

## **DAVID'S STRATEGY FORMULATION FRAMEWORK IN ACTION: THE EXAMPLE OF TURKISH AIRLINES ON DOMESTIC AIR TRANSPORTATION**

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### **ABSTRACT**

The paper aims to implement a modern strategy formulation framework formed by Fred David in the strategic management process and to reveal some limitations emanating from its use that constitutes agenda for future research. The paper initially provides a theoretical backing for the framework that guides the decision-makers/strategists to evaluate the companies' internal and external dimensions and to reach alternative strategies by using different tools/techniques. Then, it designs the case study of the Turkish Airlines on Domestic Air Transportation, applies David's strategy formulation framework to its operations, recommends most appropriate strategy(s) for the company, and lastly points up the limitations of the framework on the basis of this observation.

*Keywords: BCG Matrix, Strategy, Strategy Formulation, Strategic Management, SWOT Matrix*

### *DAVID'İN STRATEJİ BELİRLEME MODELİNİN UYGULAMASI: TÜRK HAVA YOLLARI İÇ HATLAR HAVA TAŞIMACILIĞI ÖRNEĞİ*

### **ÖZET**

Makale Fred David tarafından geliştirilen stratejik yönetim süreci içindeki modern strateji belirleme modelini uygulamayı ve bu uygulamadan gelecek araştırmaların gündemini oluşturacak konuları belirleyen bazı kısıtları ortaya çıkarmayı hedeflemektedir. Öncelikle makale firmaların içsel ve dışsal boyutlarını değerlendirme ve farklı metot ve teknikler kullanarak alternatif stratejilere ulaşma konusunda kuramsal bir zemin sağlayarak karar-verici/stratejistlere rehberlik eder. Makale sonra Türk Hava Yolları İç Hat Hava Taşımacılığı vaka çalışmasını oluşturur, David'in strateji belirleme modelini bu şirketin faaliyetlerine uygular, şirket için en uygun strateji (leri) tavsiye eder ve son olarak bu gözlemin ışığında modelinin kısıtlarını ortaya çıkarır.

*Anahtar Kelimeler: BCG Matrisi, Strateji, Strateji Belirleme, Stratejik Yönetim, SWOT Matrisi*

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## 1. INTRODUCTION

The following study documents the application of Fred David’s strategy formulation framework to the Turkish Airlines on Domestic Air Transportation and some of its limitations that come from observation. The paper includes four parts. The first part, called research model and methodology, analyses Fred David’s strategy formulation framework. It helps analyst in understanding the methodology and techniques to determine most appropriate alternative strategy(s) for the organisation. The second part, called background information about Turkish Airlines on Domestic Air Transportation, describes the Turkish Airline carrier’s domestic operations. It helps practitioner in addressing specific issues for analysing the company. The third part, called applying the strategy formulation framework to the Turkish Airlines on Domestic Air Transportation, uses the model and methodology of strategy formulation framework. It helps problem-solver in highlighting appropriate strategies for the Turkish Airlines. The fourth part, called the limitations of the strategy formulation framework, uncovers the weaknesses of the framework in this instance and shapes the future research.

## 2. RESEARCH MODEL AND METHODOLOGY

This part deals with David’s strategy formulation framework that helps strategists generate feasible alternatives, evaluate those alternatives, and choose a specific course of action. Techniques of strategy formulation can be integrated into a decision making framework. Strategies can be identified, evaluated and selected by this framework that includes three stages: (1) input stage, (2) matching stage, and (3) decision stage (Figure 1) (David, 2007).

<b><u>STAGE 1: THE INPUT STAGE</u></b>				
External Factor Evaluation (EFE) Matrix		Competitive Profile Matrix		Internal Factor Evaluation (IFE) Matrix
<b><u>STAGE 2: THE MATCHING STAGE</u></b>				
Strengths- Weaknesses - Opportunities- Threats (SWOT) Matrix	Strategic Position and Action Evaluation (SPACE) Matrix	Boston Consulting Group (BCG) Matrix	Internal- External (IE) Matrix	Grand Strategy Matrix
<b><u>STAGE 3: THE DECISION STAGE</u></b>				
Quantitative Strategic Planning Matrix (QSPM)				

**Figure 1. Strategy-Formulation Framework**

The weights and ratings in appropriate models that are used in each stage of David’s strategy formulation framework have been respectively determined with the strategists together in the Strategic Planning and Investment Department of Turkish Airlines. The strategists and practitioner set up a team that met formally 2 hours

each week for about six months. In these informative meetings the members of the team shared pertinent information, dealt with companywide issues, and agreed upon the weights and ratings of organisational concerns.

### **2.1. Stage 1: The Input Stage**

Stage 1 summarises basic input information needed to formulate strategies that includes External Factor Evaluation (EFE) Matrix, Internal Factor Evaluation (IFE) Matrix, and Competitive Profile Matrix (CPM).

