

Customer Experience of Filipino Buffalo Dairy Product Resellers amid COVID-19

Estephania P. De Gracia¹ & Jyro B. Triviño²

¹University of the Philippines Los Baños, ²Ateneo de Manila University

Email: epdegracia@up.edu.ph, jtrivino@ateneo.edu

Abstract

This study focused on the twenty resellers of buffalo dairy products amid the COVID-19 pandemic. It aims to discover the pivotal factors impacting resellers' customer experience. Using quantitative and qualitative data gathering methods, pricing emerged as a critical factor when the cost for retail attracted resellers despite potential challenges. Reasonable pricing aligned with product value bolstered favorable opinions of the brand. However, production insufficiency led to frequent out-of-stock scenarios, impacting customer satisfaction and retention. Meeting reseller demand proved instrumental in shaping positive experiences. We underscore the significance of pricing strategies and production capacity in influencing reseller experiences, but brand value, social responsibility, and service performance were also significant. We shed light on the intricate interplay among pricing, product quality, and supply chain efficiency during the pandemic-induced market shifts from individual customer focus to resellers, offering actionable insights for businesses navigating similar landscape.

Keywords: customer experience, product reseller, buffalo dairy products, Covid-19

1. Introduction

A hub for dairy farmers to showcase innovation and sell their products was established in a southern province of the Philippines. The goal is to boost farmers' opportunities by connecting them to the business market. Still, challenges like low milk production and supply chain disruptions, exacerbated by the pandemic, have affected their operations. Restricted movement during lockdowns hindered customer access, decreasing sales by around 40% by 2020. Despite these setbacks, the dairy hub persists in collaborating with resellers to offer quality milk products to customers.

It shifted its target market and customer base due to Covid-19 restrictions. Formerly serving direct customers, they now cater primarily to resellers. The pandemic prompted them to adapt their market strategies and operational focus. Challenges such as power outages and health concerns forced a ten percent price reduction. Insufficient milk production at the start of the supply chain also disrupted their entire process, impacting production and sales. The decision to operate during the pandemic significantly impacts businesses, especially regarding crisis adaptation. They not only endured but thrived amid the economic downturn, affecting the experience of their reseller-based market.

This study investigated how operational factors like price, service, product availability, and local food support influenced customer experience. It analyzed success levels, effort, and

information availability. The outcomes can assist sole proprietors and buffalo dairy resellers in evaluating pandemic effects and identifying emerging best practices in this industry.

2. Literature Review

Smallholder dairy buffalo farming in the Philippines supports local farmers and bolsters the agricultural sector. The country's dairy industry comprises two sectors: milk powder and liquid milk, with imported and locally produced varieties. A 1.55% increase in dairy production in 2019 stemmed from increased animal inventory, additions to milking lines, and higher farm gate prices. Institutions like the Philippine Carabao Center (PCC) develop buffalo production technologies through training and extension programs to enhance farmers' economic efficiency and milk productivity.

The Philippine Statistics Authority estimated the 2020 starting inventory of dairy cattle, mainly carabao, with slight growth from new breed imports and births. Despite local milk supply growth, unforeseen events have changed the dairy industry.

Dairy products are the country's third-largest import, following wheat and soybean meal. The Department of Agriculture (DA) prioritizes bolstering the local dairy industry by increasing fresh milk availability. Hernandez et al. (2022) forecast a slight decrease in 2020's total dairy imports to 2,800 million metric tons (LME) due to reduced demand from the COVID-related economic slowdown. Lockdowns have led to a decline in liquid milk imports, notably affecting food service establishments like coffee shops. Saludes and Takeshita (2021) highlight that domestic milk production stood at 22.76 MMT (LME), amounting to just 1% of the ready-to-drink milk market, indicating heavy reliance on imported dairy products in the Philippines.

In 2017, the Philippines consumed 22 kg of milk per person and 2,486 million metric tons of dairy products despite challenges impacting the buffalo population. The country's milk production stood at 22.76 million metric tons, mostly from smallholder farmers in rural areas facing high poverty rates (34.3%) and low daily incomes below U\$7. Villagers have upgraded carabaos or crossbred dairy buffaloes to yield higher-quality buffalo milk. However, registered dairy buffaloes only accounted for 0.64% of the 2.88 million carabao population (Saludes & Takeshita, 2021).

