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Prioritizing Franchise Expansion with AHP: Strategic Evaluation of Special Product Placement in Minimarkets

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Abstract

This study examines the strategic decision-making process involved in expanding franchise minimarkets by pinpointing optimal locations for launching special product offerings. Utilizing the Analytical Hierarchy Process (AHP), the research assesses eight alternative location types to establish priority rankings based on various decision criteria. Data were gathered through structured questionnaires administered to expert respondents, and pairwise comparisons were performed to evaluate the relative importance of both criteria and alternatives. The analysis identifies rest areas on toll roads as the most advantageous locations for expansion, followed by vertical residential complexes and office buildings. Among the criteria, potential customer volume and daily traffic flow proved to be the most influential factors in the decision-making process. Consistency ratio analysis verified the reliability of the AHP model. These findings offer actionable insights for franchise operators, highlighting the importance of targeting high-traffic locations to improve sales performance and operational efficiency. The study concludes that prioritizing rest area locations can significantly facilitate strategic growth and the effective placement of special products within existing minimarkets.

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INTRODUCTION

The minimarket franchise sector has experienced substantial growth in recent years, aligning with the increasing demand from consumers for convenient access to essential goods. The popularity of these franchises is primarily attributed to their convenience and their capacity to meet the needs of time-constrained consumers. Consequently, this sector has garnered considerable interest from entrepreneurs who regard it as a viable source of consistent profitability and growth potential. In response to heightened competition and the pursuit of enhanced profitability, numerous minimarket operators have implemented product

diversification strategies, particularly the incorporation of ready-to-eat food and beverage offerings, which are perceived to possess high consumer demand. However, despite the optimistic outlook associated with such strategies, there have been instances where the introduction of new products has led to a decline in financial performance. This trend is especially evident in minimarkets that previously exhibited operational stability. Such outcomes signify deficiencies in analytical rigor and strategic decision-making during the product selection process, particularly concerning the compatibility of new products with the characteristics of the minimarket's location (Ko & Chiu, 2006).

A recurring issue in this context is the failure to conduct a comprehensive analysis of local market demands before implementing product innovation. Business decisions are frequently influenced by general trends or assumptions rather than critical local variables, including accessibility, consumer preferences, competitive landscape, and demographic factors. In the absence of a clear understanding of consumer behavior, the introduction of new products may fail to align with market expectations, thereby potentially leading to adverse effects on store performance (Fauzan et al., 2020). To mitigate such risks and identify products with high potential, it is imperative to adopt a methodical, data-driven approach to decision-making.

Empirical studies consistently highlight the crucial role of store location and surrounding conditions in determining the success of product offerings in minimarkets. Merely situating a minimarket in a strategic, accessible location, such as commercial centers, office buildings, or educational institutions, does not guarantee successful product performance if the offerings do not align with local consumer preferences (Chen & Tsai, 2016). Furthermore, in highly competitive environments, an absence of product differentiation or innovation may further diminish the likelihood of success (Tyagi & Kumar, 2020).

The Analytical Hierarchy Process (AHP) is an effective tool for minimarket operators looking to assess and prioritize essential criteria for launching new products. AHP enables systematic and rational decision-making by evaluating various factors, such as consumer purchasing power, demographic characteristics, competitive intensity, and potential market accessibility (Aboulola, 2017; Shrestha, 2018). By utilizing this method, business professionals can reduce dependence on conjectural judgment, opting instead for decisions grounded in measurable and objective data.

This study primarily aims to identify and rank the key factors that affect the successful launch of specialty products in minimarkets adhering to standardized procedures. Using the

AHP methodology, it seeks to provide strategic, evidence-based recommendations for business owners. These insights should enable more informed product selection choices and reduce financial risks in a highly competitive retail landscape (Koç & Burhan, 2015).

METHOD

The Analytical Hierarchy Process (AHP) serves as a decision-support tool designed to address Multiple Criteria Decision Making (MCDM) challenges through the utilization of pairwise comparison techniques and an eigenvalue-based approach. Furthermore, AHP facilitates the assignment of numerical scales to evaluate performance across both qualitative and quantitative dimensions, employing a scale ranging from 1/9, which indicates "extremely less preferred," to nine, denoting “extremely more preferred," with one symbolizing “equally important” (Vaidya & Kumar, 2006). Concurrently, Ishizaka and Labib (2011) characterize AHP as an MCDM methodology that assists decision-makers in navigating complex issues characterized by conflicting and subjective criteria. AHP presents a range of advantages, including a structured decision-making process, the incorporation of both qualitative and quantitative criteria, compatibility with other decision-making methodologies, consistency in pairwise comparisons, and the ability to assess intangible criteria. Moreover, this method promotes the involvement of multiple experts within a collective decision-making framework.

