

## **Business Decision for Optimal Location of Traditional Restaurant in Bandung: Value Focused Thinking (VFT) -Analytical Hierarchy Process (AHP)**

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### **Abstract**

This research examines the location decision-making process for a traditional home-cooked restaurant serving Yogyakarta cuisine in Bandung, driven by changing customer behavior, increased competitive pressure in the culinary sector, and the impending growth of the business. The owner requires a methodical approach to select the optimal location in Greater Bandung. Therefore, this project thesis evaluates three potential locations using a Multi-Criteria Decision Analysis methodology, which incorporates Value-Focused Thinking (VFT) to determine the six location criteria derived directly from the owner's objectives. The methodology employs the Analytic Hierarchy Process (AHP) to assign weights to each criterion and rank the three location options by suitability. A simple spatial analysis based on Christaller's Central Place Theory assesses the extent of the residential area surrounding each potential location as well as the presence of service centers in proximity. The analysis proceeded as follows: (1) data collection through interviews and site visits, (2) completion of paired-comparison questionnaires, and (3) establishment of consistency and sensitivity checks. The findings indicate that the Taman Kopo Indah Corridor should be the first priority, owing to its extensive residential base, adequate accessibility, and tolerable levels of direct competition. Additionally, this research serves as a practical decision-support tool for small-scale food businesses seeking to establish new locations for expansion, as it demonstrates how Multi-Criteria Decision Analysis and spatial perspectives can be integrated into the context of Indonesian cities.

**Keywords:** location selection; traditional restaurant; Multi-Criteria Decision Analysis; Value-Focused Thinking; Analytic Hierarchy Process

### **Introduction**

The culinary industry in Indonesia is experiencing growth, driven by the increasing contribution of the food and beverage sector to GDP and relatively stable trends in household consumption (BPS, 2025; CRIF Indonesia, 2024). West Java Province, particularly Bandung City, presents considerable market potential as a popular culinary tourism destination. The area is experiencing rapid growth in food businesses, both in the city center and in new residential neighborhoods (Imelia et al., 2024; Mahsyar & Surapati, 2020; Rohmawati & Anwar, 2025; Syariful & Untung, 2020). This aligns with location theory and the central place concept, which emphasize that the attractiveness of a business location is determined by accessibility, the size of the residential area served, and its proximity to centers of population activity in urban areas (Liang, 2022; Shi et al., 2020; Zhang & Sun, 2025; Zhao et al., 2025). However, many traditional MSME-scale restaurants still choose branch locations based on perceived crowds and the proximity of their business premises, which risks resulting in a suboptimal combination of potential demand, rental costs, and competitive intensity.

Various studies indicate that restaurant location selection is multi-criteria and is analyzed using the Multi-Criteria Decision Analysis (MCDA) approach, especially the Analytic Hierarchy Process (AHP), to compare alternative locations and produce feasibility rankings (Belton & Stewart, 2002; Saaty, 1980, 2008). Specific research on the decision to select a branch location for traditional restaurants on a small and medium-sized enterprise (SME) scale in Bandung is still limited, and many studies use criteria without first exploring the main goals and values of the decision maker through a value-focused procedure, thus not fully reflecting the goals and priorities of the business owner (Keeney, 1992).

To address this gap, it is essential to conduct comprehensive studies that incorporate qualitative insights from business owners. By understanding their priorities and values, researchers can develop a more tailored framework for site selection that aligns with the unique vision of each SME. The novelty of this research lies in the development of a framework for optimal branch location decision-making that combines Value-Focused Thinking (VFT) and AHP within the MCDA framework, supported by a simple spatial interpretation referring to Central Place Theory (CPT). The objectives of this research are: (1) to identify and prioritize the location criteria for traditional restaurant branches in Bandung, and (2) to rank several alternative city corridors based on the VFT–AHP model used.