Das et al. (2021) highlight COVID-19's substantial economic impact on the dairy industry, citing a shortage of inputs as the primary issue for farmers. Transportation challenges and labor issues further compounded difficulties. Rising inventory costs coincided with declining revenues. Movement restrictions notably affected dairy product exports. Despite this, research indicates a 36% increase in dairy product consumption during the pandemic.

Cornell (2022) noted that Philippine farmers adjusted farming methods due to climate change, influenced by past experiences, social interactions, household skills, and available resources. With limited choices, farmers increasingly pursue less risky income sources like water buffalo dairying. Local adaptation involves both socioeconomic strategies and community dynamics. The study recommends considering programs like the Carabao Development Program (CDP)

for regional socioeconomic growth. It suggests factors to assess water buffalo dairying as a resilient income source amidst climate changes.

A study by Dulin et al. (2019) on distribution channels in the Northern Philippines reveals that carabao milk is the primary source, distributed via cooperatives. Milk candy and pasteurized milk are top-selling dairy products. Women play a significant role in marketing, especially in processing. The marketing channel involves producers, processors, retailers, and consumers in Cagayan.

Cooperative members' productivity improves through regular training and extension services, providing vital information for milk production and marketing. Tailored interventions have enhanced farming and animal husbandry practices. Quilloy and Sumalde (2015) echo this outcome by highlighting cooperatives' crucial role in enhancing agricultural marketing efficiency, benefiting small-scale farmers economically. Sufficient resources and investment capacities are imperative to support their operations in the Philippines to ensure productive, competitive, and sustainable performance, especially for micro cooperatives.

A study by Poudel et al. (2020) on COVID-19's impact on food and agriculture reveals challenges in storing perishable produce at suitable temperatures, causing quality issues and increased production costs. Milk and dairy products are hardest hit, with closures of processing facilities leading to reduced supply and farmers having to discard their products. Dairy businesses have adapted to maintain fresh milk supply amid the pandemic. Despite Filipinos not being heavy milk consumers, their sales surpass the national average, generating over a billion dollars annually, mainly from Metro Manila. Lockdown measures since March 2020 have hindered movement and impacted milk sales, resulting in a 3% income decrease for dairy farmers since April, affecting daily income sources in the value chain.

Despite competitive supply and demand in the dairy market, milk processors innovate to sell products, prompting government initiatives to ensure local milk sufficiency, primarily challenged by buffalo population limitations. Businesses selling dairy buffalo products face performance impacts, exemplified by price reductions and a shift towards resellers. Exploring customer experiences amid pandemic-related barriers is necessary to understand how they shape their buying experiences. There needs to be a research gap in comprehensively exploring customer experiences in COVID-19, suggesting potential additional factors. Moreover, more localized research on the dairy industry is needed beyond this study's limited local literature, potentially aiding academics seeking broader insights.

3. Research Method

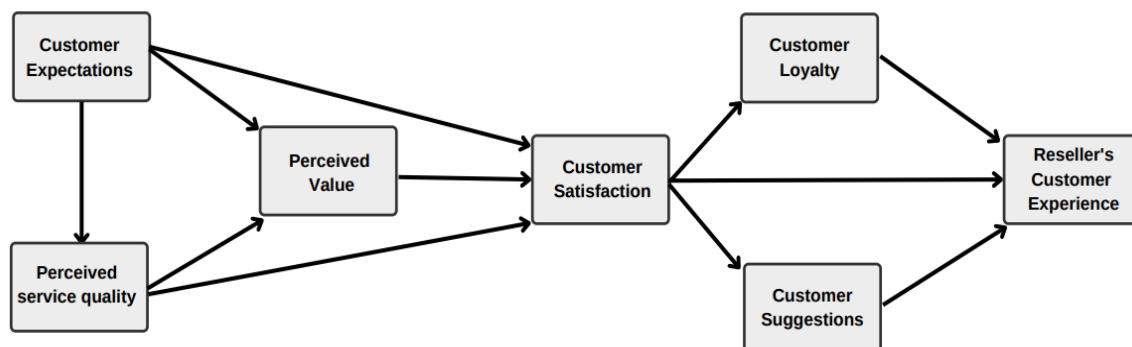
The research utilized a descriptive method combining qualitative and quantitative approaches to gather data from resellers of a dairy hub in the Southern Philippines during the pandemic. This study broadly addressed research questions as an exploratory endeavor, marking its experimental nature as the first to gather primary data during COVID-19. The chosen approach aimed for a comprehensive understanding, ensuring thoroughness, minimal bias, and reduced data collection and analysis interpretation errors.

