A Case Study About Retailing Market of Industrial Sector in Turkey

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Abstract

Retailing is a distribution channel function where one organization buys products from supplying firms or manufactures the product themselves, and then sells these directly to consumers. A retailer is a reseller (i.e., obtains product from one party in order to sell to another) from which a consumer purchases products[2-3]. As a reseller, retailers offer many benefits to suppliers and customers as we discussed in the Distribution tutorial. For consumers the most important benefits relate to the ability to purchase small quantities of a wide assortment of products at prices that are considered reasonably affordable. International retailers often arrive in emergent markets because their home retailing market is saturated, and growth requires stealing market share from the competition. That's not typically the case in emergent markets, which is part of their appeal. In emergent markets, growth depends primarily on attracting both occasional shoppers and repeat customers for whom contemporary malls and stores are a relatively new experience. The key challenges involve reaching these customers, educating them about organized retailing, and helping them smoothly transition to what for them is a new way of shopping. In Turkey, there is no scientific method that can be applied during making an investment in retailing industry. It is really a big deficiency that these investments cannot be based on strong fundamentals. In this study, a model is built, in order to help an investor to decide on whether to make an investment or not in a specific location. As a result of the study, the organized food retailing rates and volumes for each city is found. In other words, the behaviour of people to meet their needs by organized retailing is modeled. In this model, five factors are determined, that affect the organized retailing rates for each city. These are gross domestic product per catia, education level, urbanization level, number of vehicles and number of firms in each city. A model is built after making various analysis on these factors.

Keywords
Customer; Investment; Market; Modelling; Retailing

1. Introduction

Retail initiatives are by their nature launched into geographically defined markets, which makes them immediately visible to competitors. These initiatives, whether they involve new promotional efforts, new product lines, or even new locations, typically have only a short window within which to achieve profitable market penetration before they are duplicated and any monopoly power diffused. Therefore, retailers must concentrate their efforts on gaining the fastest spread and the deepest penetration of acceptance of new initiatives across their market areas. Managers who understand the geography of the processes by which consumers change their behaviors can be much more successful in launching new initiatives and can make much better use of their resources while doing so[1]-[5]. Retailing was a very fragmented industry in most countries 25 years ago. Through internal growth as well as mergers and acquisitions, an enormous consolidation has taken place in the industry. Over the past year, Metro of Germany has become the second largest retailer in the world after adding Kaufhof, Asko, Deutsche SB-Kauf to their portfolio. The result is that Metro's sales in 1996 were 57.4 billion dollars worldwide, up three-fold, from 18.8 billion dollars in 1990. Besides there have been several cross-border mergers and acquisitions. Royal Ahold of Netherlands has been one of the most active on this front with their acquisitions of Stop and Shop, Bi-Lo, Giant, Tops, Finast, Edwards among others in the USA and most recently Bom Preco, a 50 store grocery chain, in Brazil.

These mergers and acquisition are driven by several factors.

1. Strong retailers because of their cash management system of cash sales to customers while buying on credit from suppliers are sitting on heaps of cash.
2. Retailers feel that size brings them bargaining power versus suppliers, and therefore, helps reduce what for many retailers is their biggest expense--COGS or cost of goods sold.

3. There are the more traditional economies of scale. If the same products are available through several retailers, then cost control becomes one of the, if not the, paramount driver of profitability.
4. Many developed countries have strict restrictions on opening large new stores (e.g. Spain, Italy, and Japan), over-stored environments (e.g. France, Germany), adequate size (e.g., Switzerland) leaving mergers and acquisition often the only domestic expansion strategy available[28-15].

Consolidation has several implications for both manufacturers and retailers. It makes it much harder for the independent retailers to succeed as they just cannot buy as efficiently or invest enough in technology to keep their operations competitive. Thus despite the efforts of many governments to protect the small, independent retailer, we will continue to see M&A activity in the industry moving at a hectic pace. For manufacturers this continuing consolidation in points of sale is worrying. As retailers learn how to integrate their mergers and acquisitions more tightly, especially with respect to sourcing, the pressure on manufacturers will undoubtedly increase[5]-[13]. Many of the premier manufacturers who were previously operating as branded bulldozers have now been shocked into talking 'partnerships.' However, partnerships often mean very different things to manufacturers and retailers thereby leaving one party rather unsatisfied with the entire experience, usually the manufacturer.

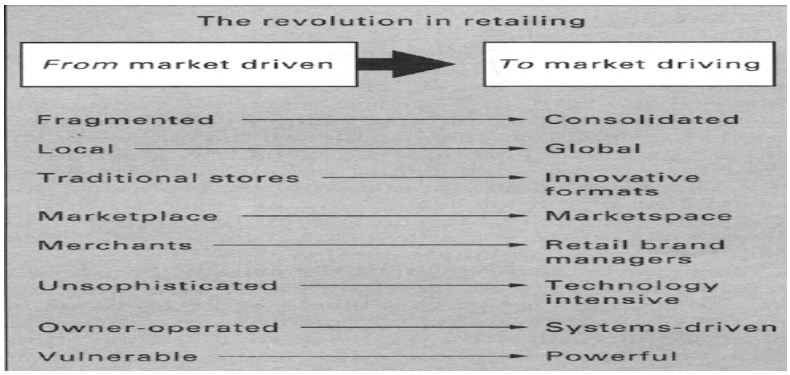

FIGURE 1: The Revolution in Retailing

With the growing number of retail businesses and the "overstoring" of countries, the competitive advantage of one retail institution type over another is an important consideration in the evaluation of any retail changes. Competitive advantage is defined as "the distinctive competences of a firm and the factors critical for success within the industry that permits the firm to outperform its competitors. Advantages can be gained by having the lowest delivered costs and/or differentiation in terms of providing superior or unique performance on attributes that are important to customers" [2].Kim(2006)[28] mentioned that the major attributes for achieving competitive advantage are price, location, merchandise assortments, promotion, services, layout, and organization. Retail institutions need to have a competitive advantage, one that their competitors cannot easily imitate. To achieve competitive advantage, retailers modify their operations and retailing mix based on their target segment's value schema(Figure 1). This modification process, used to acquire competitive advantage, very often results in the evolution process of retail institutions[8]-[20].

