



PAPER – OPEN ACCESS

Consumer Preference-Based Tourism Development Strategy: A Case Study at Tirta Ceria Waterpark

Author : Frisilia Dewi Raphon Sihombing, et al
DOI : 10.32734/lwsa.v9i2.2856
Electronic ISSN : 2654-7066
Print ISSN : 2654-7058

Volume 9 Issue 2 – 2026 TALENTA Conference Series: Local Wisdom, Social, and Arts (LWSA)



This work is licensed under a [Creative Commons Attribution-NonCommercial 4.0 International License](https://creativecommons.org/licenses/by-nc/4.0/).

Published under licence by TALENTA Publisher, Universitas Sumatera Utara



Consumer Preference-Based Tourism Development Strategy: A Case Study at Tirta Ceria Waterpark

Frisilia Dewi Raphon Sihombing^{*1}, Rulianda Purnomo Wibowo², Meilita Tryana Sembiring³

¹Magister of Management, Postgraduate School, Universitas Sumatera Utara, Medan, 20155, Indonesia

²Agribusiness, Faculty of Agriculture, Universitas Sumatera Utara, Medan, 20155, Indonesia

³Industrial Engineering, Faculty of Engineering, Universitas Sumatera Utara, Medan, 20155, Indonesia

raphondewi@gmail.com, rulianda_wibowo@usu.ac.id, meilita@usu.ac.id

Abstrak

Studi ini mengeksplorasi strategi pengembangan destinasi wisata berbasis air berdasarkan preferensi konsumen, dengan fokus pada Tirta Ceria Waterpark di Indonesia. Menghadapi jumlah pengunjung yang berfluktuasi dan meningkatnya ekspektasi, penelitian ini menerapkan pendekatan kuantitatif menggunakan analisis gabungan untuk mengevaluasi lima atribut utama: harga tiket, fasilitas kolam renang, penawaran promosi, fasilitas rekreasi tambahan, dan keamanan. Data dikumpulkan dari 110 responden, yang mengungkap kombinasi yang paling disukai: Tiket Masuk Akhir Pekan Gratis bulanan seharga Rp140.000, fitur air canggih (misalnya, skybox/seluncuran air/kolam ombak), promosi yang dibundel dengan makanan dan minuman, dan peningkatan keamanan seperti CCTV. Temuan ini menawarkan rekomendasi strategis untuk meningkatkan fasilitas dan posisi kompetitif di pasar pariwisata.

Kata kunci: Preferensi Konsumen; Strategi Pengembangan; Analisis Konjoin; *Waterpark*; Manajemen Pariwisata.

Abstract

This study explores the development strategy of a water-based tourism destination based on consumer preferences, focusing on Tirta Ceria Waterpark in Indonesia. Facing fluctuating visitor numbers and rising expectations, the research applies a quantitative approach using conjoint analysis to evaluate five key attributes: ticket pricing, swimming pool facilities, promotional offers, additional recreational amenities, and security. Data was collected from 110 respondents, revealing the most preferred combination: a monthly Free Weekend Pass priced at IDR 140,000, advanced water features (e.g., skybox/waterslide/wavepool), bundled promotions with food and beverage, and security enhancements like CCTV. The findings offer strategic recommendations for improving facilities and competitive positioning in the tourism market.

Keywords: Consumer Preferences; Development Strategy; Conjoint Analysis; *Waterpark*; Tourism Management

1. Introduction

Tourism, particularly in recreational water-based destinations, is a rapidly evolving sector influenced by consumer demand for quality, safety, and value. In Indonesia, waterparks serve as key attractions for diverse demographics. Tirta Ceria Waterpark, located in Deli Serdang, offers multiple pools and amenities but faces challenges from increasing competition and inconsistent visitor trends. Data from May to October 2024 showed significant fluctuation in attendance, indicating a need for strategic development aligned with visitor expectations.