The study analyzed factors shaping resellers' experiences, focusing on buying patterns, transaction costs, product preferences, service quality, and employee evaluations. Primary data were collected between 2020 and mid-2021, including online surveys and telephone interviews linking customer experience with business challenges and opportunities.

Due to COVID-19 restrictions, the sample comprises resellers from pre-pandemic and pandemic periods who visit the dairy hub to purchase products for resale or rebranding. As the population size is unknown, non-probability sampling was used, selecting 20 resellers due to the need for an official database. Data collection employed convenience sampling, selecting readily available respondents. Utilizing Qualtrics, a web-based software, enabled statistical analysis without programming expertise.

Conceptual Framework. Customers are vital to any organization, and businesses work tirelessly to ensure their satisfaction. The pandemic has changed customer experiences and perceptions of services, leading to a need for businesses to expand physical spaces for social distancing. Online shopping is now highly favored, prompting substantial changes in the consumer goods industry's operations. Figure 1 illustrates this issue's framework visually.

Figure 1. *Conceptual framework*



Throughout history, businesses have recognized the significance of customers. Positive interactions foster repeat business, emphasizing the need to manage customer experiences for a customer-centric approach. Enhancing touchpoints in the customer journey adds value, highlighting the importance of understanding every step of their interaction.

Wong and Dioko (2013) assert that customer expectations mediate between customer satisfaction and its precursors—perceived service quality and value—explicitly defined by the resellers' perceived success, effort, and emotion.

Touchpoints like product, price, place, and promotion were considered. The figure illustrates the link between customer expectation, perceived service quality, perceived value, and satisfaction. The pandemic impacted the dairy hub's supply chain, which was ongoing from pre-pandemic issues. Customer satisfaction affects loyalty, crucial for adherence, as highlighted in previous studies (Barsky & Labagh, 1992; Smith et al., 1999; Hallowell, 1996).

Customer satisfaction drives brand loyalty and boosts sales and profits (Sharma et al., 2020). It acts as a link between loyalty and service quality. The pandemic influenced customer experience, shaped by the business's marketing strategies, leading to suggestions from resellers for improvement. Customer experience encompasses customer service, advertising, packaging, product quality, usability, and reliability, contributing to customer satisfaction. It is evaluated through specific drivers such as service quality, product excellence, and pricing.

4. Finding and Discussion

Residential address data indicates that 15 out of 20 resellers, constituting 75%, reside near the dairy hub's location. In contrast, five resellers, or 25%, reside outside the province. This aligns with previous studies emphasizing the significance of business location for success factors like accessibility and customer efficiency (Alli et al., 1991; Ghosh et al., 1995).

The researchers incorporated reselling years alongside geographic data for a comprehensive profile. All respondents currently resell, with varying start years: one in 2018, three (15%) in 2019, and the majority (45%) in 2020, despite pandemic challenges and restrictions. Notably, seven resellers (35%) began operations in 2021. Out of 18 respondents surveyed, 90% reported increased customer demand for dairy products during the pandemic. Conversely, two resellers indicated a decrease in demand.

Data from 14 responses demonstrates that 70% of resellers often find product supply inadequate during purchases. Only six respondents (30%) reported consistently fulfilling their product demands. Some acknowledged sufficient supply when ordering in advance. However, most observed an insufficiency for impromptu or walk-in purchases, necessitating more to meet their needs.

The location of the dairy hub poses a significant challenge due to government-mandated lockdowns, hindering access for sales while risking product spoilage and economic loss. To mitigate this, they expanded to resellers, initially local to the province, later attracting interest from outside. Establishing a designated pick-up point facilitated sales, with resellers playing a pivotal role in operations. Amid pandemic challenges and local competition, the dairy hub reduced prices by 10% as part of a competitive strategy, aligning with the law of demand theory, which links price to demand. The researcher aims to assess how price changes impact customer emotions and satisfaction among the surveyed 20 resellers.

Among the 20 responses, 17 resellers (85%) indicated that the 10% price decrease was adequate, while three (15%) disagreed. Pricing significantly influences customer experience, impacting strategic decisions and design. Customer-driven pricing revolves around the perceived value of goods or services, assuming customers pay when the value surpasses the

cost. Prices set customer expectations—higher prices entail higher expectations. The pricing model affects customer perception, where most resellers expressed contentment with the product pricing.