1.1. The New Retaıl Imperatıve

The retail industry has undergone a painful period of cost reductions and contraction. Retailers, already accustomed to operating with low margins, in recent years have had to reduce store count, head count, store square footage, inventory and selection, supplier networks, and expansion plans. Retailers that have managed to survive the shakeout can look ahead with a sense of optimism. Yet overall operating conditions will remain challenging[9]-[10]. Customers are more demanding than ever, and competition has intensified due in part to globalization. Customers have now grown accustomed to certain regular price reductions and will expect similar discounts going forward. Additionally, customers' reliance on the Internet will only increase, placing an even greater emphasis on price, selection, and the integration of the in-store and online shopping experience. Meanwhile, evolving technologies, especially in e-commerce, add operational complexity and allow new competitors to encroach, while also vastly expanding retailers' potential reach. To achieve lasting advantage in this environment, retailers will need to step up their game and operate more effectively and efficiently than they do today[11]. They can do this by focusing on six primary levers while building the necessary capabilities to sustain performance (Figure 2).

The payoff can be sizable. We have seen retailers lower their cost structure by as much as 30 percent while improving flexibility, agility, labor productivity, and the efficiency of their existing investments. Retailers must look

for improvements within the context of a clearly defined value proposition, target markets and customers, business model, formats, banner, and product and service choices. A retailer's inherent cost structure, complexity of operations, and differentiated capabilities will logically flow from these choices, and the operating model must also be designed to fully support it[7]. The six levers address elements of a retail business that require significant investments or are labor intensive. Properly applying each one will have cascading implications for the organizational structure, business processes and technology, and talent. The difference between achieving basic or best practice improvements can dramatically affect both spend and competitiveness[13].

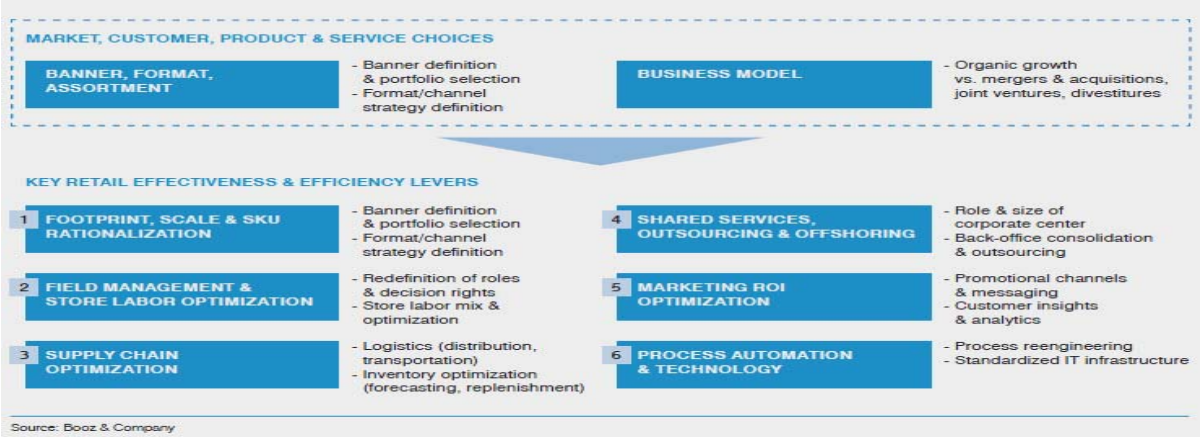

FIGURE .2
Primary Levers for Improving Retail Operations

2. Literature Review

2.1. Recent Transformations and Resilience Strategies in Turkey's Retail Sector

The recent changes in Turkey's retail sector due to changing economic policies and consumption patterns from the influence of global trends and long-lasting EU relationships have been discussed in earlier research in detail [16-20]. The resulting changes in government policies and related legislation have mostly aided big capital to invest in shopping malls, gated communities and office towers to provide high-income groups a globally crafted life. Because of these developments, traditional forms of retail businesses and urban streets are experiencing a decline and need to attract customers in various new ways (see TMMOB-Chamber of Architects, 2011 for a detailed discussion on the developments and changes in the retail sector inTurkey). Small and independent firms have dominated the retail sector in Turkey for longer than in most countries. Traditional open and closed bazaars in the Ottoman period, which had been replaced by convenience stores–grocers (bakkal), green grocers (manav) and butchers (kasap) in the Republican period have continued to be a major part of Turkish retailing in many cities and towns until today (Ozcan, 2000). The recent developments in the Turkish retail sector, however, have negatively influenced less organized or unorganized portions of the sector, resulting in a decrease in the number of small- and medium-scale shop. In Turkey, small-and medium-sized retailers' resilience strategies tend to be reactive. Such strategies can be at different levels, depending on the scale and adaptive capacity of retailers as well as on their links with the more organized segments of the sector. Small-scale traditional and more organized retailers with large capital follow different routes to resilience, yet there are common strategies that would smooth the road toward a more organized retailing environment in general. Improved sanitation and longer service hours are the resilience forms mostly adopted by street vendors such as bread vendors, second-hand goods vendors and lottery ticket vendors (simitci, eskici and piyangocu, respectively). Street vendors are an indispensable component of retailing in Turkey. Their organizational potential is weak, yet they have adapted to decreased demand by improving their food-preparation standards, using better and cleaner service stands (in some cases provided by the municipality) and selling their products at night to prevent competition from more organized retailers. Kearney[13] points out the intensifying competition between organized corporate and independent informal retailers for urban space in India. In Turkey, informal retailers lost this battle and those who remain active try to adopt strategies that help them to be or look more organized and modern. Small grocery stores have adapted also by improving sanitation and by offering home delivery services throughout their working hours. This group of retailers practices traditional values (neighborliness and mutual trust and tolerance) and informal business transactions (negotiation, bargaining and buying on tick), although these types of attitudes and customs are decreasing in this sector, as well as in society overall.

