

## Evaluation and ranking of appropriate marketing strategies in private hotels of Mazandaran province using Fuzzy AHP method

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**Abstract:** The purpose of the current study is to provide an analytical tool to determinate the appropriate marketing strategy for the private hotels so as to capture sustainable competitive advantage. Given the complexity and difficulty of allocated specific and limited resources of marketing strategy toward competitive advantage for private hotels, hence, the current study is to employ the fuzzy analytic hierarchy process (FUZZY AHP) method to determinate competitive marketing strategy for private hotels. after reviewing the various opinions and research on competitive advantage in general, and particularly in service industries, resources and capabilities such as: managerial capabilities, customer linking capabilities, market innovation capabilities, human resource assets and reputational assets have been determined. Then, according to the above resources and also exploring in various comments and articles three types of appropriate marketing strategies determined: cost leadership strategy, differentiation strategy and the segmentation strategy to achieve competitive advantage for the private hotels. Due to a set of criteria for comparisons, the fuzzy analytic hierarchy process method is undertaken to accommodate the inherent uncertainty. the means of the tringular fuzzy numbers produced by managers of the private hotels for each comparison were successfully used in the pairwise comparison matrices The data obtained from questionnaires were analyzed using Fuzzy Analytical Hierarchy Process (FUZZY AHP). Results from analysis showed that according to sources and facilities said above, the most appropriate marketing strategy to achieve competitive advantage in the private hotels of Mazandaran province is the cost leadership strategy.

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### 1. Introduction

Marketing is one of the most important issues for survival and development of institutions and also one important concern for the managers is to achieve aimed markets. Hence, in today's complex dynamic and highly variable environment, the organizations need to design and adopt a strategy which could help them improve their performance ever, because in such competitive environment, organizations will survive which are able to stay in competition turntable and keep pace with changing conditions and dynamic competitive market (Mozaffari, 2009).

In other words, the managers will see the result of their decision making in form of strategy in the mirror of performance criteria. The strategies are such tools that organization can thereby achieve its long-term target. But since no organization can have unlimited resources, the strategists should make decision in which of the strategies can bring more benefits to the organization. In decisions that determine strategy, the organization is committed for a relatively long period to provide certain products or services, engage in certain markets, and finally use known resources and technology. Strategies

determine organization competitive advantages in the long-term periods. ( David, 2009).

Today, tourism as a new industry in the last century have provided the great potential for economic development and it has taken into more consideration because of the increasing demand. The hotel as an economic institution also requires new marketing and sales plans. Like all of other organizations also the hotel can achieve significant results with the help of science and design and selecting appropriate marketing strategies. Unfortunately, tourism and hotel management in less developed countries due to structural problems and lack of proper marketing strategy faces with the threat and challenges and so these communities often are not able to participate in the global tourism and its benefits.

Thus, the present study, after reviewing the various opinions and research on competitive advantage in general and service industries in particular, the resources and facilities such as management abilities, customer relationship skills, ability to innovate in market, having human resources and good reputation have been determined. Then according to the above resources and also review the

various comments and articles, three type of suitable marketing strategy involves cost leadership strategy, differentiation strategy and a classification strategy for creating competitive advantage were identified in the nongovernmental hotels. So, in ranking criteria for evaluation and comparison, Fuzzy hierarchical analysis (FUZZY AHP) will be used.

This study emphasizes the importance of special and limited resources and facilities for evaluating and selecting appropriate marketing strategy to achieve competitive advantage. Consequently, the aim of this study is to provide an analytical tool for the evaluation and ranking marketing strategies in order to achieve competitive advantage in 3 Up to 5 star Private Hotels of Mazandaran province.