Despite existing offerings, the park faces issues such as a lack of additional amenities, rising consumer expectations for experience-based tourism, and gaps in promotional effectiveness. Early survey findings indicated visitor dissatisfaction with the availability of food and beverage outlets and photo spots. Additionally, increasing competition from other destinations with

modern, aesthetic, and diverse facilities compounds the challenge. This situation demands a more structured and data-driven strategy to remain competitive and relevant.

Preliminary surveys revealed that 53% of visitors desired more facilities like cafes and photo spots, while 16% mentioned ticket price concerns. Moreover, 68% of visitors learned about the park through word-of-mouth, emphasizing the importance of service quality in marketing. This study aims to identify consumer preferences and use them to recommend targeted improvements in services and infrastructure to enhance satisfaction and competitiveness.

2. Literature Review

Strategic management is the process of formulating, implementing, and evaluating decisions that enable an organization to achieve its long-term objectives (Jauch & Glueck, 1988). Osin et al. (2019) define strategy as a set of choices and plans regarding actions and resource allocation to achieve organizational goals while maintaining competitive advantage.

Consumer behavior refers to the activities and processes individuals undertake when obtaining and consuming products or services (Kotler & Keller, 2019). Sunyoto (2015) explains consumer behavior as all actions related to the acquisition and usage of goods, including decision-making processes. Preference, as part of consumer behavior, represents the ranking of available alternatives based on desirability (Frank, 2011).

According to Spillane (2014), tourism facilities are categorized into core, supporting, and complementary facilities. These include infrastructure that enhances visitor experience, such as restrooms, worship areas, and safety signage. Government regulations (Ministerial Regulation No. 4, 2021) outline the minimum standards required for water-based tourism operations, covering sanitation, safety, and accessibility.

Pricing, according to Kotler and Armstrong (2014), includes factors such as affordability, quality perception, and value. Consumers evaluate pricing based on the benefits received in comparison to costs. In a tourism context, pricing affects visitor expectations and satisfaction.

Promotions, defined by Tjiptono (2015), are marketing activities aimed at informing, persuading, and reminding potential customers. Promotional strategies include advertising, direct marketing, public relations, and sales promotions. In tourism, effective promotions are essential for attracting new visitors and retaining existing ones.

Safety is a fundamental consideration for any tourism destination. Mahagangga et al. (2013) emphasize that perceived safety and comfort influence tourists' decisions and satisfaction levels. Ensuring visible safety measures increases trust and enhances the reputation of a destination.

Conjoint analysis, as described by Hair et al. (2014), is a statistical technique that determines how people value different features of a product or service. It is useful for identifying the relative importance of attributes and predicting consumer preferences.

3. Methodology

The reaction or mathematical equation should be positioned symmetrically on the column, marked by sequential numbers written on the right corner within brackets. If the writing of equation takes more than one line, numbers should be written on the last line. Letters used as mathematical symbols in the text should be written in italics such as *x*. Equations in the text should be referred to as abbreviations, for example equation (1). Make sure the equation is made with equation function (in M.S. Word) or using LaTeX equation form (definitely we do not accept equation put as a picture).

This study employed a quantitative research design to analyze consumer preferences for waterpark attributes using conjoint analysis. A quantitative approach was selected because it allows for systematic measurement of preferences and facilitates statistical evaluation of the relative importance of multiple attributes simultaneously. Conjoint analysis is particularly suitable for this research as it simulates real-world decision-making by requiring respondents to evaluate combinations of attributes rather than isolated factors.

Table 1. Sub-attributes and Levels Used in Conjoint Design

Attribute	Level 1	Level 2	Level 3
Price	Weekend Package (IDR 37,000)	Family Package (IDR 90,000 for 5)	Free Weekend Pass for a Month (IDR 140,000)
Pool Facility	Temperature-controlled Pool	Indoor Pool	Waterslide/Wavepool/Skybox
Promotion	Weekday Membership (Buy 9 get 1 free)	Bundling Entry + Drink & Meal	Discount on 25th Monthly
Additional Facilities Cafeteria		Photo Spot	Adventure rides (ATV, Flying Fox, RC Car)
Security	Lifeguards at each pool	Safety Equipment (Life Vest, Divider)	CCTV in multiple areas

Source: Author's design based on preliminary survey results and field observations (2025).

