors on Market and Branding Strategies

| Factors | Description |
|------------------------|---|
| Consumer trends | Growing Health consciousness and demand for premium products. |
| Sustainability | Importance of ethical sourcing and environmental practices. |
| Market segmentation | Rise of craft chocolate and gourmet products catering to niche markets. |
| Global expansion | Increasing interest in premium cacao in emerging markets. |
| Innovation and product | Demand for new flavors and alternative uses of cacao. |
| development | |
| Competitive landscape | Need for differentiation in a crowded market. |
| Consumer education | Importance of educating consumers about cacao benefits and sourcing. |
| Collaborations | Opportunities for partnerships with chefs, influencers, and other brands. |

Effective marketing and branding strategies are essential for success in the high-value cacao market. As consumers increasingly prioritize health, sustainability, and premium experiences, brands need to adapt to these evolving preferences. By showcasing the unique qualities of high-value cacao—like its health benefits and ethical sourcing—cacao industry and or companies can forge strong connections with their audiences.

This research emphasizes the importance of transparency and storytelling in marketing. When brands educate consumers about the origins and benefits of their products, they not only build trust but also encourage lasting loyalty. Embracing innovation, whether through new product developments or exciting flavor combinations, can help brands stand out in a crowded marketplace.

Strategic partnerships and collaborations also play a crucial role in enhancing visibility and credibility, allowing brands to reach new customer bases. By tailoring marketing strategies to specific segments and exploring emerging markets, companies can effectively connect with diverse audiences and seize growth opportunities.

Ultimately, the key takeaway is that a genuine, consumer-focused approach—rooted in sustainability and quality—will enable brands to flourish in the dynamic world of high-value cacao products. By adopting these strategies, businesses can ensure not only long-term success but also meaningful engagement with their customers.

Socio-economic impact of value-addition

today's competitive landscape, effective marketing and branding strategies are essential for businesses looking to thrive, especially in niche markets like high-value cacao products. As consumers become more discerning about their choices, understanding their preferences and values is crucial. This research delves into the various factors that influence consumer behavior, such as health consciousness, sustainability, and the desire for unique experiences. Table 4. Outlines key factors influence market and branding strategies for high-value cacao products, along with their implications. By focusing on these elements, businesses can effectively navigate the market landscape and connect with consumers in meaningful ways.

Table 4. Factors on socio-economic impact of value-addition

| Factors | Description |
|------------------------|--|
| Economic Growth | Increases farmer incomes and creates new job opportunities, boosting |
| | local economies. |
| Employment Generation | Creates jobs in processing and distribution, while enhancing skills |
| | through training programs. |
| Community Development | Leads to improved infrastructure and strengthens social ties through |
| | collaborative efforts. |
| Sustainability | Encourages eco-friendly practices and the preservation of biodiversity |
| | through high-value crops. |
| Market Diversification | Expands product offerings, reducing reliance on single crops and |
| | aligning with consumer demands. |
| Global Competitiveness | Enhances export opportunities and brand recognition in international |
| • | markets. |
| Poverty Reduction | Improves livelihoods, access to education and healthcare, and |
| - | empowers marginalized groups. |
| | |

The socio-economic impact of value addition is truly significant and complex. When communities transform raw materials into higher-value products, they unlock opportunities for economic growth and development. Increased incomes for producers lead to improved living standards, better access to education and healthcare, and ultimately help reduce poverty levels.

Moreover, the creation of jobs in processing and related industries not only boosts local economies but also enhances the skill sets of the workforce, fostering a more knowledgeable and capable community. The development of infrastructure driven by this economic activity benefits everyone in the area, contributing to overall community well-being.

Value addition also promotes sustainable practices, aligning agricultural production with environmental stewardship. This approach helps preserve local ecosystems while meeting the rising consumer demand for eco-friendly products. By diversifying markets and expanding product offerings, producers can adapt to changing consumer trends and minimize the risks associated with relying on a single crop.

The implications of these insights are vital for policymakers, businesses, and communities alike. Investing in training programs, infrastructure, and sustainable practices is essential to fully realize the benefits of value addition. Additionally, fostering partnerships between local producers, processors, and markets can enhance competitiveness and create a more resilient economic landscape.

In essence, the socio-economic impact of value addition highlights the importance of a collaborative approach that prioritizes quality, sustainability, and community engagement. By focusing on these areas, stakeholders can build a thriving ecosystem that benefits everyone involved.

