HYPER MARKET INDUSTRY IN DUBAI – AN EVALUATION USING AHP TECHNIQUE

M. Hemalatha, National Institute of Technology, Trichy
V. J. Sivakumar, National Institute of Technology, Trichy

Abstract

Among all retail formats hypermarket is growing very fast in UAE that is at the rate of 150 percent. The major players in this sector are Carrefour, Spinney's, United, Choithram and Lulu. The focus of the problem is selecting a best hypermarket among the existing operators of Dubai and for which we used seven major criteria for evaluating the hypermarkets such as product availability and variety, market coverage, channel density, customer density, nationality served, facilities and services and customer spending pattern. We used Analytic hierarchy process (AHP), developed by Thomas saaty (1980) to provide a simple but theoretically sound multiple criteria methodology for evaluating the alternatives.

Keywords

Hyper Market, Analytic hierarchy process, Multiple Criteria

Introduction about UAE Hyper Market Industry

The retail sector in the United Arab Emirates (U.A.E.) continues to grow and develop a process that began in earnest nearly 10 years ago. Annually, many new state of the art stores are added to the country's retail map, creating continuous competition among the major retailers. The new stores match Western retail establishments in size and variety. The estimated annual value of the U.A.E. retail market is $2.5 billion.

The estimated average annual growth in retail sales is 5-10 percent. First year retail establishments report higher growth rates than those claimed by established firms. Foods sold in retail outlets consist 75-80 percent of imported consumer-ready products, and 20-25 percent of locally processed foods.

The introduction of hypermarkets and superstores is re-shaping the retail sector. Hypermarkets openings increased 150 percent, reflecting the future market strength investors' hold for mega store operations. Superstore and supermarket openings grew only moderately, by 15 and 12.5 percent respectively. Convenient store openings are unknown, as no official data exists.

Retail development is concentrated in the three largest emirates of the UAE - Abu Dhabi, Dubai and Sharjah, home for nearly 75 percent of the population. Hypermarkets, superstores and supermarkets, despite their limited number, are estimated to account for nearly 50 percent of all retail sales. Smaller-sized groceries and convenience stores account for the other half.

Hypermarkets in UAE

Carrefour

The UAE's most dynamic, fast-moving and exciting hypermarket chain and it is a joint venture company by Majid al Futtaim. Carrefour France, this global expertise helps them to offer shoppers in the UAE the same quality, variety and value-for-money and stock over 100,000 items always. They are providing friendly staff, free parking, multiple checkouts to avoid waiting and of course some of the lowest prices, top names and best quality goods for the shoppers. Carrefour Working Hours is 9am to 12pm.

They have five main sections in their hypermarket such as Market, Consumer Goods, Light House Hold, Heavy House Hold and Textile. Carrefour hypermarket accepts the currencies such as UAE Dhs, US Dollars, Saudi Riyals, Kuwaiti Dinars, Omani Riyals, Qatari Riyals, Bahraini Dinars and Euros. In UAE they have stores in Abu Dhabi Airport Road, Abu Dhabi - Marina Mall, Ajman City Centre, Al Ain AL Jimi Centre, Dubai - Deira City Centre, Dubai - Al Shindagha, Dubai - Al Mamzar Century Mall, Dubai - Mall of the Emirates, Ras Al Khaimah Manar Mall and Sharjah City Centre.

Spinneys

Spinneys is considered as a company of great repute with a leading position in both retailing and wholesaling of consumer goods. Spinneys has been established for over 41 years and the brand has a well deserved reputation for quality and service. This Retail Chain in the Middle East was first started in 1924 in Alexandria by Arthur Rawdon. Spinneys Dubai have long been established as a premier retail outlet offering a wide product range, best quality, friendly service and convenient shopping. In April 1999, Ali Albwardy took 100% ownership of the Spinneys Dubai Group. The company operates ten retail outlets in Dubai and four in Sharjah. The largest is at the Mercato Centre with 40,000 sq ft.area.

LuLu Hypermarket

LuLu Hypermarket symbolizes quality retailing and has been an instant hit with the discerning customers in the UAE. With its pleasant and novel variation by integrating all the conceivable needs of the consumers under one roof, the Hypermarkets have extensively laid out counters, sprawling parking space, play area for children, food court, money exchange centers and bank counters besides a panoply of international and regional brands.