Changing a shop's image and inventory by adding new products or changing target groups are also among this segment's frequently applied strategies. There are many examples of retailers adapting by aiming at higher-income or lower-income targets, either by improving their quality of merchandise, displays and services or by selling lower-

quality goods. Publicity and personalized advertising strategies that increasingly rely on the Internet, SMS messages and e-mail are likewise being included in communication strategies. Such retailers might offer discounts on certain articles on special days and gifts on celebration days (Mother's Day, Women's Day, etc.), following the examples of large retailers. Organizing through chains is another strategy for some small and traditional distributors to compete with the more organized segments of the sector and to survive in a more global retail environment. This process generally requires the involvement of large capital, and is thus not an option for many retailers. The most recent example in Turkey is Fayda, inaugurated in 2008. It brought together 73 local-market chains with 852 shops in 23 cities (Fayda A.S., 2012). The discount market chain BIM A.S. has more than 2665 stores across Turkey and is growing fast, with a plan to open about 300 stores per year [19]. SOK is an example of large domestic capital (Migros formed SOK, a discount brand that it recently sold to another market leader, the Ulker Group[18].

2.2. From Traditional Stores to Innovative Formats

The past 25 years has seen the emergence and growth of several new retail formats and concepts. Today, we see the supermarket, department store, hypermarket and supercenter, discount store, cash and carry warehouse club, factory outlets, category killer, convenience store, specialty retailer, as well as the gas station all competing for the same customer[24].Undoubtedly, of all the formats, the 'big box' (category killers, large discount stores, warehouse clubs andby supermarkets) have had the most revolutionary impact. Their enormous purchasing power which results in lower cost of goods sold and economies of scale puts severe pressure on the traditional formats.Department stores in several countries have either eliminated or severely cut back on their toy department in the face of competition from Toysrus. The independent car dealer in the United States and United Kingdom now faces the emergence of category killers such as Car Max and Car Supermarkets respectively who compete for the profitable used car business[26-30]. Clearly, in the future the Internet will revolutionalize retailing in the developed world. The Amazon bookstore which sells books through the lnternet only is a prime example of the revolutionary potential of Internet. In contrast to the traditional book industry which is drowning itself in excess inventory because it cannot develop an effective returns policy, Amazon carries no stocks as the books are shipped directly from the book wholesalers. As a result Amazon incurs close to zero inventory and real estate costs while potentially reaching customers across the world. Furthermore, they offer customers a much wider assortment, lower prices, quicker access to newly released books, and no-travel hassle flee home shopping compared to the high street bookstore.

A new development, 'intelligent shopping agents' which rapidly search the Internet for the lowest price on a product are also slowing emerging. If they become widespread, retailers may face greater price pressure in categories where the customer does not need to feel, see or touch, and where the customer does not desire instantaneous delivery (unless the product can be downloaded). The retailer's competitive focus will shift from the marketplace to the marketspace[14-15]. The traditional formats, especially the supermarket and department store, with their high costs will see more and more customers flee to these new formats in search for better value. To justify their higher costs, supermarkets and department stores have to find ways to increase the value they provide to the customer[13]. Perhaps this may be through higher customization in their services, unique assortments, and/or creating a boutique (e.g. shop within a shop) specialty feeling. If traditional stores carry similar assortments as these new lower-cost formats and delivery innovations negate their locational advantage, they cannot compete on product and price. The new formats offer both new opportunities and challenges for manufacturers. As the market moves in the direction of the new formats, leading manufacturers have little choice but to enter these outlets forcefully. Smaller manufacturers may, however, develop a distinctive market positioning through an exclusive focus on the traditional formats[11].

3. Research Methodology

3.1. Retailing in Turkey

The retailing companies in Istanbul Stock Exchange get high profits on the index. This year, small retailers like grocers and butchers take the highest damage in retailing sector. The grocers, that constitute 64% of Turkey's retailing sector, cannot follow the increasing competition, the improving technology and the modern management techniques. For this reason, they start to leave the market to the ''chain 'and ''hyper'' stores. The sociological changes and improvements of Turkish people, force the consumers to go to more modern shopping centers. 3,5%population growth rate, 8,5% urban population growth rate, the improvements in the income level, the prevalence of credit cards and the prevalence of credit cards and the assortment of consumer products in the markets, are some examples to these changes and improvements. As a consequence ,the 9% market share of super markets and hypermarkets in the last 4 years increases up to 31% this year .The retailing industry in Turkey has a size of about $30 Billion. In this cake markets has spare of 36,4% and grocers has a share of 64%.It is estimated that the share of grocers will decrease to 49% and the share of hyper and chain markets will increase up to 75% in the year 2012.

When we examine the largest 5 chain markets in Turkey, we see that the total share of them in the total food retailing industry is about 4%.This ratio is about 50% in Europe. In England the market share of chain and hypermarkets is 82%,in France 37%.When we compare with these examples, we conclude that the retailing industry

in Turkey has a great potential of development. The retail industry begins in 1950's with Migros and Gima, but the real change in industry occurred after 1990's.Grociers used to be the dominant in retailing at early times but after 1990's more variety of products and greater sales area started to gain importance. The below table also shows the decrease in the number of grocers and it is considered that the number of grocers will lose their market share against markets, supermarkets and hypermarkets.

TABLE 1. Number of Retailing shops by category

Classification	**Sales Area (m^2)**	**2004**	**2008**	**2012**	**2013**
Hypermarket	>2500	14	200	205	360
Supermarket(big)	1000-2499	58	278	327	450
Supermarket(middle)	400-999	187	687	696	920
Supermarket(small)	100-399	773	1,970	1,793	2,070
Market	50-99	9,176	16,196	15,247	16,000
Groceries	<49	66,925	255,420	268,925	290,000
Total		77,133	269,751	284,593	293,500

In the Retail Industry Endorsement Table 1, the market loss of grocers can be easily seen. According to this, in 2011,groceries used to have 66,9% of industry endorsement, in 2013 this ratio decreased to 56%.In this period,markets,supermarkets and hypermarkets successfully increased their endorsement ratios according to grociers.The reasons for ''hyper and supermarkets' 'endorsement to grow rapidly after 2011's can be explained with rapid growth in the economy, increase in GDP,existence of a young and dynamic population and increase in the number of people working in this industry.