## 2. Literature Review

### 1.2. Competitive Advantage, Marketing Strategy, Marketing Resources and Capabilities

“Resource-based view” (RBV) emerged arguments as challengers against the excessive determinism of Porter’s (1980) view of competition Wernerfelt (1995), and the RBV emphasized the importance of key resources in achieving a competitive advantage Panayides (2004). Porter (1991) also stressed that core capabilities or the resources of intangible assets could create exhilarating competitive for organization. Both within and across the marketing and RBV domains, Srivastava, Fahey, and Christensen (2001) pointed that the common emphasis upon leveraging resource is to create and sustain value for the organization’s stakeholders should not be surprising, given the considerable goodness of fit between marketing realities and the assumption. Aaker (2004) pointed out five common routes to sustainable competitive advantage, included quality, value, innovation, focus and global. In the boundaries of RBV, sustain ability of competitive advantage would be accomplished heavily with the bundle of resources and capabilities possessed by the particular organization Kaleka (2002). Some researches had been attempted to explore this association by empirical examinations of specific competitive strategies and the implications in terms of company performance (Panayides 2004; Slater and Narver 1994; Dess and Beard 1984). Also, Lynch, Keller, and Ozment (2000) pointed that resource-based and product-market strategies had been associated with improved performance. Therefore, the importance of the relationship among competitive advantage and marketing strategy and performance had also been recognized in the context of hotel marketing practicing. Then, Kaleka (2002) pointed out that different combinations of resources and capabilities would be identified as drivers of cost,

service, and product advantage; nonetheless, the capability to build enduring relationships with customers emerged as essential in achieving all three types of competitive advantage for industrial exports. The cost advantage would be associated with cost of goods sold, product cost per unit, and selling price to customers; service advantage covered technical support and after-sales service, product accessibility, delivery speed and reliability; and product advantage would be designated by superior quality, packaging, and design and style of the product (Kaleka 2002; Grant 1998; Kim and Lim 1988). In consonance with views of Penrose (1959), Nelson & Winter (1982), and Teece, Pisano, and Shuen (1997), placing the emphasis upon the effective utilization of firm-controlled distinctive capabilities and resources, ventures could take to created defensible positions against competitive forces.

Porter (1980) introduced a typology of three generic marketing strategy alternatives for creating a defensible position and out performing the competitor in a given industry, including overall cost leadership, differentiation and focus Panayides (2004). Practitioners might be in a superior cost strategy position to achieve cost decrement, when they find acquisition and development of necessary resources. The resource-based theory of the firm in differentiation strategy suggests that resource requirement similarity among rival companies may increase competition Barney (2001). Boyt and Harvey (1997) also states that differentiation through offering superior customer service is especially important, while Grant (1998) points out that successful product/service differentiation is achieved through innovations and improvements across different parts of the value chain. Panayides (2004) investigates, based on Porter’s focus strategy, the impact of major marketing thought and market segmentation as a fundamental precursor to a focused strategy and important product-market strategy. Market segmentation benefits could be widespread, ranging from understanding customer needs and delivering customer value to achieving competitive advantage and improved organizational performance.

Many resources underpinning marketing activities could be potentially significant advantage-generating resources. Hooley et al (2005) suggests the most interesting criteria for determining marketing strategy. Encapsulated resources could gain market values as term marketing resources, including market-based resources and marketing support resources. Marketing resources could be resources immediately deployed in the marketplace to create or maintain competitive advantage, including customer linking capabilities, market innovation capabilities, human resource assets and reputational assets.

Marketing support resources on the other hand, serve primarily to support marketing activities and contribute indirectly to competitive, including managerial capabilities and market orientation.

The large number of criteria usually considered in the marketing strategy evaluation process makes it very difficult for marketing experts. This study uses the five aspects as a skeleton and

synthesize other literatures and practical consideration to in corporate marketing resources proposed by Hooley et al (2005), included managerial capabilities, customer linking capabilities, market innovation capabilities, human resource assets and reputational assets, the details of which can be found in Table 1.

**Table 1:** The evaluation criteria and their related attributes

Criteria	Evaluation attributes
Management capabilities (MC)	Financial condition, human resource effective, operation management technology, and service management
Customer linking capabilities (CLC)	Level of customer service, relationship with key target customers, understanding customers' needs and requirements, creating relationships with customers, and maintaining and enhancing relationships with customers
Market innovation capabilities (MIC)	Ability to launch new products and services, and new product and service development process effective
Human resource assets (HRA)	Levels of employee job satisfaction and levels of employee retention
Reputation assets (RA)	Company or brand name or reputation, and credibility with customers

Note: According to Hooley et al. (2005).