It caters to the divergent needs of the shoppers and transforms shopping into a pleasurable outdoor activity underlining once again the group's commitment to offer the customer only the best. Poised on the success of the pioneer Hypermarket at Al Qusais - Dubai, the chain is spreading its wings across the UAE, with Fujairah outlet in full swing, and extending to other countries beginning with Qatar and Kuwait.

United Hypermarket

United in the UAE, that continues to grow each year and attract broad-base support, particularly from U.A.E. nationals, Arab expatriates and other expatriates in the low-to-medium

income bracket. It is generally cater to local and Arab clientele and are known for competitive prices on but a limited range of products. In Dubai they have 8 branches in various areas like Satwa, Rashidiya, Hamriya, Awir, Tawar, Mankhool, Jumeirah and Ras al khore. But now they are planning for Ras Al Khore.

Choithram & Sons (TCS)

T. Choithram & Sons (TCS) it is an International hypermarket which has a sales value of 46 million US$ every year. Choithram has 27 branches in the gulf Region. It target mainly Indians and it is owned by Indian.

Literature Review

Óscar González-Benito (2002) examined the impact on demand of the competitive positioning strategies developed by the leading hypermarket chains in Spain. Specifically, the purpose is to carry out a geodemographic and socioeconomic characterization of the potential consumers of each chain. As retail attraction has traditionally been divided into three components, distance, mass and image, a gravitational model is proposed which distinguishes them and facilitates the evaluation of existing differences across any a priori segmentation base. The empirical test identifies significant geodemographic differences in the retail attraction of hypermarket chains. Chains seem to target the whole market by developing an image balanced against the advantages and disadvantages derived from the spatial coverage strategy. Social class is not as good an indicator of hypermarket choice as expected, although some interesting patterns have been detected.

Carlos Pestana Barros' and Carlos Alves (2003) estimates total productivity change and decomposes it into technically efficient change and technological change for a Portuguese retail store chain with data envelopment analysis. The benchmarking procedure implemented is an internal benchmarking, where the stores in the chain are

compared against each other. The aim of this procedure is to seek out those best practices that will lead to improved performance throughout the whole chain. In this study they rank the stores according to their total productivity change for the period 1999–2000, concluding that some stores experienced productivity growth while others experienced productivity decrease.

In 2005, Óscar González-Benito, Pablo A. Muñoz-Gallego and Praveen K. Kopalle aims to analyze the role of store format in retail competitive interactions, specifically, the relationship between growth, location strategy, and market response. To assess this relationship, they propose an extension of the classic models of spatial interaction, which incorporate the asymmetric competitive effects linked to the concept of store format. An empirical application allows confirming greater spatial rivalry within store formats (intra-format) than between stores formats (inter-format). This implies a certain hierarchical organization when consumers select a retail store, first choosing the type of store at which they will shop and later a particular store within this format.

Carlos Pestana Barros (2005) analysed the technical efficiency of a Portuguese hypermarket retail chain, in order to investigate the chain's performance. A stochastic Cobb-Douglas cost frontier model is used to generate retail chain efficiency scores. It is found that the chain's efficiency scores are high for some outlets and low for others. Therefore, the author proposes a modification of management procedures in order to enable efficiency to be increased, based on a governance-environment framework.

In 2006, Carlos Pestana Barros analysed a representative sample of hypermarkets and supermarkets working in the Portuguese market, using a benchmark procedure to compare companies that compete in the same market and thereby deriving managerial and policy implications. A two-stage procedure to benchmark the companies was adopted. In the first stage data envelopment analysis (DEA) is used and in the second stage a Tobit model is employed to estimate the efficient drivers.

Ricardo Sellers-Rubio and Francisco Mas-Ruiz (2007) compared different approaches to the evaluation of economic performance in retailing. For the first time in retailing, this essay simultaneously applies traditional productivity measures as well as parametric and non-parametric techniques to estimate efficiency, and compares the results obtained. The empirical application is carried out on a sample of 491 retailers operating in Spain in 2004. The results reveal important differences depending on the methodology employed. Overall, none of the methodologies can be said to be better than the rest.