TABLE 2. Endorsement Ratios in Retailing

Classification	**2011**	**2012**	**2013**
Hyper&Supermarkets	17,4	24,4	28
Market	15,9	15,3	16
Groceries	66,7	60,3	56
Total	100	100	100

Figure 3 shows how much the expenditures of households at Marmara and Aegean region are. So,the establishments in the industry are generally concentrated on this region.

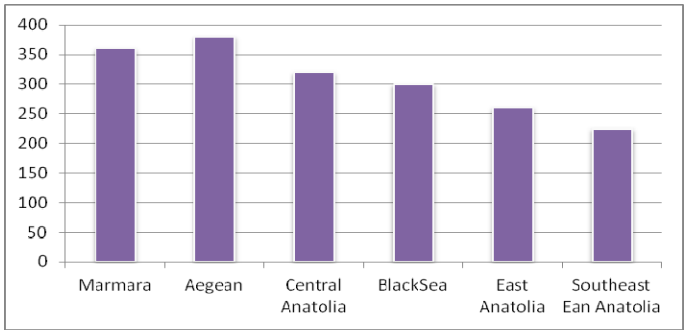

FIGURE 3 . Montly Household Expenditure According to Regions(US$)

3.2. Market Research

It is important to start marketing and stragetic planning with an inside-outside point of view. Management needs to monitor the larger forces in the marketing environment if it is to keep its products and marketing practices current.But how can management learn about changing customer wants, new competitor initiatives,changing distribution channels,and so on?The answer is clear ;management should develop and manage information. Many companies have not yet adapted to the intensified information requirements for effective marketing in the 1990s.Three developments render the need for marketing information greater than any time in the past: From local to national to global marketing: As companies expand their geographical market coverage, their managers need more market information than even before. From buyer needs to buyer wants: As buyers' income increase, they become more selective in their choice of goods. Sellers find it harder to predict buyers'response to different features, styles, and other attributes, unless they turn to marketing research. From price to non-price competition: As sellers

increase their use of branding ,product differentiation, advertising, and sales promotion, they require information on the effectiveness of these marketing tools.

3.2.1. Suppliers of Market Research

A company can obtain market research in a number of ways. Small companies can engage students or professors at local university to design and carry out the project, or they can hire a market research firm. Larger companies, on the other hand, have their own market research departments. Current study in small part of the program that is running by the Investment Department of the Migros A.S.

3.2.2.The scope of Market Research

There are many types of researches, which differ by the nature and by the objectives. Here is the list of types of research generally having place in marketing: A. Business/Economic and Corporate Research ; B. Pricing ; C. Product; D. Distribution; E. Promotion F. Buying Behavior. The scope of the study includes the business/economic and corporate research. The market characteristics and trends were investigated and the market share analysis of the retailing industry in Turkey was provided. So it is the first step of the global program in the research department of Migros.The next steps will providing good researches in order to define policies about pricing, distribution, segmentation, promotion and buying behavior.

3.3.3. The Market Research Process

Effective market research involves five main steps[28-29].These are:

A.Defining the problem and research objectives
B.Developing the research plan
C.Collecting the information
D.Analyzing the information
E.Presenting the findings

A.Defining the problem and research objectives

The first step calls for the marketing researcher to define the problem carefully and agree on the research objectives. The objective of this research is to identify the total potential of the retailing marketing in each province of Turkey.

B.Developing the research plan

This step calls for developing the most efficient plan for gathering the needed information.The marketing manager cannot simply say to researcher, ''Find some buyers and ask them about where they used to buy things''.The marketing researcher has the skills to design the research approach.

The designing of the research plan calls for decision on the data sources.There are two types of data used in a research;secondary and primary data .Secondary data consist of information that already exists somewhere,having been collected for another purpose.Primary data consist of original information gathered for some specific purpose. Secondary data:It is obvious that researchers should start their investigation by examining secondary data to see whether their problem can be partly solved or wholly solved without collecting costly primary data. Here is the table that shows the secondary data sources available in Turkey. This is really a problem with this type of data, because it is either very poor, or old, or even false.

- **Internal Sources:** Include company profit-loses statements, balance sheets, sales figures, invoices, inventory records and prior research reports.
- **Governmental Publication:** These are statics collected and updated by government. This data should be updated annually, but it is found that they were not.
- **Periodicals and Books:**The researches about Turkey provided in Capital and Power magazines were used in our research.
- **Commercial data:**This is the data provided by commercial units such as A.C. Nielsen Company.This type of data was not used due to the lack of financial support.

Primary data:Most market research projects involve some primary-data collection.The normal procedure is to interview with some people individually.In this study,primary data was provided from the interviews with the managers of local Migros centers in provinces.

C.Collecting the information

The researcher must now collect the data.This phase is generally the most expensive and the most expensive and the most expensive and the most liable to error.In the case of surveys,four major problems arise.Some respondents will not be at home and must be re-contacted or replaced.Other respondents will refuse to cooperate.Still others will give biased answers.Finally,some interviewers will occasionally be biased.

D.Analyzing the information

The next step in the market research process is to extract findings from the data. The researcher tabulates the data and develops one-way and two-way frequency distributions.The researcher will also apply some advanced statistical techniques and decision models in the hope of discovering additional findings.