This literature review focuses on small-to-medium-scale culinary businesses in selecting their locations in a highly competitive environment. Previous literature studies have shown that access, cost, customer demographics, and the level of competition all impact the choice of a specific location, using Multi-Criteria Decision Analysis (MCDA) methodologies (e.g., analytical hierarchy process [AHP]; value-focused thinking [VFT]) as a means to provide a framework for business owners to compare various location options and determine which location is most suitable for their business. This section will provide a brief summary of these concepts that will serve as the basis for conducting MCDA in this research.

Location selection for retail or restaurant businesses usually involves many factors rather than focusing on a single criterion (e.g., accessibility and rental rates). Other considerations include the level of competition by geography, the potential for market growth, and the availability of the infrastructure necessary to support successful operations. The Multi-Criteria Decision Analysis (MCDA) approach works well in cases such as this because it provides structure to decision-making processes by offering a systematic method for identifying business goals, determining evaluation criteria, assigning weights to them, and assessing possible options (Belton & Stewart, 2002). By using MCDA, businesses can build a comprehensive decision-making model that integrates all relevant quantitative and qualitative factors into one transparent framework for analyzing location selections and developing an effective rationale for the owner and other interested parties.

Value-Focused Thinking (VFT) differs from many organizations that execute their business decisions by using existing alternatives and then finding the rationale to support

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one of them. Decision-makers using the value-focused methodology begin with the value or the goal they want to achieve, not with the current alternatives available. They identify what they want to achieve (for example, a family business growing with consistent revenues, having close customers, and having an appropriate work-life balance) and break down these high-level values into operational objectives, performance criteria, and measurable performance indicators. Thus, the location criteria included in the decision model can be viewed not only as grounded in technical issues but also as reflecting an organization's strategic priorities (Keeney, 1992).

One of the most popular multi-criteria decision analysis (MCDA) methods for choosing the site of new firms is the Analytic Hierarchy Process (AHP). Decision-makers can easily utilize AHP due to its top-down structure and very simple hierarchical architecture (Saaty, 1980, 2008). The objectives are at the top of the AHP hierarchy, followed by related criteria and sub-criteria that further categorize the options at the bottom. By comparing the relative relevance of the criteria pairwise or determining which criteria best differentiate the alternative sites, decision-makers determine their preferences (between alternative places).

Based on these comparisons, a matrix is then created to determine which sites are better than others in terms of these criteria and to determine the proportional relevance of each criterion. Additionally, AHP offers a method for evaluating the consistency of these assessments by calculating a consistency ratio, which establishes if the evaluations contain notable inconsistencies (Saaty, 2008). AHP is a useful tool for micro, small, and medium-sized businesses (MSMEs) in the culinary industry since it can produce quantitative rank orders of options even when there are few respondents.

The majority of research has used Multi-Criteria Decision Analysis (MCDA) techniques, specifically the Analytic Hierarchy Process (AHP), to assess the various criteria that are often involved in restaurant and food service location selection. Accessibility, visibility of traffic flow, closeness to residential and office areas, and rental cost are important elements that influence decision-making, according to research on restaurant and food service location selection (Tzeng et al., 2002; Lin et al., 2021; Wu et al., 2021). Other factors, such as the level of competition, the accessibility of parking spaces, and the possibility of delivery services, have occasionally been added to previous models, particularly in densely populated metropolitan regions (Gazi et al., 2023; Alwedyan, 2024).

The Value-Focused Thinking (VFT) paradigm and AHP have been utilized in a number of additional studies beyond the restaurant and food service industries for project selection, vendor selection, and group decision-making. These studies usually employ AHP to translate the values and goals of stakeholders into numerical weights and rankings for each option (Logullo et al., 2022; Winowoda, 2023; Saputra, 2024; Dahri, 2024). It has been observed that using VFT and AHP together promotes more accountable and transparent decision-making, especially when there are conflicting interests among several stakeholders.

Most existing studies focus on large or medium-sized organizations, or modern retail chain operations, and rely heavily on secondary data collected from cities or locality-based datasets to perform the analyses.

The conceptual framework proposed by Savitz et al. (2017) uses the Input-Process-Output (IPO) model to guide the problem identification process and ultimately generate recommendations between business owners' or operators' values and their overall objectives through Value-Focused Thinking (VFT). Once the objectives for the targeted location were identified, they were refined into a set of objective yardsticks, or location criteria, representing all the measures necessary for evaluating the decision. These yardsticks were then presented to business owners or operators in a way that enabled them to make the most informed decision for their unique context, based on the values they had articulated for their business.