### 3. Conceptual model of research

The conceptual model is a starting point and basis for doing studies and research which determine the variables and relationships between them (Edward s et al, 2000). Conceptual model can achieve significant results used in this study as a hierarchical tree which has three levels.

"Target" places On first level of the model, (Selecting an appropriate marketing strategies to achieve competitive advantage). In the second level, "Criteria" (Includes managerial capabilities, customer linking capabilities, market innovation capabilities, human resource assets and reputational assets) are listed, and in the lower and third level is placed "Options" (Three strategies include cost leadership, differentiation and classification ).

Simply in the present study, the target is selecting an appropriate marketing strategy to achieve competitive advantage according to five criteria (Includes managerial capabilities, customer linking capabilities, market innovation capabilities, human resource assets and reputational assets). Three strategies of cost leadership, differentiation and classification are determined which their precedence

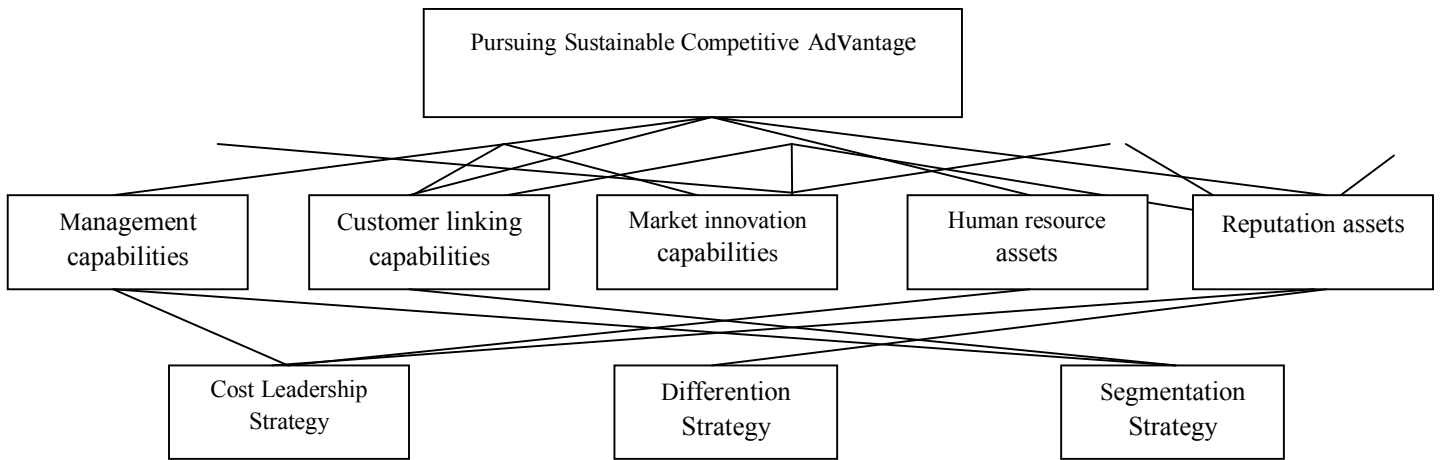
are different regard to the five criteria. The said model has been shown in Figure (1).

### 4. The fuzzy AHP methodology

It is not possible to assume that an identified m-commerce user requirement is of equal importance. For this reason, the most well known MCDM approach, namely AHP, may be used for criteria weight determination, as suggested by Salmeron and Herrero (2005) and Işıklar and Büyüközkan (2007). AHP assumes that evaluation criteria can be completely expressed in a hierarchical structure. The data acquired from the decision-makers are comparisons concerning the relative importance of each of the criteria, or the degree of preference of one factor to another with respect to the each criterion. For details on the use of AHP and its various calculations, the reader is referred to the work of Saaty (1980). In the conventional AHP, the pairwise comparison is made by using a ratio scale. Even though the discrete scale has the advantages of simplicity and ease of use, it does not take the uncertainty associated with the mapping of one's perception (or judgment) to a number into account. However, it is also well recognized that human

assessment on the relative importance of individual customer requirements is always subjective and imprecise. The linguistic terms that people use to express their feelings or judgment are vague. Firstly, as advocated by Zadeh (1965), fuzzy set theory has become an important theory to deal with the ambiguity in a system. In the year 1996 a method names Extent Analysis method (EA) was offered by a Chinese researcher named Chang. The numbers used in this method are triangular numbers Momeni (2005). In this paper, the widely adopted triangular fuzzy number technique is used.