E.Presenting the findings

The researcher should not try to overwhelm management with lots of numbers and fancy statistical techniques-this will lose them.The researcher should present major findings that are relevant to the major marketing decisions facing management

3.3. Model Building, Model Adequacy and Validation

By model building, we mean writing a model that will provide a good fit to a set of data and will give good estimates of the mean value y and good predictions of future values of y for given values of y for given values of the independent variables. Our independent variables(input variables) are factors(I,E,IN,U,C) and the dependent variable is OFRR.As we stated before,all input variables have significant relation to the output variable. So it is considered the regression model to be valid. Regression analysis is a branch of statistical methodology concerned with relating a response y to a set of independent,or predictor,variables $x_1,x_2,.....x_k$ and to do so with a small error of prediction. The independent variables used are quantitative,which is one that assumes numerical values corresponding to the points of line.The interrelations between the input variables were checked first.For a regression model to be valid,the independent variables should not have significiant correlations.If any exists,one of the correlated variables should be excluded. The correlation matrix of the input variables is present in Table 3.

TABLE 3. Correlations between input factors

	I income	C Number of cars	U urbanization	IN industrialization	E education
I income	1	0,56	0,3	0,503	0,528
C number of cars		1	0,224	0,534	0,614
U urbanization			1	0,373	0,357
IN industrialization				1	0,532
E education					1

The most difficult part of a multiple regression analysis is the formation of a good model E(y),or E (OFRR)(1).The complete multiple regression linear model looks like :

$$E(OFRR)=\beta_0+\beta_1 I+\beta_2 E+\beta_3 IN+\beta_4 U+\beta_5 C+e \quad (1)$$

The input data for the model is summarized in the following Table 4.

TABLE 4. Parameter Values for Input Provinces

Province	**I**	**C**	**U**	**IN**	**E**	**OFRR**
Adıyaman	$ 958	0,031	0,58	0,000050	17,62	16,50
Diyarbakır	$ 1,500	0,023	0,65	0,000025	16,54	22,00
Erzurum	$ 1.158	0,028	0,59	0,000049	30,54	22,00
Maraş	$ 1.495	0,055	0,55	0,000119	19,44	18,70
Mersin	$ 2.684	0,111	0,63	0,000276	25,64	33,00
Gaziantep	$ 1.824	0,106	0,77	0,000513	19,78	24,20
Adana	$ 2.780	0,137	0,76	0,000249	30,53	27,50
Elazığ	$ 1.966	0,063	0,64	0,000112	36,38	16,50
Hatay	$ 1.978	0,118	0,49	0,000145	26,45	19,80
Van	$ 970	0,031	0,50	0,000032	19,65	11,00
Aydın	$ 2.505	0,141	0,52	0,000230	26,49	14,08
Balıkesir	$ 2.367	0,152	0,52	0,000195	36,39	10,67
Denizli	$ 2.317	0,146	0,47	0,000977	28,38	12,98
Izmir	$ 3.063	0,149	0,82	0,000664	40,30	49,17
Manisa	$ 2.853	0,133	0,56	0,000320	26,35	9,57
Muğla	$ 3.315	0,191	0,38	0,000088	29,04	51,26

To compute the model coefficients and test the model for the validity we entered the available data into SPSS software.We used the 95% significance, which means that our output will be at least 95% true.After entering the inputs we run the regression and took the model summary.The summary of the analysis consists of three main types; model summary,regression coefficients and ANOVA test. There are two measures of the goodness of any model; model adequacy and model validity.The first deals with how best the model fits the input/sample data. The measures

for these are overall R^2 and the F tests(ANOVA).Several models were tested for the adequacy. Here is the example of such a test.The tested model is linear combination of all input variables. The results are tabulated below Tables 5, 6, and 7.

TABLE 5. Model 1 Summary

Model	R	R Square	Adjusted R Square	Std.Error Of The Estimate
1	,858	,737	,572	6,9855

TABLE 6. ANOVA summary for Model 1

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1092,947	5	218,589	4,479	,030
	Residual	390,383	8	48,798		
	Total	1483,330	13			

TABLE 7. Regression Summary for Model 1

Model		B	Std.Error	t	Sig.
1	(Constant)	-23,162	12,045	-1,923	,091
	Income	,121	,082	1,465	,181
	Car	-,134	,109	-1,227	,255
	Urbanization	,519	,225	2,313	,049
	Industrialization	7,363E-03	,010	,762	,468
	Education	2,178E-02	,340	,064	,951

The results show the satisfactory fitness of data to regression equation. The value of R^2 is 0.737, which is good enough. Also ANOVA test gives us the value of F, higher than F value from the F-Distributions for the same confidence value and degrees of freedom. But beside the adequacy of the model, its validity should be checked. There is no assurance that a model, which fits the sample data well will be a successful predictor of y when applied to new data. For this reason, it is important to assess the validity of the regression model in addition to adequacy before using it in practice. In the Regression Results Table 8,9,10 where the coefficients are present, it can be seen, that the coefficient for the CAR variable has negative value. Since all predictors are contributive (have positive correlations with the output variable) they are supposed to have positive coefficients. Because of this, the above model cannot be accepted valid. The reasons for negativity of one of the coefficients may arise from the significantly high correlation between the predictor variables. In this case one of the independent variables. In this case one of the independent variables should be excluded from the equation. The additional analysis was made over the predictors and high relation between INCOME and CAR variables was detected.

After excluding the CAR variable the model was again tested by SPSS and new outputs were obtained.

TABLE 8.
Model 2 Summary

R	R Square	Adjusted R Square	Std.Error of the Estimate
,829	,687	,548	7,1791

TABLE 9.
ANOVA summary for Model 2

Model	Sum of Squares	df	Mean Square	F	Sig.
2	Regression	4	254,870	4,945	,022
	Residual	9	51,539		
	Total	13			

TABLE 10.
Regression Summary for Model 2

Model	Coefficients	B	Std.Error	t	Sig.
2	(Constant)	-26,138	12,125	-2,156	,059
	Income	3,609E-02	,046	,779	,456
	Urbanization	,667	,195	3,428	,008
	Industrialization	1,808E-03	,009	,206	,841
	Education	1,390E-02	,349	,040	,969

From the results of the new regression analysis the adequacy of the model is approved. Both the regression goodness parameters (R^2, Standart Error) and ANOVA tests were satisfactory. After that the obtained equation were tested to give the logical outputs from new data. All provinces were tested and the outputs ranged from 1 to 49.These numbers are within the order of the ones obtained from Migros as input to regression analysis. Now the model can be used to obtain the OFRR for each province. After this, the provinces can be segmented into groups for different investment strategies.