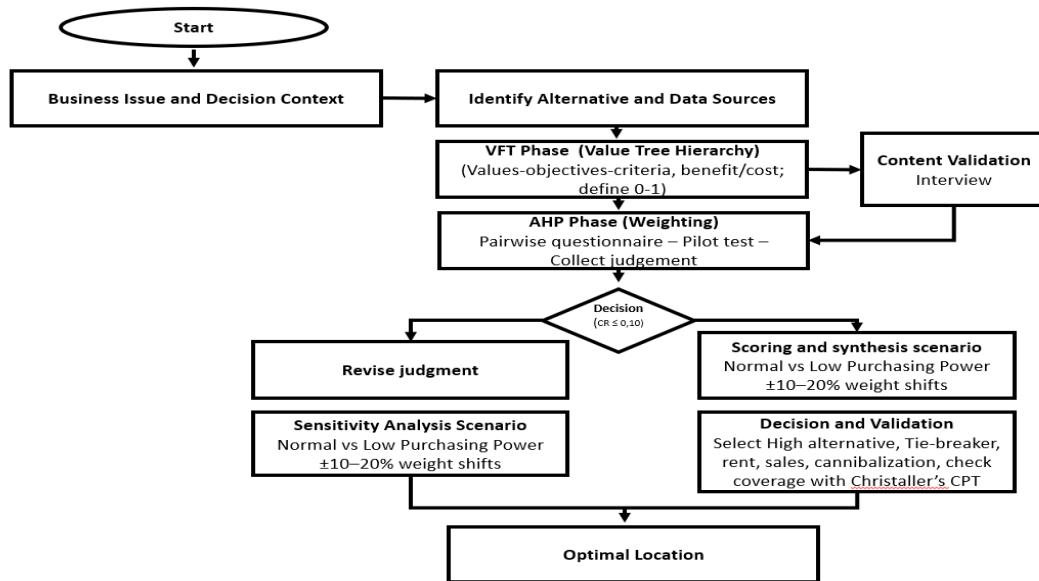
The Analytic Hierarchy Process (AHP) was then used to summarize and evaluate the resulting decision hierarchy, which included location criteria and any location-specific information, in order to determine weights and initial rankings of the yardsticks for assessing the alternative locations (Keeney, 1992; Saaty, 1994).

The preferred branch store site and operating plan for the restaurant business were then determined by integrating the final AHP ranking results with pertinent environmental data. Alignment with established principles, operational viability, and market competitiveness served as the foundation for this decision.

## **Method**

This research employed a multi-criteria research design to assist in determining the most suitable location for establishing a new traditional brick-and-mortar restaurant. The combined framework of Value-Focused Thinking (VFT) and the Analytic Hierarchy Process (AHP), as components of Multi-Criteria Decision Analysis (MCDA), was used to evaluate and compare alternative restaurant locations based on the business owner's values and goals, and to weight and rank each location accordingly figure below.

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**Figure 1.** (Keeney, 1992; Belton & Stewart, 2002; Saaty, 1980).

Figure 1 illustrates the overall flow of the VFT–AHP–CPT Research Design highlighting the process of defining and developing the problem; defining the criteria; completing the AHP survey; calculating the global score; and examining the various locations using a Central Place Theory (CPT) perspective.

Research was conducted to assist A traditional Javanese restaurant in Bandung in making a strategic decision about expanding into the Greater Bandung area, with a focus on three potential locations: Arcamanik, Central Cimahi, and Taman Kopo Indah. To collect primary data on the values, objectives, and criteria relevant to location selection, semi-structured interviews were conducted with the owner, key staff members, and several external informants, including delivery couriers, customers, and property agents. Field observations were also carried out at each potential location to gather information on access, visibility, parking availability, competing businesses in the surrounding area, delivery service opportunities, and the availability of local workers (Creswell & Plano Clark, 2017).