The researchers also assessed the pandemic's impact on resellers' income, customer demand, and perceptions of the dairy hub's service. Apart from assessing dairy product availability for orders, the study collected and analyzed perceptions regarding transportation materials, potentially incurring extra costs. Additionally, recording buying frequency and quantity aimed to ascertain their influence on business performance during the pandemic, considering the crucial four degrees Celsius temperature for maintaining product quality.

Among the 20 responses, 12 (60%) favor purchasing goods weekly. A quarter of resellers (25%) visit the store monthly, while the remaining three (15%) vary in frequency. Some purchase every three months, while others base visits on available transportation, particularly for those living outside the dairy hub's location. These findings reinforce earlier conclusions that business location significantly shapes customer purchasing behavior, impacted by factors like distance to the hub and transportation availability, especially during initial lockdown periods.

Approximately 75% of respondents typically pay Php 5,000 per transaction, totaling 15 responses. Four resellers (20%) reported paying between Php 5,001 and Php 10,000, while only one reseller (5%) indicated spending Php 10,000 and above per transaction. The researchers extrapolated sales estimates for the dairy hub per month based on buying frequency and transaction cost. Considering a maximum transaction value of Php 5,000, multiplied by four weeks in a month, and using the revenue formula (price multiplied by quantity), the estimated monthly revenue stands at a minimum of Php 20,000.

The researchers also gathered insights from resellers regarding their challenges and suggestions for resolution. Additionally, they explored why resellers remained loyal to the dairy hub as their supplier during the pandemic. Resellers, not accountable for product spoilage due to inadequate materials during transit, were surveyed about expenses on items like ice, styrofoam, and other protective materials.

From the findings, 11 resellers (55%) acknowledged incurring additional expenses to maintain product quality during transit, often spending on ice blocks, styrofoam, and zip locks. Conversely, nine respondents (45%) stated otherwise. Regarding the dairy hub's service, the researchers included a Likert scale where respondents rated their satisfaction levels on a scale from 1 to 5, ranging from '1-Very Dissatisfied' to '5-Very Satisfied.'

The resellers' customer experience, especially their perception of the dairy hub's overall service during the pandemic, shapes their satisfaction and expectation alignment. Only 5% expressed high dissatisfaction with service. 10% (2 respondents) were dissatisfied, while 5% (1 respondent) remained neutral. Conversely, 50% (10 respondents) expressed satisfaction, constituting half of the total responses. Lastly, 30% (6 respondents) reported feeling delighted with the service.

The researchers assessed resellers' evaluations of employee assistance in preserving dairy product quality, especially concerning maintaining the requisite temperature and materials during extended travel from the store. Among 20 resellers, 11 (25%) rated employee assistance as knowledgeable or excellent in preventing dairy product spoilage. Additionally, a quarter of resellers rated this assistance as above average (four out of five). On the other hand, 15% (3 resellers) found the employee assistance average, while 5% (1 reseller) rated it below average.

Throughout the pandemic, 9.09% (2 resellers) encountered obstacles in securing transportation due to restricted mobility without a valid health permit. Additionally, three resellers faced challenges in locating the dairy hub. The business organized meetings for resellers outside their original store to streamline distribution. While 9.09% (2 resellers) expressed a need for improved communication with the dairy hub, the majority did not. 31.82% (7 respondents) reported no issues with purchasing, while 36.3% (8 respondents) encountered various challenges. These included insufficient supply, shorter product shelf life, limited stock, flavor unavailability, occasional store closures for sanitation or employee quarantines, and inconsistent product availability. Despite these obstacles, resellers persist in choosing the dairy hub as their primary supplier during the pandemic, noting the presence of competing brands and businesses offering alternative dairy products alongside Carabao milk.

Resellers frequently mentioned product quality and competitive pricing as the primary reasons influencing their purchasing decisions. Besides the aforementioned reasons, the dairy hub's commitment to supporting local farmers played a crucial role. Resellers were motivated by a desire to aid these farmers by consistently patronizing the company over commercial brands.

The geographical proximity of most resellers, predominantly within the area, likely contributed to their choice of supplier. The convenience and potential additional costs associated with distant suppliers could have influenced their decision, underscoring the significance of the business's availability and accessibility.