3.3.Model Implementation

All previous steps of the project deal with data definition and model building. The data described the business potential for new or expansion investments in the retailing market. But it is difficult to visualize the real picture using different heterogeneous data. The model built summarizes these data into one common indicator. This OFRR indicator, which is important for determining the investment strategies, is defined in previous titles, pages. Analyzing the market will be done in two dimensions; the total dollar amount of the demand and part of this volume that is organized (OFRR).The first analysis will give a view on whole Turkey. After that, provinces will be analyzed according to geographical regions.

3.3.1. Segmentation of whole Turkey's Market

After the implementation of the model built, the numbers for OFRR for all provinces were obtained. Below the provinces with highest ratio to lowest is presented in Table 11. As it is seen the provinces with the high level of OFRR are the most developed in Turkey, which have the highest income and education levels, are most industrialized and are the largest cities in Turkey. This shows that predicted factors are chosen correctly and they reflect the situation in the market well.

TABLE 11. Provinces with Highest and Lowest OFRR

Order	Province	OFRR(%)		Province	OFRR(%)
1	İSTANBUL	49	72	KARS	9
2	ANKARA	45	73	NİĞDE	8
3	İZMİR	41	74	YOZGAT	8
4	ESKİŞEHİR	38	75	SİNOP	8
5	BURSA	36	76	AĞRI	8
6	ADANA	35	77	GÜMÜŞHANE	6
7	KIRIKKALE	33	78	BARTIN	1
8	GAZİANTEP	33	79	ARDAHAN	1
9	YALOVA	32	80	MUŞ	1

3.3.2. Organized Food Retailing Volume (OFRV) of Turkey

As mentioned in the earlier stages of the report, the GDP of each city is known. The disposable income rate of each province is also determined by a predefined rule, which is mentioned before. From this information, the total disposable income of each city is calculated, by multiplying the GDP and rate. This amount is 157.387.000.000$ for Turkey. As a result of a survey performed in the year 1994,it is found that about 15% of the total disposable income is spent on food. On the other hand, it is learned from Migros A.S. that annually 20.000.000.000 is divided by 157.387.000.000, the ratio of 12,7% is obtained. In this way, this ratio is verified. As the next step, the disposable income of each city is multiplied by 12,7%.So,the amount of money that is spent on food in each province is found. Finally, the amount of money spent on food is multiplied by the OFRR of each province. In this way Organized Food Retailing Volume (OFRV) is found for each province in Turkey. Below is given the overall view of Turkey from our analysis' point of view:

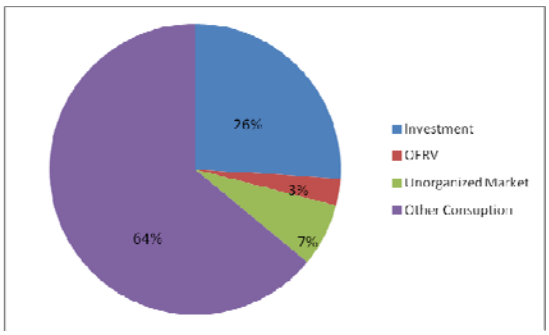

FIGURE 4.
OFRV Part in the Total GNP in Turkey

The list containing the *Organized Food Retailing Volume*(OFRV) of each city is in the Figure 4. Below the provinces with highest and lowest OFRV are presented in the Table 12. As it is seen the provinces with the high level of OFRR are the most developed in Turkey,which have the highest income and education levels,are most industrialized and are the largest cities in Turkey.

TABLE 12. Provinces with Highest and Lowest OFRV

Order	Province	OFRV($)	Order	Province	OFRV($)
1	İSTANBUL	2.010.017.381	72	SİNOP	4.218.278
2	ANKARA	668.814.176	73	KARS	3.960.581
3	İZMİR	534.355.014	74	AĞRI	3.749.233
4	BURSA	268.797.084	75	IĞDIR	2.028.527
5	ADANA	224.306.019	76	GÜMÜŞHANE	1.713.324
6	KOCAELİ	198.277.388	77	BAYBURT	1.288.611
7	İÇEL	146.931.486	78	MUŞ	373.288
8	ANTALYA	121.967.052	79	BARTIN	285.466
9	MANİSA	109.014.572	80	ARDAHAN	171.829

As it seen from the table there is very large difference in the numbers for different provinces.Even between first city,Istanbul,which contributes more than 30% to the total,and the second there is almost 300% difference.This shows that incomes in Turkey are distributed not uniformly.The 16 cities' contribution to market is 80% of total amount spend for food.This gives a sign that during decision-making process first attention should be paid to these cities.

3.3.3. Boston Consulting Group approach

The Boston Consulting Group (BCG), a leading management consulting firm, developed and popularized the growth-share matrix shown in Figure 5.The eight circles represent the current sizes and positions of eight business making up a hypothetical company. The dollar-volume size of each business is proportional to the circle's area: thus, the two largest businesses are 5 and 6. The location of each business indicates its market growth rate and relative market share. Specifically, the market growth rate on the vertical axis indicates the annual growth rate of the market in which the business operates; in the figure, it ranges from 0% to 20%, although a larger range could be shown. A market growth rate above 10% is considered high. The horizontal axis, relative market share, refers to the strategic business unit's (SBU) market share relative to that of the largest competitor. A relative market share of 0.1 means that the company's sales volume is only10% of the leader's sales volume; and 10 means that the company's SBU is leader and has ten times the sales of next-strongest company in that market. Relative market share is divided into high and low share, using 1.0 as the dividing line. Relative market share is drawn in log scale, so that equal distances represent the same percentage increase.