Research Design

The initial phase in constructing the AHP hierarchical framework involves defining pertinent criteria, establishing the goals to be achieved, and identifying several potentially beneficial alternatives. This study employs six criteria that yielded the highest cumulative value in prior research concerning the store selection process: store crowdedness, accessibility, number of competitors, rental cost, store facilities, shopping area, sales performance, and customer purchasing power. Following the delineation of the relevant parameters, the subsequent task involves identifying additional stores that could represent the optimal options. In the context of this research, the preliminary alternatives include vertical buildings, horizontal buildings, airports and harbors, office buildings, rest areas along toll roads, gas stations, colleges and high schools, and amusement parks. Drawing upon this information, an AHP hierarchical structure can be established for this study, as illustrated in figure 1.

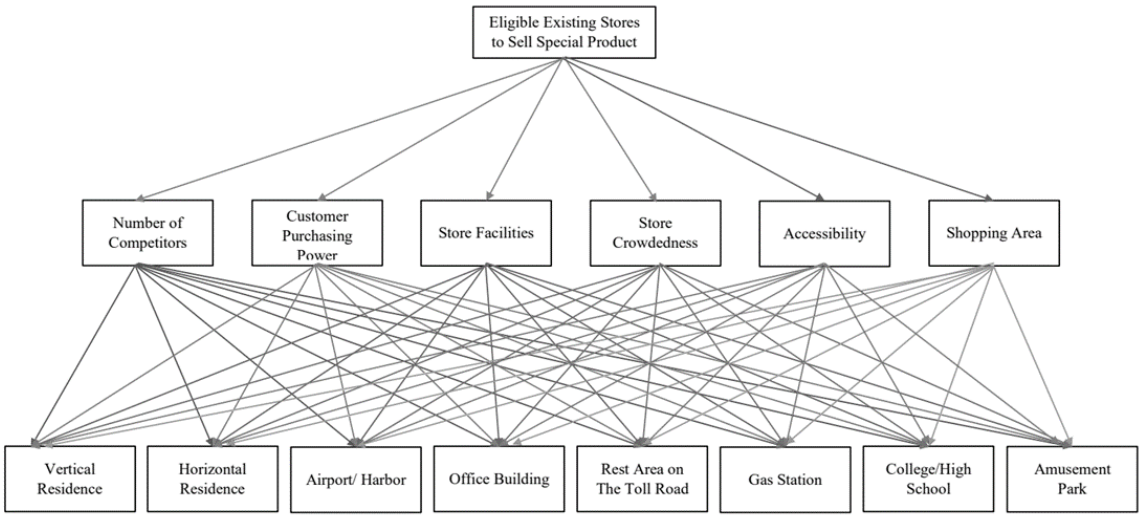

Figure 1. Store Selection Process Hierarchy Structure

RESULTS AND DISCUSSION

Criteria Weight Results

The implementation of the Analytical Hierarchy Process (AHP) within this study provides a robust framework for evaluating and prioritizing prospective locations for the introduction of specialized products in minimarket franchise establishments. The results underscore the importance of particular decision-making criteria in evaluating the feasibility and potential success of these strategic expansions.

Customer purchasing power, which carries the highest weight of 24%, emerged as the most influential criterion. This finding aligns with retail and marketing literature, highlighting the direct impact of consumers' spending ability on sales performance and product demand. Minimarket locations with higher purchasing power are more likely to support the successful introduction of special or premium products. Accessibility (22%) and store facilities (21%) followed closely in importance. High accessibility ensures a steady and diverse flow of customers, while well-equipped stores enhance the shopping experience, increasing dwell time and the likelihood of purchases. These factors are vital for special product offerings that may require greater visibility, improved display infrastructure, or enhanced customer engagement.

Interestingly, store crowdedness (19%) emerged as a significant factor, showing that locations with high customer traffic tend to be more advantageous. However, its effectiveness is maximized when combined with purchasing power and store facilities; mere crowds do not ensure increased sales if shoppers are not both able and willing to buy. The size of the selling area (10%) and the number of competitors (3%) had less impact. While a larger sales area can

enhance product variety and presentation, it appears to be a secondary factor unless it is aligned with higher traffic and purchasing power. The relatively minor influence of competition indicates that decision-makers might consider a saturated market as acceptable or even beneficial, as long as demand remains robust, particularly in rest area locations.