Suggestions for improving the supply chain, reflecting resellers' feedback, unveil significant enhancements needed in the dairy hub's operational framework. Numerous findings underscore resellers' challenges in procuring products, directly affecting their overall customer experience. A prominent issue lies in inadequate supply, resulting in frequent inability to meet demand, a critical weakness despite high product demand and production capacity.

The perceived success of the business, hindered by an inability to meet customer service expectations, traces back to milk production at the initial stage of their supply chain. Resellers' feedback concerning processing and packaging suggests the need for improved product formulation aligned with processing practices. Packaging issues compromise milk quality, such as illegible expiration dates due to freezing and inadequate sealing.

Distribution challenges during the pandemic stem from the store's location necessitating a drop-off point and additional expenses to ensure product freshness. Regarding marketing, the dairy hub lags in social media presence and advertising compared to competitors, relying primarily on local word-of-mouth promotion in the vicinity.

Customer experience components encompass perceived success, effort, and emotion, all evaluated in the survey concerning pricing, products, and services during the pandemic. While most respondents express satisfaction, a minority rates the service lower, indicating some dissatisfaction.

A survey gauged whether the 10% pandemic-induced price cut was adequate. Most respondents deemed the reduction sufficient, impacting their perceived emotion and contentment with product prices, a crucial factor in their willingness to pay. Despite the pandemic, customers continue to choose the dairy hub due to its strong brand, superior product quality, and competitive pricing compared to other dairy Buffalo product providers. Beyond resale, some consumers, like restaurants, rely on the dairy hub's products, driving demand. The high quality, health benefits, and reasonable prices of these items elevate their demand, even in farther urban areas.

5. Conclusion

Given the Philippines' agricultural nature and significant milk demand, this research is pivotal for resource allocation and industry enhancement. It aims to identify necessary measures to mitigate the pandemic's impact on the dairy industry and address potential future challenges. Additionally, it offers insights for facilitating industry entry to a broader range of individuals. This study explored connections among shifting customer targets, supply chain challenges, and pandemic marketing strategies as indicators of business success. However, limited data access and varied perspectives among resellers constrained the study. A more focused investigation could benefit this exploratory study. Future research might involve financial ratios and broader marketing strategies to extend the analysis and address these limitations. We examined factors affecting the customer experience of a dairy hub's resellers during the pandemic. Findings highlight key influences: (1) Market positioning offering quality at a low price, (2) Health benefits of dairy buffalo products, (3) Social responsibility supporting local farmers, and (4) Service quality, which is crucial during pandemic-related challenges. Supply chain issues impacted reseller experiences, prompting sourcing changes, yet supply shortages persisted, affecting high-demand resellers. Despite challenges, positive survey results highlight the impact of service, pricing, and employee performance on enhancing customer experience. Amid the pandemic, the dairy hub's shift towards resellers enhanced its brand through positive customer experiences. Focusing on this target market proved lucrative and insightful, gathering valuable feedback for service improvements and e-commerce adaptation. The reseller-centric approach became a competitive advantage, influencing customer experience through market development strategies. Understanding customer needs and meeting expectations became pivotal. For future market shifts, enhancing overall service and utilizing tools like the business model canvas will be crucial for sustained success and improved customer value.

The dairy hub should enhance its supply chain, focusing on the initial phase, starting at the farms or feed for carabaos. They need to conduct further research on animal science to ensure consistent availability of carabaos for lactation. Increase milk processing capacity and consider eco-friendly packaging like milk cartons. Establish segmented drop-off points for resellers

based on proximity and strengthen partnerships with cooperatives. Expand presence in urban areas like the National Capital Region (NCR). Improve social media use for product promotion and cater to new customer segments. Increase local promotions like nearby deliveries and diverse payment options. Introduce feedback forms to understand better and fulfill customer needs, enhancing satisfaction. While the business presently centers on individual customers, it is vital to recognize the escalating significance of resellers in their operations. Collaborating with distributors and resellers amplifies brand recognition and order generation. Considering this, the company could develop a system that prioritizes resellers as a target market alongside the public. Enhancing human resource management is crucial, as human capital is the most valuable asset for any business. With most employees stationed in stores rather than farms, the researchers suggest recruiting graduates with agricultural or dairy farming backgrounds. This move aims to streamline operations, particularly at the farm, where supply chain issues originate. The management team must prioritize resellers' feedback and recommendations, an essential aspect now and in the future. Implementing an online payment system and enhancing social media presence will boost appeal, attract new customers, and drive overall sales. Businesses are adapting to a new normal where consumers prioritize seamless transactions, superior customer service, and added benefits. Analyzing the dairy hub's pandemic performance faces several limitations. The absence of financial data hampers comparing pre-pandemic and pandemic performance after the shift to individual customers. Additionally, the small sample size of 20 could be expanded by leveraging an official reseller database. Online data gathering and geographic distance brought by the pandemic also challenged data collection.