The growth share matrix is divided into four cells, each indicating a different type of business:

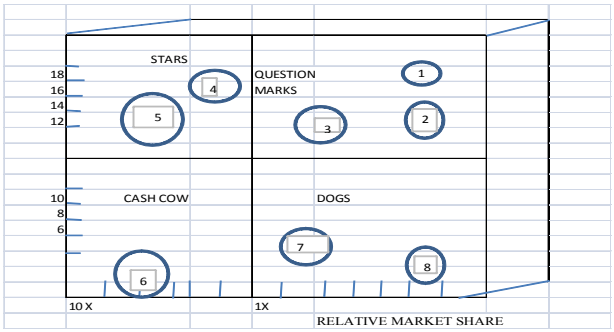

FIGURE 5.
Boston Consulting Group's Growth-Share Matrix

Question Marks: Question Marks are company businesses that operate in high growth markets but have low relative market shares. A question mark requires a lot of cash, since the company has to add plants,equipment,and personnel to keep up with the fast-growing market, and additionally, it wants to

overtake the leader. The term question mark is well chosen because the company has to think hard about whether to keep pouring money into this business.

- **Stars:** If the question-mark business is successful, it becomes a star. A star is the market leader in a high-growth market. Starts are usually profitable and become the company's future cash cows.
- **Cash cows:** When a market's annual growth rate falls to less than 10%,the star becomes a cash cow if it still has the largest relative market share. A cash cow produces a lot of cash for the company. The company does not have to finance a lot of capacity expansion because the market's growth rate has slowed down. And since the business is the market leader, it enjoys economies of scale and higher profit margins.
- **Dogs:** Dogs describe company businesses that have weak market shares in low growth markets. They typically generate low profits or losses, although they may throw off some cash. Dog business often consume more management time than they are worth and need to be phased down or out.

Having plotted its various businesses in the growth-share matrix, the company then determines whether its business portfolio is healthy. An unbalanced portfolio would have too many dogs or question Marks and/or too few starts and cash cows.

The company's next task is to determine what objective,strategy,and budget to assign to each SBU.Four alternative objectives can be pursued:

- **Build:**Here the objective is to increase the SBU's market share,even foregoing short term earnings to achieve this objective. ''Building'' is appropriate for question marks whose shares have to grow if they are to become stars.
- **Hold:**Here the objective is to preserve the SBU's market share.This objective is appropriate for strong cash cows if they are to continue to yield a large positive cash flow.
- **Harvest:**Here the objective is to increase the SBU's shot term cash flow regardless the long term effect.This strategy is appropriate for weak cash cows whose future is dim and from whom more cash flow is needed.Harvesting can also be used with question marks and dogs.
- **Divest:**Here the objective is to sell or liquidate the business because resources can be better used elsewhere.That is appropriate for dogs and question marks that are acting as a drag on the company's profits.

As time passes, SBUs(Strategic Business Unit) change their position in the growth-share matrix.Successful SBUs have a life cycle.They start as question marks,become stars,the cash cows,and finally dogs toward the end of their life cycle.For this reason, companies should examine not only the current positions of their businesses in the growth-share matrix (as in a snapshot) but also their moving positions(as in a motion picture).They use it to try to assess each business and assign the most reasonable objective. Although the portfolio in Figure **5** is basically healthy, wrong objectives or strategies could be assigned. The worst mistake would be to require all the SBUs to aim for the same growth rate or return level; the very point of SBU analysis is the each business has a different potential and requires its own objective. Additional mistakes would include :

1.Leaving cash-cow business with too little in retained funds, in which case they grow weak; or leaving them with too much in retained funds, in which case the company fails to invest enough in new growth businesses.

2.Making major investments in dogs hoping to turn them around but failing each time.

3.Maintaining too many question marks and under investing in each; question marks should either receive enough support to achieve segment dominance or be dropped.

3.3.4. Applying the BCG Approach to Volume-Share Dimensions

In order to segment the provinces both by volume and market share the BCG approach, described above was used. The axes were changed as OFRV and Formby changing the definitions of the axes the definitions of regions change. The first step is to define these regions. *Stars:* A region where the organized food retailing ratio is low. This means that there is a market niche, but people do not have habit of shopping in markets. Cash cows: In this region we have provinces that have both OFRR and OFRV are low. So these regions do not show much perspective, but have the advantage of being free of competitors. *Dogs*: In this region fall provinces with relatively low-income rate but already high OFRR.This means that it is meaningless to invest in these cities where the no much money,and already existing competitors. *Question Marks:* Here both income rate and organized market share are high. These markets are of high dollar volume but also are in very high competition. If Investments are to be done here, should be high, importance should be paid on quality. New investor should create something different from existing competitors. While distributing the cities of Turkey into this matrix some assumptions about the scales were decreased. For example the highest OFRV is in Istanbul, which is more than 2 billion. But the average is 75 millions. Because of this the scale was decreased to highest level 200 millions. The same procedure was made to OFRR scale. In the Table 13 provinces of three regions are listed. All other provinces are in the group Cash Cows. As it was expected, most of the cities fell in this group. This comes from the fact, that economy in Turkey is placed not uniformly. Almost all industry is situated in the west part.

TABLE 13.
Provinces falling into DOGS region of BCG

Dogs	OFRR	OFRV($)
ESKİŞEHİR	38%	97.761.033
KIRIKKALE	33%	32.989.842
GAZİANTEP	33%	92.119.634
YALOVA	32%	23.593.065
KARABÜK	29%	18.464.697
KAYSERİ	29%	76.084.192
TEKİRDAĞ	28%	61.082.425
BİLECİK	26%	20.673.831
ELAZIĞ	25%	34.206.960

TABLE 13.
Provinces falling into QUESTION MARKS region of BCG

Question Marks	OFRR	OFRV($)
İSTANBUL	49%	2.010.017.381
ANKARA	45%	668.814.177
İZMİR	41%	534.355.014
BURSA	36%	268.797.085
ADANA	35%	224.306.019
KOCAELİ	28%	198.277.389
İÇEL	27%	146.931.486

TABLE 14.
Provinces Falling into STARS Region of BCG

Stars	OFRR	OFRV($)
KONYA	21%	107.768.155
MANİSA	23%	109.014.573
ANTALYA	22%	121.967.052

The model detected three provinces that fall into Stars category. They have relatively high-income value and low organized market share. These regions should be analyzed more precise because they are first candidates for future investments.