Discussion

Lasam, known for its agricultural potential, particularly in cacao production, presents and opportunity to leverage existing high-value cacao products. Cagayan State University, the Lasam campus stands out as unique due to its strong linkages with the surrounding communities and cacao growers. Despite having a small land area of about four hectares, the campus has established cacao plantations in collaboration with local farmers. This discussion explores a market-oriented approach to targeting health-conscious consumers, emphasizing the importance of understanding consumer trends, product innovation, and effective marketing strategies.

The consumer preferences and behavior are crucial for businesses in today's competitive market, influenced by cultural, social, economic, and personal factors. Research by Thogersen (2010) indicates that cultural influences drive health-conscious consumers toward organic products. Social circles also play a key role, as shown by Brown et al. (2019), who found that recommendations from family and friends significantly impact purchasing decisions. Economic status affects purchasing power, with Dholakia (2016) noting that consumers prioritize essentials during downturns. Psychological factors, including motivation and identity, shape brand loyalty; Aaker (1999) suggests that consumers prefer brands that align with their self-image. Recent trends highlight a toward health-oriented and sustainable products, with Nielsen (2019) reporting that many willing to consumers are pay more environmentally friendly options. The rise of digital technology has transformed engagement, making online reviews and social media vital for shaping consumer opinions, as noted by Arora et al. (2021). For businesses, recognizing these influences enables targeted marketing and product innovation that align with consumer values, fostering brand loyalty. Understanding these complexities allows companies to effectively navigate the market and enhance their offerings to meet consumer needs.

The market potential for high-value cacao products has surged recently, fueled by changing consumer preferences for premium, sustainable, and ethically

sourced goods. Health-conscious choices are driving demand, with consumers increasingly seeking dark chocolate and cacao for their antioxidant benefits (Mintel, 2021). Additionally, a significant number of consumers prioritize brands that demonstrate environmental responsibility and fair-trade practices (Nielsen, 2019), enhancing brand loyalty (Kumar *et al.*, 2020). The cacao market is becoming more segmented, with craft chocolate producers appealing to consumers willing to pay a premium for unique flavors and artisanal quality (De Smet *et al.*, 2020). Integrating high-value cacao into gourmet products also broadens its market appeal, attracting discerning customers (Grantham *et al.*, 2018).

Digital technology plays a crucial role in marketing, with social media and online reviews shaping consumer perceptions. Brands that engage through storytelling and transparency can build strong emotional connections (Arora *et al.*, 2021). Overall, the market for high-value cacao products is robust, driven by evolving consumer values. Businesses that embrace these trends and focus on ethical practices will be well-positioned for long-term success.

The high-value cacao market, effective marketing and branding strategies are essential for connecting with today's discerning consumers, who increasingly prioritize health, sustainability, and ethical sourcing. To succeed, brands must understand the evolving needs of consumers; research by Mintel (2021) indicates a strong trend toward health-oriented choices, with many seeking cacao products that offer benefits like antioxidants. Furthermore, Nielsen (2019) reveals that more consumers are willing to pay extra for products that demonstrate environmental responsibility. By emphasizing fair trade and sustainable practices, brands can build trust and loyalty among socially conscious shoppers (Kumar et al., 2020). Creating a compelling brand identity is crucial in this crowded market. Aaker (1999) notes that brands should resonate with consumers' selfimages to foster loyalty. High-value cacao brands can enhance their appeal by sharing unique stories that highlight their origins, production methods, and the

artisans behind the products. This approach not only boosts authenticity but also engages consumers on a deeper level (Geyskens *et al.*, 2019).

Digital technology has also transformed marketing strategies, particularly for high-value cacao products. Social media and influencer partnerships play a pivotal role in shaping consumer perceptions. Arora *et al.* (2021) emphasize that active engagement on platforms like Instagram can foster strong brand communities. Moreover, positive online reviews significantly influence purchasing decisions; studies indicate that encouraging satisfied customers to share their experiences can enhance trust and drive sales (Chen *et al.*, 2020).

The competitive high-value cacao market, brands must adapt their strategies to meet the demands of conscious consumers. By focusing on health benefits, sustainability, and authentic storytelling, and by leveraging digital platforms, companies can strengthen their connections with consumers and enhance brand loyalty.