We conducted a questionnaire for 31 private hotel practitioners, who are owners and managers for private hotels. The questionnaire was created in accordance with the associated criteria of the evaluation framework. Each rated score in the questionnaire corresponds to each matrix of criteria. Rating of each pairwise comparison was based on the Table 2, due to five criteria and three alternatives for overall goal, a total of 6 pairwise matrices totaling 25 pairwise comparisons were made.



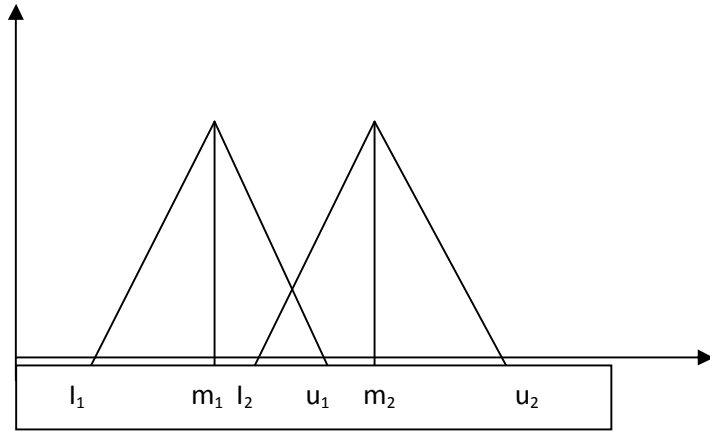
(Chin – Tsai Lin et al, 2009)

**Figure 1:** The Evaluation Framework for Pursuing Sustainable Competitive Advantage

**Table 2:** converting oral variables into triangle fuzzy numbers

Definite inverse	Triangular fuzzy numbers inverse	Oral variables	Triangular fuzzy numbers	Oral variables	Definitive
1	(1, 1, 1)	Equal	(1, 1, 1)	Equal	1
$\frac{1}{2}$	( $\frac{2}{3}, 1, 2$ )	lower	( $\frac{1}{2}, 1, \frac{3}{2}$ )	Slightly Superior	2
$\frac{1}{3}$	( $\frac{1}{2}, \frac{2}{3}, 1$ )	Relatively less	( $1, \frac{3}{2}, 2$ )	Relatively superior	3
$\frac{1}{4}$	( $\frac{2}{5}, \frac{1}{2}, \frac{2}{3}$ )	Less	( $\frac{3}{2}, 2, \frac{5}{2}$ )	Superior	4
$\frac{1}{5}$	( $\frac{1}{3}, \frac{2}{5}, \frac{1}{2}$ )	Much less	( $2, \frac{5}{2}, 3$ )	Very Superior	5
$\frac{1}{6}$	( $\frac{2}{7}, \frac{1}{3}, \frac{2}{5}$ )	quite Less	( $\frac{5}{2}, 3, \frac{7}{2}$ )	Quite superior	6

Based on EA method, concepts and definitions Of AHP fuzzy will be described ( Lotfi, 1997). Consider two triangular  $M_1 = (I_1, m_1, u_1)$  and  $M_2 = (I_2, m_2, u_2)$  have been drawn in Fig.



**Fig. 2:** two triangular fuzzy numbers

The mathematical operators are defined as:

$$M_1 + M_2 = (l_1 + l_2, m_1 + m_2, u_1 + u_2) \tag{1}$$

$$M_1 \times M_2 = (l_1 \times l_2, m_1 \times m_2, u_1 \times u_2)$$

$$M_1^{-1} = \left(\frac{1}{u_1}, \frac{1}{m_1}, \frac{1}{l_1}\right), \quad M_2^{-1} = \left(\frac{1}{u_2}, \frac{1}{m_2}, \frac{1}{l_2}\right) \tag{2}$$

It should be noted that the multiply of two triangular fuzzy numbers, or inverse of a triangular fuzzy number is not a triangular fuzzy number. This relationship, just express an approximation of the actual multiply of two triangular fuzzy numbers and inverse of a triangular fuzzy numbers.