In 2008 Justo de Jorge Moreno in his study aims to present an approach for analyzing hypermarkets efficiency data envelopment analysis (DEA) in Spanish retailing. In particular, the influence of the Retail Trade Act of 1996, by means of which the Spanish state transferred authority to concede licenses for opening commercial establishments to the regions, is to be studied. The findings suggest the existence of three different production frontiers in relation to the markets' regulation process where the hypermarkets operate; high, medium and low regulation. In the second place, the effect of the regulatory restrictions carried out by the autonomous communities is corrected in the second stage. This correction allows the hypermarkets operative in areas with low restrictions to be more efficient than those located in areas of greater regulation.

Research Methodology

This research is based on both primary and secondary data. Personal observation is conducted among the retail outlets to collect the details about the subjective factors selected for the study. The secondary data has been collected from the internet, brochures and hand bills of the retailers, government agencies and publications. The data is collected from 5 leading hypermarkets in Dubai. The analysis is done using Analytic hierarchy process (AHP) developed by Thomas saaty (1980) to evaluate the best retailer.

Analytic Hierarchy Process (AHP)

Analytic hierarchy process (AHP) was developed by Thomas saaty (1980) to provide a simple but theoretically sound multiple criteria methodology for evaluating alternatives. Applications can be found in such diverse fields as portfolio selection, transportation planning, manufacturing system design and in Artificial Intelligence, just to name a few.

The strength of the AHP lies in its ability to structure a complex, multi person, multiattribute problem hierarchically, and then to investigate each level of the hierarchy separately, combining the results as the analysis progresses. Pair wise comparisons of the factors (which depending on the context may be alternatives, attributes, or criteria) are undertaken using a scale indicating the strength with which one factor dominates another with respect to a higher level factor. This scaling process can then be translated into priority weights or scores for ranking the alternatives.

AHP start with the hierarchy of objectives. The top of the hierarchy focus on a problem statement. At the next level major considerations are defined in broad terms. This is usually followed by a listing of the criteria for each of the foregoing considerations. Depending on how much detail is called for in the model, each criterion may then be broken down into individual parameters whose values are either estimated or determined by measurement or experimentation. The bottom level of hierarchy contains the alternatives or scenarios underlying the problem.

We have done pairwise comparison of the alternative with respect to each criteria, similarly each criteria is also compared in the same manner. Here we have assigned codes such as C1 for Carrefour, C2 for Spinney’s, C3 for Choithram, C4 for United and C5 for LuLu hypermarket. Similarly we have assigned codes for the criterion such as MC for Market Coverage, PAV for

Product Availability and Variety, NA for Nationality Served, FS for Facilities and Services, CS for Spending Pattern, ChD for Channel Density and CuD for Customer Density

Market Coverage

Market covered such as more countries covered in GCC and emiratewise coverage is compared and pairwise comparison is made among the five retailers and preferences is allocated as below.

Table – 1 Market Coverage

	C1	C2	C3	C4	C5
C1	1.00	2.00	0.33	5.00	4.00
C2	0.50	1.00	0.25	4.00	3.00
C3	3.00	4.00	1.00	7.00	6.00
C4	0.20	0.25	0.14	1.00	0.50
C5	0.25	0.33	0.17	2.00	1.00

Product Availability and Variety

Product availability and variety of merchandise such as Vegetables and Fruits, FMCG and Provisions, Electronics, Dress materials and Fashion Accessories, Cosmetics, Perfumes, Furniture and Accessories, Bakeries, Magazine, Sports Items, Stationary Items, Cookware and Children wear are compared among the five alternatives as in the table below.

Table – 2 Product Availability and Variety

	C1	C2	C3	C4	C5
C1	1.00	6.00	9.00	5.00	1.00
C2	0.17	1.00	3.00	0.50	0.17
C3	0.11	0.33	1.00	0.33	0.11
C4	0.20	2.00	3.00	1.00	0.20
C5	1.00	6.00	9.00	5.00	1.00

Nationalities wise Classification of Consumers of Hypermarkets

The target market of the hypermarket is compared and pairwise comparison is done. More importance is given to those who cover majority of the nationality residing in Dubai. So for this purpose Nationalities like Local Arabs, Expat Arabs, Indians, Pakistanis, Other Asians, Europeans and Africans targeted by the retailers are assessed.