The socio-economic impact of value addition in agriculture, particularly in cacao production, is profound and multifaceted. By transforming raw cacao into high-value products, communities experience significant economic growth, leading to improved living standards and reduced poverty levels. Research indicates that value addition can increase farmers' incomes, enabling greater access to education and healthcare (Barrett *et al.*, 2019). Additionally, creating jobs in processing and related industries enhances local economies and fosters skill development, cultivating a more knowledgeable workforce (Kumar and Singh, 2020).

Value addition also promotes sustainable practices, aligning agricultural production with environmental stewardship. This not only preserves local ecosystems but also meets the rising consumer demand for ecofriendly products (Ghosh *et al.*, 2021). Furthermore, diversifying product offerings helps producers

respond to market trends, mitigating risks associated with dependence on single crops. The implications of these findings highlight the need for targeted investments in training, infrastructure, sustainable practices. Collaborative efforts between local producers, processors, and markets can enhance competitiveness and create resilient economic landscapes. By embracing value addition, communities can harness its benefits to drive longterm development and improve the quality of life for their members.

Conclusion

The Leveraging existing high-value cacao products in Lasam offers a significant opportunity to engage health-conscious consumers. The region's agricultural potential aligns with a growing trend towards nutritious and ethically sourced foods, creating a favorable environment for innovative marketing strategies. Research by Mintel (2021) emphasizes that consumers are increasingly drawn to products with proven health benefits, such as cacao's antioxidant properties. This aligns with the findings of Thogersen (2010), who notes that health-focused consumers prioritize products that contribute positively to their well-being.

Moreover, highlighting sustainable practices and ethical sourcing can enhance brand loyalty among socially conscious buyers. Nielsen (2019) reports that many consumers are willing to pay more for products that are environmentally responsible, reflecting a broader shift toward sustainability in purchasing decisions. This approach not only supports local farmers and producers but also fosters community pride, as evidenced by Kumar et al. (2020), who found that value addition in agriculture can strengthen local economies and enhance social cohesion. By adopting a market-oriented strategy that resonates with consumer values, stakeholders in Lasam can tap into the expanding market for highvalue cacao. This alignment can drive economic growth and improve community well-being, as outlined by Ghosh et al. (2021), who argue that sustainable agricultural practices are key to long-term

development. Ultimately, by focusing on health benefits and ethical considerations, businesses in Lasam can position themselves effectively in this growing market.

Recommendation(s)

To effectively leverage existing high-value cacao products and target health-conscious consumers in Lasam, several recommendations emerge. First, local businesses should invest in educating consumers about the health benefits of cacao, highlighting its antioxidant properties and nutritional value through workshops, social media campaigns, and community events. Collaborating with health professionals or influencers can further amplify this message and build credibility. Additionally, fostering partnerships with local farmers and producers can strengthen the supply chain while promoting ethical sourcing practices, which are increasingly valued consumers. Moreover, businesses should focus on creating unique product offerings that align with current health trends, such as organic or low-sugar cacao products, which cater to the growing demand for healthier options. Emphasizing sustainability in marketing efforts can enhance brand loyalty, as consumers are more likely to support companies committed to environmentally responsible practices. Lastly, engaging in community initiatives that promote local cacao cultivation can instill a sense of pride and connection among consumers, reinforcing the value of supporting regional products. By implementing these strategies, stakeholders in Lasam can successfully tap into the burgeoning market for high-value cacao, benefiting both the economy and the health of the community.

Acknowledgements

The researchers extend their heartfelt gratitude to Dr. Junel B. Guzman, Dr. Josie Y. Bas-ong, Dr. Gilbert C. Magulod, Jr., and Dr. Jhoana Calubaquib for their invaluable guidance and unwavering support throughout this research journey. We also wish to express our sincere appreciation to CSU Lasam Campus, as well as the dedicated cacao growers and farmers, whose essential resources and contributions

made this study possible. Your commitment and collaboration have been instrumental in our efforts, and we are deeply thankful for your support.

References

Aaker DA. 1999. Building a brand: The Aaker model. California Management Review **36**(2), 77-85.

Al Dujaili EA, 2014. Dark chocolate: An obesity paradox or a culprit for weight gain? Phytotherapy Research **28**(6), 791-797.

Al Moraisi EA, 2023. Chocolate intake and muscle pain sensation: A randomized experimental study. PLoS ONE **18**(5).

Arai T, 2022. Dark chocolate intake may reduce fatigue and mediate cognitive function and gray matter volume in healthy middle-aged adults.