Acknowledgement

Funding: The authors declare that no funding was available to create this article.

Conflict of Interest: The authors have no conflict of interest to declare relevant to this article.

References

- Alli, K. L., G. G. Ramirez and K. Yung (1991). "Corporate headquarters relocation: Evidence from the capital markets." *AREUEA Journal* 19(4): 583-599
- Barsky, J. D., & Labagh, R. (1992). A strategy for customer satisfaction. *The Cornell Hotel and Restaurant Administration Quarterly*, 33(5), 32–40.
<https://doi.org/10.1177/001088049203300524>
- Das, A., Sivaram, M., & S, T. (2021). Economic impact of COVID-19 pandemic on dairy sector: A meta-analysis. *The Indian Journal of Animal Sciences*, 91(7).
<https://doi.org/10.56093/ijans.v91i7.115908>
- Ghosh, A. K., Chakraborty, G., & Bunch Ghosh, D. (1995). Improving brand performance by altering consumers' brand uncertainty. *Journal of Product & Brand Management*, 4(5), 14–20.

Hernandez, H. E., Mercado, T. E., Sobremonde, E. M., & Rosete, M. A. (2022). Analyzing the Efficiency of Dairy Production in the Philippines. *International Journal of Social and Management Studies*, 3(1), 87–111. <https://doi.org/10.5555/ijosmas.v3i1.91>

Cornall, J. (2022, January 25). *Philippines' dairy sector urged to ramp up production*. Dairyreporter.com; William Reed Ltd. <https://www.dairyreporter.com/Article/2022/01/25/philippines-dairy-sector-urged-to-ramp-up-production>

Dulin, A. T., Maita, D. R., Guadamor Dean, L. P., Eusebio, J. E., & Pascua, J. R. (n.d.). *Marketing channel of dairy products in Cagayan*. Garph.co.uk. Retrieved December 24, 2023, from <https://garph.co.uk/IJARMSS/June2019/G-2608.pdf>

Hallowell, R. (1996). The relationships of customer satisfaction, customer loyalty, and profitability: an empirical study. *International Journal of Service Industry Management*, 7(4), 27–42. <https://doi.org/10.1108/09564239610129931>

Poudel, P., Poudel, M., Guatam, A., & Puyal, S. (2020). *COVID-19 And Its Global Influence On Food And Agriculture*. iomcworld.org. <https://www.iomcworld.org/articles/covid19and-its-global-impact-on-food><https://www.iomcworld.org/articles/covid19-and-its-global-impact-on-food-and-agricultureandagriculture>

Quilloy, Karen & Sumalde, Zenaida. (2015). Improving Marketing Efficiency through Agricultural Cooperatives: Successful Cases in the Philippines.

Saludes, T., & Takeshita, H. (2021). Bayesian analysis of factors influencing milk productivity of small-hold dairy buffalo farmers in South Luzon, Philippines. *Journal of Experimental Agriculture International*, 1–11. <https://doi.org/10.9734/jeai/2021/v43i130625> Sharma, A., Gupta, J., Gera, L., Sati, M., & Sharma, S. (2020). Relationship between customer satisfaction and loyalty. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.3913161>

Smith, A. K., Bolton, R. N., & Wagner, J. (1999). A model of customer satisfaction with service encounters involving failure and recovery. *JMR, Journal of Marketing Research*, 36(3), 356–372. <https://doi.org/10.1177/002224379903600305>

Wong, I. A., & Dioko, L. (don) A. N. (2013). Understanding the mediated moderating role of customer expectations in the customer satisfaction model: The case of casinos. *Tourism Management*, 36(C), 188–199. <https://doi.org/10.1016/j.tourman.2012.10.010>

Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/4.0/>)