4. Results and Discussion

4.1 Respondent Profile

A total of 110 respondents participated in this study, all of whom had visited Tirta Ceria Waterpark more than once. The respondents were predominantly within the productive age group, reflecting the primary market segment of the waterpark.

4.2 Attribute Importance

The conjoint analysis results indicate that ticket pricing is the most important attribute influencing consumer preferences, followed by swimming pool facilities and promotional schemes. Additional recreational facilities and security features were found to have relatively lower importance. This finding highlights the critical role of value-oriented pricing strategies in influencing visitor decisions.

Table 2. Attribute Importance

Attribute	Importance Value (%)
Price	22.81%
Security	20.32%
Promotion	19.95%
Additional Facilities	18.52%
Swimming Pool Facilities	18.40%

Source: Processed primary data (SPSS Conjoint Analysis), 2025

4.3 Part-Worth Utilities

The part-worth utility estimates show that respondents strongly prefer a monthly Free Weekend Pass priced at IDR 140,000. Advanced water attractions such as waterslides, wave pools, and skybox features generated the highest utility among facility attributes. Bundled promotions combining entrance tickets with food and beverages were preferred over standard discount schemes, while adventure-based facilities and CCTV installation yielded the highest utility in their respective attributes.

Table 3. Part-Worth Utilities of Conjoint Attributes

Attribute	Attribute Level	Utility Estimate
Price	Weekend Package (IDR 37,000)	0.019
	Family Package (IDR 90,000 for 5 persons)	-0.073
	Free Weekend Pass for a Month (IDR 140,000)	0.055
Swimming Pool Facilities	Temperature-controlled pool	-0.017
	Indoor swimming pool	-0.010
	Waterslide / Wave Pool / Skybox	0.027
Promotion	Weekday membership (Buy 9 get 1 free)	-0.019
	Bundled entrance ticket with food and beverage	0.042
	Monthly discount on the 25th	-0.023
Additional Facilities	Cafeteria / food court	-0.010
	Photo spot	-0.062
	Adventure rides (ATV, Flying Fox, RC Car)	0.072
Security	Lifeguards at each pool	0.004
	Safety equipment (life vests, dividers)	-0.021
	CCTV in multiple areas	0.017

Source: Processed primary data using SPSS Conjoint Analysis, 2025.

4.4 Model Validity and Preference Simulation

The conjoint model demonstrates good predictive accuracy, as indicated by Pearson's R and Kendall's Tau, which show a strong correlation between observed and estimated preferences. Preference simulation results suggest that the most attractive attribute combination consists of value-based pricing, advanced water facilities, bundled promotions, additional recreational activities, and enhanced security measures. These results support the adoption of integrated pricing and facility development strategies to improve visitor satisfaction and competitiveness.

Table 4. Pearson's R and Kendall's Tau

Statistic	Value
Pearson's R	0.964
Kendall's Tau	0.857

Source: Processed primary data using SPSS Conjoint Analysis, 2025.

4.5 Discussion and Managerial Implications

The dominance of price as the most influential attribute is consistent with previous tourism studies emphasizing value-for-money considerations in destination choice. The findings indicate that Tirta Ceria Waterpark should prioritize innovative pricing schemes and continuous improvement of core attractions while maintaining adequate safety standards to sustain visitor confidence.

5. Conclusion

This study demonstrates that consumer preferences play a crucial role in shaping development strategies for water-based tourism destinations. The results of the conjoint analysis indicate that ticket pricing is the most influential attribute affecting visitor preferences, followed by swimming pool facilities and promotional schemes. These findings confirm that value-oriented pricing and high-quality core attractions are key determinants of visitor decision-making at Tirta Ceria Waterpark.

The most preferred attribute combination consists of a monthly Free Weekend Pass priced at IDR 140,000, advanced water attractions such as waterslides, wave pools, and skybox features, bundled promotions with food and beverages, additional recreational facilities, and enhanced security through CCTV installation. The reliability of the conjoint model is supported by goodness-of-fit measures, where Pearson's R and Kendall's Tau indicate a strong alignment between observed and estimated preferences.