Table – 3 Nationality Served

	C1	C2	C3	C4	C5
C1	1.00	1.00	0.33	5.00	0.33
C2	1.00	1.00	0.33	5.00	0.33
C3	3.00	3.00	1.00	7.00	1.00
C4	0.20	0.20	0.14	1.00	0.14
C5	3.00	3.00	1.00	7.00	1.00

Facilities and Services in the Hypermarkets

Facilities and services provided by the hypermarkets such as Access to Transportation, Location, Fitting room, Toilets, Prayer Room, Waiting space, Elevators, Restaurant and Parking are compared to evaluate them.

Table – 4 Facilities and Services

	C1	C2	C3	C4	C5
C1	1.00	1.00	6.00	2.00	0.33
C2	1.00	1.00	6.00	2.00	0.33
C3	0.17	0.17	1.00	0.20	0.13
C4	0.50	0.50	5.00	1.00	0.25
C5	3.00	3.00	8.00	4.00	1.00

Spending Pattern of the Consumers

The average amount of purchase made by a consumer during peak hours in the peak days for different hypermarkets are observed. We made pairwise comparison as in the table below.

Table – 5 Spending Pattern

	C1	C2	C3	C4	C5
C1	1.00	5.00	5.00	3.00	0.33
C2	0.20	1.00	1.00	0.33	0.14
C3	0.20	1.00	1.00	0.33	0.14
C4	0.33	3.00	3.00	1.00	0.20
C5	3.00	7.00	7.00	5.00	1.00

Channel Density

More the counters, less is the waiting time for the customer and the customer satisfaction will be more at the same time. So we allocated the ratings based on the number of counters in the hypermarkets.

Table – 6 Channel Density

	C1	C2	C3	C4	C5
C1	1.00	7.00	7.00	3.00	0.33
C2	0.14	1.00	1.00	0.20	0.11
C3	0.14	1.00	1.00	0.20	0.11
C4	0.33	5.00	5.00	1.00	0.20
C5	3.00	9.00	9.00	5.00	1.00

Customer Density

The number of consumer purchases and leaves the counter during peak hours in the peak days is assessed and rated as below.

Table – 7 Customer Density					
	C1	**C2**	**C3**	**C4**	**C5**
C1	1.00	1.00	3.00	0.50	0.20
C2	1.00	1.00	3.00	0.50	0.20
C3	0.33	0.33	1.00	0.33	0.14
C4	2.00	2.00	3.00	1.00	0.25
C5	5.00	5.00	7.00	4.00	1.00

Conclusion

We used three level hierarchy developed for evaluating five different hypermarkets in the hypermarket Industry of Dubai (UAE). The focus of the problem is selecting a best hypermarket among the existing operators of Dubai and the seven major criteria such as product availability and variety, market coverage, nationality served, facilities and services provided, customer spending pattern, channel density, customer density are determined for the above evaluation.

Table 8 Local and Global Priorities for evaluating five different competitors in the hypermarket Industry of Dubai

	Local Priorities							
Alternative	**NC** 0.09	**PAV** 0.32	**NA** 0.17	**PS** 0.04	**CS** 0.17	**ChD** 0.04	**CuD** 0.17	**Global Priorities**
C1	0.23575	0.39775	0.13461	0.19224	0.25785	0.26700	0.11355	**0.2521**
C2	0.15290	0.07063	0.13461	0.19224	0.05257	0.03825	0.11355	0.0968
C3	0.49657	0.03500	0.34687	0.03596	0.05257	0.03825	0.05125	0.0911
C4	0.04578	0.09888	0.03703	0.11773	0.12222	0.13714	0.18108	0.1044
C5	0.06901	0.39775	0.34687	0.46184	0.51480	0.51936	0.54057	**0.4137**

So based on our evaluation LuLu (C5) is a best hypermarket operating in Dubai and the next best hypermarket is the Carrefour (C1). In this global competitive scenario, as a part of managerial implication, retailers can make use of this model for evaluating various retail mix and also for scrutinizing competitor's performance.

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