Table 1. The Weight of the Criterion Judged by Experts

Criteria	Number Of Competitors	Customer Purchasing Power	Store Facilities	Store Crowdedness	Accessibility	Selling Area	Priority Vector
Number Of Competitors	0.03	0.04	0.03	0.03	0.03	0.03	0.03
Customer Purchasing Power	0.20	0.24	0.29	0.24	0.19	0.28	0.24
Store Facilities	0.22	0.17	0.21	0.21	0.29	0.18	0.21
Store Crowdedness	0.21	0.19	0.19	0.19	0.19	0.18	0.19
Accessibility	0.22	0.27	0.15	0.22	0.21	0.23	0.22
Selling Area	0.12	0.09	0.12	0.11	0.09	0.10	0.10

Alternative Ranking

Alternative rankings indicate that toll road rest areas received the top score of 19.96%. These locations consistently performed well across key criteria, especially in purchasing power, amenities, and customer density, positioning them as prime opportunities for specialized product growth. The notable score achieved amidst competition reflects robust demand and high customer turnover, effectively countering the issues related to market saturation.

Horizontal residential areas (17.07%) and amusement parks (14.42%) closely followed, demonstrating excellence in criteria such as accessibility and available sales area. These areas present distinctive patterns of foot traffic and opportunities for community engagement; however, they may be deficient in purchasing power compared to other locations. Airports and harbors presented an intriguing case: despite attaining the highest score in customer purchasing power (6.44%), their overall ranking was adversely impacted by inadequate accessibility and limited sales space. This situation underscores the significance of a balanced profile; elevated purchasing power alone cannot compensate for logistical deficiencies. Conversely, gas stations and vertical residences ranked at the bottom, primarily due to their consistently poor performance across several criteria. This suggests that while these locations may offer specific

advantages, they do not possess the comprehensive strengths necessary to support substantial product additions.

Table 2. The Alternatives Ranking

Alternative x Criteria	Number of Competitors	Customer Purchasing Power	Store Facilities	Store Crowdedness	Accessibility	Selling Area	Total
Rest Area on Toll Road	0.94%	5.36%	4.68%	4.94%	2.25%	1.79%	19.96%
Horizontal Residence	0.72%	1.17%	1.75%	2.78%	7.22%	3.44%	17.07%
Amusement Park	0.39%	3.45%	3.79%	2.83%	2.68%	1.28%	14.42%
Office Building	0.16%	4.59%	4.31%	3.49%	1.21%	0.57%	14.34%
Airport/Harbor	0.52%	6.44%	2.16%	1.44%	0.90%	0.37%	11.82%
Gas Station	0.12%	0.97%	1.64%	1.45%	4.12%	1.43%	9.74%
College/High School	0.16%	1.02%	2.23%	1.35%	1.44%	0.64%	6.85%
Vertical Residence	0.14%	1.14%	0.86%	0.95%	1.76%	0.95%	5.81%

The results unequivocally emphasize the strategic significance of high-traffic, accessible, and economically feasible locations for the expansion of minimarket franchises. The implementation of the Analytic Hierarchy Process (AHP) not only facilitated a systematic comparison but also yielded actionable insights. It is imperative for decision-makers to prioritize locations that are closely aligned with the highest-ranking criteria to ensure operational efficiency and market responsiveness. This strategy provides a rational, data-driven framework for sustainable growth within the competitive retail landscape.

CONCLUSION

Improving the profitability of minimarket franchises via specialized product offerings necessitates an assessment of location feasibility. This study utilizes the Analytical Hierarchy Process (AHP) to ascertain that consumer purchasing power (24%) constitutes the most vital success factor, succeeded by accessibility (22%), store facilities (21%), and store crowdedness (19%). Furthermore, the size of the sales area (10%) and the number of competitors (3%) occupy secondary positions.

Among the assessed alternatives, rest areas located on toll roads emerged as the primary selection, owing to consistently high evaluations across critical criteria, despite the competitive environment. Horizontal residential zones secured the second position, benefiting from robust accessibility and substantial space. In contrast, airports and seaports, along with gas stations, although commendable in isolated aspects such as purchasing power and accessibility, were ranked lower due to inadequacies in other areas. Vertical residences were placed last, exhibiting deficiencies across nearly all criteria.

The findings underscore that no singular factor guarantees success; rather, a synergistic amalgamation of purchasing power, facilities, and crowd density is imperative. To ensure sustainable growth, minimarket franchises must implement a comprehensive, data-driven strategy that harmonizes market potential, operational readiness, and location attributes.

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