In EA method, for each paired comparisons matrix rows, the  $S_k$  which is a triangular number calculated as follows:

$$S_k = \sum_{j=1}^n M_{kj} \times \left[\sum_{i=1}^n \sum_{j=1}^n M_{ij}\right]^{-1} \tag{3}$$

$$\begin{cases} V(M_1 \geq M_2) = 1 \\ V(M_1 \geq M_2) = \text{hgt}(M_1 \cap M_2) \end{cases} \quad \text{if } m_1 \geq m_2 \tag{4}$$

$$\text{hgt}(M_1 \cap M_2) =$$

Largeness level of one triangular fuzzy number from k triangular fuzzy numbers is also obtained from the following equation:

$$V(M_1 \geq M_2, \dots, M_k) = \text{Min}[V(M_1 \geq M_2), \dots, V(M_1 \geq M_k)] \tag{5}$$

$$W'(x_i) = \text{Min}\{V(S_i \geq S_k)\}, \quad k = 1, 2, \dots, n \quad k \neq i \tag{6}$$

$$W' = [W'(c_1), W'(c_2), \dots, W'(c_n)]^T \tag{7}$$

$W'$

]

$c_1, c_2, \dots, c_n$  indexes obtain:

$$W_i = \frac{w'_i}{\sum w'_i} \tag{8}$$

**Table 3:** The importance coefficients of the strategies and indexes by using AHP-FUZZY

Indexes strategies	MC 0/353	MIC 0/235	CLC 0/238	HRP 0/157	RA 0/015	Efficiency	Rank
Cost Leadership Strategy	0/487	0/519	0/478	0/487	0/336	0/486	***
Differentiation Strategy	0/025	0/177	0/222	0/025	0/327	8/10	*
Segmentation Strategy	0/487	0/302	0/298	0/487	0/336	2/39	**

### 5- Conclusion

One of the issues that organizations consider too much in domestic and foreign markets is to develop appropriate marketing strategies to reach their target market and ultimately achieve their organizational goals. Since all institutions and companies activities not primarily lead to produce goods, and in many communities large forces are active in service industries and responsible for gross national product, so whatever the business affairs and activities be more complex, specialized and competitive then services affairs growth more, hence managers will be compelled to become familiar with marketing principles and techniques of marketing in providing services and satisfy the needs of their customers to run the organization better in today's active and competitive world.

We propose that the success of marketing strategy decision-making depends on firm's resources and capabilities. A fuzzy AHP analysis was used to evaluating the marketing strategies for competitive advantage, adopting the owner-managers point of view as reflected by goal approach. The emphasis has been on comparing the competitive advantage of private hotels in terms of managerial capabilities, customer linking capabilities, market innovation capabilities, human resource assets, and reputational assets.

After reviewing and ranking with AHP-FUZZY techniques, the Cost leadership, Classification and differentiation strategy respectively placed first to third and since cost leadership strategy has win the first rank so this strategy aims to achieve low cost product or service producer position in the market. More attention to these strategies and efforts to improve performance in the nongovernmental hotels of Mazandaran province can help to improve their status. In such competitive market following the right strategy lead to fix organization position (Hotels) in the industry. The Hotel That place in a proper position consider to its competitors, in addition to obtaining a higher profit than the industry average, it

will achieve higher performance, wider scope of supervision, wider participation of employees, reduce costs and etc.

In addition, since the overall indexes ranking, the management ability, ability to communicate with customers, ability to be innovate in market, having human resources and good reputation indexes respectively have been placed first to fifth. More attention to management abilities such as financial condition, operations management technology, services management and etc, which have been ranked first in importance, is needed.

The importance of the current study also emphasizes the importance to improve the practitioners' recognitions of the various resources and capabilities and their suitable allocation in the private hotels.

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