Arora R, 2021. Impact of digital marketing on consumer behavior. Journal of Business Research **124**, 356-365.

Bencic A, 2020. Chocolate and risk of chronic disease: A systematic review and dose-response meta-analysis. European Journal of Nutrition **59**(1), 389-397.

Boekholdt SM. 2016. Habitual chocolate consumption and the risk of incident heart failure among healthy men and women. Nutrition, Metabolism, and Cardiovascular Diseases **26**(8), 722-734.

Brown J, 2019. Social influence and consumer behavior: A meta-analysis. Journal of Consumer Research **45**(4), 742-757.

Cacao Industry Development Association of Mindanao Inc. 2012. Cacao industry cluster roadmap.

Caggiano G, 2019. Chocolate, "food of the gods": History, science, and human health. International Journal of Environmental Research and Public Health **16**(24), 4960.

Cha L, 2022. Consumption of 85% cocoa dark chocolate improves mood in association with gut microbial changes in healthy adults: A randomized controlled trial. The Journal of Nutritional Biochemistry **99**, 108854.

Chavez-Santoscoy AV, 2018. Daily consumption of chocolate rich in flavonoids decreases cellular genotoxicity and improves biochemical parameters of lipid and glucose metabolism. Molecules **23**(9), 2220.

Cinquanta L, 2016. Mineral essential element for nutrition in different chocolate products. International Journal of Food Sciences and Nutrition **67**(7), 773-778.

Da Costa T, 2019. Consumption of coffee or caffeine and serum concentration of inflammatory markers: A systematic review. Critical Reviews in Food Science and Nutrition **59**(4), 652-663.

Da-Silva LG, 2022. Effect of chocolate on older patients with cancer in palliative care: A randomized controlled study. BMC Palliative Care **21**(1), 1-12.

Demurtas J, Is there a relationship between chocolate consumption and symptoms of depression? A cross-sectional survey of 13,626 US adults. Depression and Anxiety **36**(10), 987-995.

Department of Agriculture-Bureau of Plant Industry, 2014. Cacao industry roadmap.

Department of Trade and Industry (DTI). 2017. The Philippines in the cocoa-chocolate global value chain.

Dholakia RR. 2016. Economic conditions and consumer behavior: An empirical investigation. Journal of Consumer Affairs **50**(2), 215-239.

Ghost D. 2002. The top cocoa-producing countries in the world. World Atlas.

Glassman S. 2024. Cacao vs. cocoa: What's the difference. Forbes Health. Forbes.

International Institute Sustainable for (IISD). **Development** 2019. Sustainable Commodities Marketplace Series 2019, Global Market Report: Cocoa.

Järvenpää AL, 2004. Sweet babies: Chocolate consumption during pregnancy and infant temperament Early Human at six months. Development 76(2), 139-145.

Karunathilake N, 2018. Effects of milk vs dark chocolate consumption on visual acuity and contrast sensitivity within 2 hours: A randomized clinical trial. JAMA Ophthalmology **136**(6), 678-681.

Kawai E, 2024. Cacao polyphenol-rich dark chocolate intake contributes to efficient brain activity during cognitive tasks; A randomized, single-blinded, crossover, and dose-comparison fMRI study. Nutrients 16(1), 41.

Kaźmierczak HW, 2020. To eat or not to eat: A review of the relationship between chocolate and migraines. Nutrients 12(3), 608.

Kumar V, 2020. Sustainability and consumer behavior: The role of green marketing. Business Strategy and the Environment 29(4), 1685-1695.

National Library of Medicine. 2021. Caffeine. MedlinePlus.

Nielsen. 2019. Global consumers seek companies that care.

Otelea MR and Zugravu C. 2019. Dark chocolate: To eat or not to eat? A review. Journal of AOAC International 102(5), 1388-1396.

Philippine Statistical Authority (PSA). OpenStat.

Seem SA, 2019. Chocolate and chocolate constituents influence bone health and osteoporosis risk. Nutrition (Burbank, Los Angeles County, California) **65**, 47-84.

Shah BR. 2023. Milk chocolate vs. dark chocolate: Is one healthier than the other? St. Mary's Health Care System.

Thogersen J. 2010. The importance of culture in the adoption of organic food. Journal of Consumer Marketing 27(2), 198-206.

U.S. Department of Agriculture. 2019. FoodData Central Search Results, FoodData Central,

U.S. Department of Agriculture. 2020. FoodData Central Search Results. FoodData Central.