In the AHP stage, information was gathered from a panel of chosen respondents who evaluated the three options according to the specified criteria using a pairwise comparison questionnaire on a 1–9 scale, as outlined by Saaty. Secondary data included details about shophouse rental costs, local population density, the surrounding road system, and businesses that were pertinent to A traditional Javanese restaurant in Bandung that were gathered from real estate websites, digital maps, and government documents.

From the VFT process, six criteria were generated based on the values and objectives identified: Access and Visibility, Rent and Fixed Costs, Competitive Intensity, Logistics and Parking, Delivery Potential, and Workforce. These criteria are detailed in each Instrument sheet (see Appendix E) and include Operational Definitions, Example Indicators, Benefit or Cost Orientation, and Sources of Data Measurement (Keeney, 1992;

Belton & Stewart, 2002). A summary of these criteria and their respective orientations is presented in the table below.

**Table 1. Operationalization of VFT Criteria into AHP**

Criteria	Explanation	Orientation	Examples of main indicators
Access and Visibility	Easily accessible from main roads and traffic flow.	Benefit	Position relative to the main road, distance from the busy intersection.
Rent and Fixed Costs	The amount of rental costs and other fixed cost components that need to be paid in one year.	Cost	Annual rent of shophouse, estimated initial renovation costs.
Competitive Intensity	The density level of similar competitors around the location.	Cost	Number of similar restaurants within a certain radius.
Logistics and Parking	Operational convenience regarding vehicle access, parking, and loading and unloading.	Benefit	Parking availability, and vehicle access.
Delivery Potential	Potential demand from delivery services and online courier reach.	Benefit	Applicator coverage, density of app users in the area.
Workforce	Availability of local labor for restaurant operations	Benefit	Proximity to densely populated residential areas of productive age.

Source: compiled based on Keeney, 1992; Belton & Stewart, 2002; Saaty, 1980

The analysis was completed in three main stages. First, qualitative analysis of interview and observation data was used to develop a value tree containing criteria and potential alternatives relevant to the assessment of a traditional Javanese restaurant in Bandung. Second, criterion weightings and local preferences for the options were produced by combining AHP questionnaire data using geometric mean computations. Third, the AHP process was used to evaluate these weights and priorities. This included verifying the Consistency Ratio (CR), which had a maximum permitted value of 0.10 (Saaty, 1980, 2008; Forman & Peniwati, 1998).

The total of the products of the criteria weights and local priority was used to determine the global scores for each alternative. Taman Kopo Indah received the best overall score (0.3743), followed by Central Cimahi (0.3033) and Arcamanik (0.3223). Based on the combined criteria in the AHP model, this suggests that Taman Kopo Indah is the best location. Taman Kopo Indah was regularly placed first, followed by Arcamanik and Central Cimahi, according to sensitivity testing on the weighting of each criterion within a ±10–20 percent range. This suggests that the location selection outcomes are comparatively resilient to slight adjustments in the weightings of the criteria (Saaty & Vargas, 2012).

## Result and Discussion

In summary, the analysis shows that the most important criteria for selecting a new branch location are Logistics and Parking, followed by Access and Visibility, and Delivery Potential. This combination of weights resulted in Taman Kopo Indah achieving

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the highest global AHP score, followed by Arcamanik and Central Cimahi. Sensitivity tests and spatial validation further confirmed that the rankings are relatively stable and reasonable in terms of residential coverage and transportation access.

### Research Object and Respondents

This research of a traditional Javanese restaurant in Bandung that is thinking about building a new location in the Greater Bandung area is used in this research. Three potential sites were examined: Taman Kopo Indah (T), Central Cimahi (C), and Arcamanik (A).

Eight interview respondents and seven AHP questionnaire respondents representing the company owner, important employees, clients, culinary observers, other owners of culinary businesses, and real estate agents provided the data. Because they have firsthand knowledge of restaurant operations and location factors in Greater Bandung, respondents were purposefully chosen (Creswell & Plano Clark, 2017; Yin, 2018).