From a managerial perspective, these results suggest that Tirta Ceria Waterpark should prioritize pricing innovation and continuous improvement of core facilities to enhance visitor satisfaction and competitiveness. Future research may extend this analysis to multiple waterpark destinations or incorporate longitudinal data to capture changes in consumer preferences over time.

References

- [1] Agarwal, S., Amromin, G., Ben-David, I., & Dinc, S. (2018). The Politics of Foreclosures. *Journal of Finance*, 73(6). <https://doi.org/10.1111/jofi.12725>
- [2] Bulusu, N., & Guérin, P. (2019). What drives interbank loans? Evidence from Canada. *Journal of Banking & Finance*, 106, 427–444. <https://doi.org/10.1016/j.jbankfin.2019.07.016>
- [3] Gutsche, G., & Ziegler, A. (2019). Which private investors are willing to pay for sustainable investments? Empirical evidence from stated choice experiments. *Journal of Banking and Finance*, 102, 193–214. <https://doi.org/10.1016/j.jbankfin.2019.03.007>
- [4] Hair, J.F., Black, W.C., Babin, B.J., & Anderson, R.E. (2014). *Multivariate Data Analysis* (7th ed.). Pearson.
- [5] Kotler, P., & Armstrong, G. (2014). *Principles of Marketing* (15th ed.). Pearson.
- [6] Kotler, P., & Keller, K. L. (2019). *Marketing Management* (15th ed.). Pearson.
- [7] Marselina, S., Sulistiono, & Saragi, S. P. (2022). Consumer perception and preference in tourism destination selection. *Jurnal Ilmiah Pariwisata Kesatuan*, 3(2), 77–86.
- [8] Monica, Z. A. (2024). Marketing strategies to increase tourist visits. *Journal of Management and Creative Business*, 2(2), 39–60. <https://doi.org/10.30640/jmcbus.v2i2.2278>.
- [9] Niza, N. (2024). Tourist behavior analysis in visiting Wai Tiddo tourism destination. *eCo-Buss: Economics and Business*, 7(2), 1329–1345. <https://doi.org/10.32877/eb.v7i2.1774>.
- [10] Osin, R. F., Kusuma, I. R. W., & Suryawati, D. A. (2019). Tourism destination development strategies. *Jurnal Ekonomi dan Pariwisata*, 14(1).
- [11] Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (2019). SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality. *Journal of Retailing*.
- [12] Purnama, D. (2023). Tourist preferences and visiting decisions at Mifan Waterpark & Resort. *Jurnal Pendidikan Tambusai*, 7(3), 23754–23760.
- [13] Rifandi, M. N., & Yuniar. (2021). Service attribute design using conjoint analysis: Evidence from railway transportation. *Proceedings of FTI Dissemination*.
- [14] Santoso, S. (2016). *Conjoint analysis using SPSS*. PT Elex Media Komputindo.
- [15] Simanihuruk, M. (2019). Tourist attraction and tourist facilities intentions to visitor satisfaction: Case of Sindang Barang Cultural Village. *E-Journal of Tourism*, 6(2), 210–224.
- [16] Spillane, J. (2014). *Tourism economics*. Gadjah Mada University Press.
- [17] Sugiyono. (2019). *Research methodology: Quantitative, qualitative, and R&D*. Alfabeta.
- [18] Wahyuni, I. N., & Tamami, N. D. B. (2021). Tourist preferences toward Camplong Beach destination. *Jurnal Pamator*, 14(1), 51–60.
- [19] Wibowo, P., Purnama, H., Elina, M., Astuti, H., & Ikhsan, A. (2023). Tourism facilities and customer satisfaction in island destinations. *Jurnal Bisnis Darmajaya*, 9(2).
- [20] Yulianto, A., Hadi, W., & Yulianto. (2023). Tourist preference analysis toward destination choices in Yogyakarta. *Journal of Tourism and Economic*, 6(2), 143–152. <https://doi.org/10.36594/jtec/tq2fkg11>.