3.3.5. Apply the BCG Approach by Geographical Regions

After the analysing the market in total it is meaningful to analyse provinces by geographical regions of Turkey.This will give the relative potentials toward investment strategies within the region. A province that may be not important when is viewed from all Turkey may be the first in the region. This analysis is important especially for local investors that are not national chains. In the report one region (Black Sea Region) is present and other three are present in the Table 14.

TABLE 14.
BCG Matrix for Black Sea Region

Cash Cows		$
BARTIN	1	285.467
GÜMÜŞHANE	6	1.713.325
SİNOP	8	4.218.278
BAYBURT	9	1.288.611
ARTVİN	12	6.991.458
KASTAMONU	11	11.949.020
ORDU	10	15.777.113
ZONGULDAK	10	22.191.991
TOKAT	13	23.542.185

ÇORUM	15	22.904.039
GİRESUN	17	21.908.570
AMASYA	17	15.707.671
Dogs		
RİZE	18	15.409.385
KARABÜK	29	18.464.697
Question Marks		
BOLU	17	36.818.482
Stars		
TRABZON	14	30.015.739
SAMSUN	16	46.538.296

As it is seen from the Table 14 , we have two cities Star category in Black Sea region. After more detailed analysis of markets in these provinces the decisions about investments can be made.

3.3.6. Relative Growth

In the BCG matrices that we analysed until now, we had only two axes. One of them represented the Organized Food Retailing Volume. But in this analysis, another dimension could be considered. This third dimension shows the Relative Growth Potential of the provinces. This third dimension can be represented by a third axis in the BCG matrix. By this way we can make a more detailed analysis and give more accurate decisions. The third dimension of the matrix can be shown as circles around the points that represent the provinces in the BCG matrix. The larger the area of the circle the highest is the growth potential of the city. An example three axis BCG chart is given below:

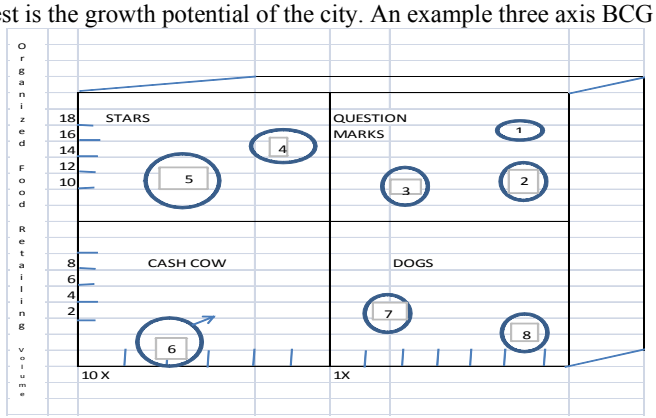

FIGURE 6.
BCG Growth-Share Matrix

It is really very difficult to determine the growth potential of a city because it is related to the political, cultural and administrative factors. It depends on the current and future investments made in the city. For example, because of the tourism investments made in Antalya, this city can be considered to have a high growth potential. As a result we showed Antalya with a big circle in the matrix. This advanced analysis is not in the scope of our Project.However; we mentioned the existence of such an analysis and wanted to guide the people who would extend the scope of our project.

4. Conclusions and Further Research Opportunities

Information about the market is very important during the decision making process about the investment strategies in the retailing market. Especially it is important in developing countries, where the market is not filled and still carries opportunities for new investors. Organized retailing comes in Turkey with Migros in 1950's and is still developing. During last decade investments were made in almost all large cities, where it was expected to be feasible. Today they come to the point, when future investments cannot be made without precise market researches. The important is to find the niches, where these investment can be made and bring future profits. The first step of this study was studying the literature about the situation with retailing in Turkey. The ideas about the market segmentation approach, the market research process were caught in this step. This was necessary, because we did not know much about retailing.

In the next step the data collection and analysis was performed. The main sources for data was State Institute of Statistics (SIS) and Foreign Investments Coordination Department of Migros. Here problems aroused with availability of data. Unfortunately in Turkey there is no habit to keep statistics. So in many cases data found was either poor or in valid. After collection and analyzing data a model that summarizes the data was build. The most

important part of this step was validation the model. The first model built was unsatisfactory due to poorness and in validness of data. After necessary revising the input parameters the new model was built. It was validated by obtained results. In the implementation step the summary for all provinces were obtained. The potentials of provinces toward investments in retailing market were analyzed in two dimensions. One showed the economical/$ volume situation in provinces. The second showed the part of this potential already occupied by previous investors. The BCG matrix approach was used to segment the provinces according to both parameters.

The next step was analyzing the investment opportunities in provinces by adding the third dimension; the relative development /growth of the provinces. The model designed gives the insight about the current market situation, because it uses the today's values of predictors' parameters. But situation in some provinces may change relatively to others in future. In order to reflect these possible changes the market should be analyzed in all three dimensions. The model constructed has limitations. The first is directly related with the parameters/coefficients of the model. This problem comes due to limitation and quality of data used as input. If more proper and complete data were available, the model would give more confident results. The second comes from the input factor or predictors. The factors used in this study were selected such that they reflect the normal economic conditions. But of course there are local factors, affecting the value of OFRR.But they could not be included in model due to large variety and locality. The model is the first step of the economic market analysis. The second step should be more precise and detail individual analysis of most perspective provinces, selected in the first step. The following studies should revise the input data used in this study. Possible by the time better data will be available. Also input factors should be revised, because some of them may change and new ones can enter the model. Also the detailed analysis of each province can be performed.

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