### Value-Focused Thinking (VFT) Results and Criteria

Through semi-structured interviews and step-by-step exploration techniques, the fundamental values and objectives of the business owner and other stakeholders were identified and mapped. The most frequently emerging values were business continuity, controlled market growth, operational efficiency, and ease of customer access. These values were then organized into fundamental and instrumental objectives (Keeney, 1992).

The research developed six main criteria for evaluating possible locations based on this value tree: Workforce Availability, Logistics and Parking, Competitive Intensity, Rent and Fixed Costs, Access and Visibility, and Delivery Potential. Following that, each criterion was operationalized into observable indicators, including proximity to major roads, annual rent, parking capacity, delivery service coverage, the number of comparable competitors within a given radius, and proximity to residential areas that could be sources of labor (Belton & Stewart, 2002; Keeney, 1992). Table 1 in the methodology section provides an overview of how these criteria have been operationalized.

### AHP Criteria Weighting

Pairwise comparison assessments of the six criteria were conducted using Saaty's 1–9 scale and processed using the geometric mean to aggregate the responses of seven respondents (Saaty, 1980, 2008; Forman & Peniwati, 1998). The eigenvector calculation results showed a Consistency Ratio (CR) value of 0.061, thus the matrix was deemed consistent as it fell below the threshold of 0.10.

The final criteria weights and rankings are shown in Table 2.

**Table 2.** Final criteria weights and rankings

Criteria	Weight	Rating
Logistics and Parking	0,292	1
Access and Visibility	0,257	2
Delivery Potential	0,183	3
Rent and Fixed Costs	0,116	4
Workforce Availability	0,080	5
Competitive Intensity	0,072	6

Source: processed research data (2025).

These results indicate that daily operational aspects, particularly logistics and parking, along with access and visibility, are considered more important than cost or competitive intensity.

### Global Score, Alternative Ranking, and Sensitivity

Once the criterion weights are obtained, each alternative (A, C, T) is scored against each criterion using a  $3 \times 3$  matrix. The local priorities are then combined with the criterion weights to generate the AHP global score. A summary of the global scores and alternative rankings is presented in Table 3.

**Table 3. AHP Global Score and Alternative Location Rankings**

Alternative	Global Priority	Rank
T (Taman Kopo Indah)	0.37431	1
A (Arcamanik)	0.32233	2
C (Cimahi)	0.30325	3

Source: processed research data (2025).

Taman Kopo Indah achieved the highest global score, primarily due to its strong performance in the Logistics and Parking, Delivery Potential, and Workforce Availability criteria. Arcamanik ranked second, with a strong rental cost, while Central Cimahi ranked third.

In order to do a one-way sensitivity test, each criterion's weight was changed within a range of  $\pm 10$  percent,  $\pm 20$  percent, and  $+50$  percent. The weights for the other criteria were then normalized (Saaty & Vargas, 2012). Despite minor changes in the overall score, the ranking pattern of Taman Kopo Indah  $>$  Arcamanik  $>$  Central Cimahi held true in every scenario. This suggests that location selection outcomes are comparatively stable in the face of modest adjustments to criterion weights.

### Spatial Validation Summary

Central Place Theory (CPT) principles were also used to spatially confirm the AHP results. To evaluate residential coverage and any overlap in service areas, mapping was done with buffers of 1, 2, and 3 km surrounding the three alternate locations. All things considered, Taman Kopo Indah showed a good mix of wide residential coverage, easy access to important transit routes, and a reasonable amount of overlap with other branches.

These findings are visualized in Market Coverage and Overlap Map Between Locations, which illustrates the relative positions of the three alternatives, their 1–3 km service radii, and their proximity to the main road network. The spatial results are consistent with the AHP findings, with Taman Kopo Indah emerging as the highest-ranked alternative.

### Business Solution and Implications

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The research by summarising how the VFT–AHP–CPT framework answers the two research questions, translating the findings into a practical business solution, and outlining limitations and directions for future work.

### ***Summary of Key Insights***

This research developed a structured decision model for selecting a new branch location for a traditional Javanese restaurant in Bandung by combining Value-Focused Thinking (VFT), the Analytic Hierarchy Process (AHP), and spatial validation using Central Place Theory (CPT). In line with RQ1, VFT was used to translate the owner's values and goals into six measurable location criteria, while AHP assigned weights to these criteria and generated a ranking of the candidate sites.

The results indicate that Logistics and Parking, Access and Visibility, and Delivery Potential are the most influential criteria. Taman Kopo Indah consistently emerges as the top alternative, achieving the highest global score across various weighting scenarios. Spatial validation further reinforces these findings by demonstrating a broad residential catchment area, strong connectivity to major transportation corridors, and a manageable level of service overlap.

### ***Recommended Business Solution***

Taman Kopo Indah is suggested as the top site for expansion based on the model. This suggestion can help the owner of a traditional Javanese restaurant in Bandung choose a suitable retail unit along the Taman Kopo Indah corridor with the following features: a) Good access and visibility: situated in a well-known gastronomic corridor, close to a major road, and well visible from traffic flows. b) Sufficient parking and logistics, including enough room for vehicles and motorbikes and easy access for delivery riders and supply deliveries. c) Controlled rivalry: there is little direct competition from similar eateries in this lively yet uncrowded culinary scene.

It is recommended that the owner perform on-site due diligence prior to finalizing a lease agreement, concentrating on existing rental levels and trends, traffic patterns at various times and days, and the profile of adjacent customers. This stage is crucial because, although the VFT-AHP model offers a systematic framework for making decisions, the final conclusion still needs to be calibrated against current price conditions and competition dynamics. (Saaty, 2008; Keeney, 1992).

### ***Phased Implementation Plan***

To keep operational and financial risks under control, the new branch should be opened gradually. The three primary stages over around a year can be summarized using a straightforward Gantt-style chart (Figure X): a) Phase (months 0–3 and 3–6): Start with a small staff, a streamlined menu, and lunch and dinner-only hours of operation. To increase awareness, test first campaigns and fortify alliances with delivery platforms. b) Key indicator monitoring: Keep tabs on daily average sales, the ability to pay fixed costs, the proportion of dine-in, takeout, and delivery orders, and the use of cooking capacity. To assess whether access, costs, competitiveness, logistics/parking, delivery potential, and workforce circumstances are still in line with initial expectations, use the six VFT-AHP criteria as a recurring checklist. c) Adjustment and development phase: The owner

can progressively increase staff capacity, improve the menu, and extend opening hours if key indicators show encouraging trends. Corrective measures, including renegotiating the lease, repositioning promotional campaigns, or modifying layout and service design, can be used early if major deviations occur (for instance, higher-than-expected rent burdens or weaker demand patterns).

In this way, the proposed business solution not only recommends Taman Kopo Indah as the preferred location but also provides a disciplined approach to managing the expansion based on indicators aligned with the owner's values and objectives (Keeney & Raiffa, 1976; Belton & Stewart, 2002).

### Use of the VFT–AHP Framework for Future Decisions

The VFT–AHP framework used in this research is reusable for other location decisions and for strategic decisions involving multiple criteria. The owner can reapply the value tree and six core criteria as a starting point, then adjust them to reflect changes in context, such as rising rents, evolving consumption patterns, or plans to expand into new cities. In the context of SMEs, this framework helps reduce reliance on intuition alone and supports a more transparent, discussable, and well-documented decision process (Logullo et al., 2020; Winowoda, 2023; Saputra, 2024; Dahri, 2024).

### Conclusion

This research faces limitations including its focus on a single restaurant case in Greater Bandung with a small expert panel, limiting statistical generalizability to broader food and beverage businesses; reliance on proxy measures, observations, and judgments for indicators like delivery potential and workforce availability instead of detailed transaction data; and the static nature of the AHP model, which captures preferences at a single point in time amid potential shifts in economic conditions, rental markets, and consumer behavior. For future research, studies could enhance robustness by incorporating actual sales records, delivery-platform transactions, or mobility data, while comparing the VFT–AHP approach against alternatives like outranking methods or integrated MCDA–scenario planning, and extending applications to diverse SME types or multi-branch networks in other cities to assess framework adaptability and scalability.

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