External Factor Evaluation (EFE) Matrix summarises and evaluates economic, social, cultural, demographic, environmental, political, governmental, legal, technological, and competitive information (David, 2007). Internal Factor Evaluation Matrix (IFE) summarises and evaluates the major strengths and weaknesses in the functional areas of a business. Ratings and Weighted Scores are two important variables in IFE and EFE matrices. Firms rate each internal and external factor 1-to-4 in EFE and IFE Tables to indicate how effectively the firm's current strategies respond to the factor. Firms assign a weight from 0.0 to 1.0 to each internal and external factor in EFE and IFE Tables. Weights indicate the relative importance of that factor to being successful in the firm's industry. Competitive Profile Matrix (CPM) identifies a firm's major competitors and their particular strengths and weaknesses in relation to a sample firm's strategic position (David, 2007). Different from EFE, critical success factors in a CPM are broader; they do not include specific or factual data and even may focus on internal issues. The critical success factors in a CPM also are not grouped into opportunities and threats as they are in an EFE. Ratings and total weighted scores can be compared with the sample firm in CPM. This provides internal strategic information which is important for the firm.

### **2.2. Stage 2: The Matching Stage**

Stage 2 focuses on generating feasible alternative strategies by aligning key external and internal factors. Stage 2 techniques include Strengths-Weaknesses-Opportunities-Threats (SWOT) Matrix, Strategic Position and Action Evaluation (SPACE) Matrix, Boston Consulting Group (BCG) Matrix, Internal-External (IE) Matrix, and Grand Strategy Matrix.

#### **2.2.1. Strengths-Weaknesses-Opportunities-Threats (SWOT) Matrix**

SWOT analysis was popularised by Andrews (1965) who combined the ideas of Peter Drucker, Philip Selznick, and Alfred Chandler. Drucker (1946) searched for the source of the company's success. He found out that successful organisations should have external purposes and objectives that were directed to determining

customer needs and satisfying them. Selznick (1957), on the other hand, proposed two terms-“distinctive competences” and “environmental uncertainty”. The former dealt with unique capabilities and values possessed by particular organisations that put emphasis on giving them a “sustained competitive advantage”. The latter pointed up that in early times firms did not necessarily respond rationally to their environments, but rather they internalized cultural norms and values of the wider system or society in which they operate. Lastly, Chandler (1962) analysed four multinational companies’ growth processes and their injection into their managerial structures. He implied the significance of strategic thought and comprehension in organisations. In light of these views, Andrews (1965) formulated SWOT analysis that proposed that a firm could generate its strategy after cautiously evaluating the components of its internal and external environments. This allowed companies to use long range planning approach based on qualitative analysis rather than quantitative forecast (Learned, et al., 1965; Barca, 2005). SWOT matrix, in theory, presents a mechanism for facilitating the linkage among company strengths and weaknesses, and threats and opportunities in the marketplace. It also provides a framework for identifying and formulating strategies. SWOT matrix helps managers develop four types of strategies: SO (strengths-opportunities) strategies, WO (weaknesses-opportunities) strategies, ST (strengths-threats) strategies, and WT (weaknesses-threats) strategies. *SO strategies* use a firm’s internal strengths to take advantage of external opportunities. *WO strategies* improve internal weaknesses by taking advantage of external opportunities. *ST strategies* use a firm’s strengths to avoid or reduce the impact of external threats. *WT strategies* are defensive tactics directed at reducing internal weaknesses and avoiding environmental threats (Wehrich, 1982).

### **2.2.2. Strategic Position and Action Evaluation (SPACE) Matrix**

Strategic Position and Action Evaluation (SPACE) Matrix analysis is based on two internal dimensions and two external dimensions (Rowe et al., 1994). The internal dimensions; financial strength (FS) and competitive advantage (CA), are the major determinants of the organisation’s strategic position, whereas the external dimensions of environmental stability (ES) and industry strength (IS) characterise the strategic position of the entire industry (Radder and Louw, 1998). FS and ES are located on y-axis and CA and IS are located on x-axis of the SPACE matrix.

Factors influencing financial strength (FS) include return on investment, leverage, liquidity, required/available capital, ease of exit from the market and the risk involved in business. Critical elements of competitive advantage (CA) comprises market share, product quality, product life cycles, product replacement cycles, customer loyalty, competition’s capacity utilisation, technological know-how, and vertical integration. The key dimensions which determine environmental stability (ES) include technological change, rate of inflation, demand variability, price range of competing products, barriers to entry into the market, competitive pressure, and price elasticity of demand. Factors determining industry strength (IS) include growth

and profit potential, financial stability, technological know-how, resource utilisation, capital intensity, ease of entry into the market and productivity or capacity utilisation (Radder and Louw, 1998).

In developing a SPACE matrix the analyst is required to pursue the following steps: 1) selecting a set of variables to define internal and external strategic position; 2) assigning a value ranging from +1 (worst) to +6 (best) variables making up FS and IS and value ranging from -1 (best) to -6 (worst) to variables making up ES and CA; 3) calculating the average score for FS, CA, IS, and ES; 4) plotting the average scores for each dimension on the suitable axis on the matrix; 5) adding two scores on the x-axis and finding the resultant point on X and adding two scores on the y-axis and finding the resultant point on Y, and then plotting the intersection point; and 6) drawing a directional vector from the origin of the SPACE matrix through the intersection point.

On the SPACE matrix there are four types of strategies: aggressive, competitive, conservative and defensive. *Aggressive strategy* is typical in an attractive industry with stable economic conditions. Financial strength usually enables an organisation with this strategy to protect its competitive advantage. Such an organisation may also take full advantage of opportunities in its own or related industries, look for acquisition candidates, increase market share and/or allocate resources to products that have a definite competitive edge. Entry of new competitors is, however, a crucial factor. Aggressive strategies include market penetration, market development, product development, backward integration, forward integration, horizontal integration, conglomerate diversification, concentric diversification, and horizontal diversification. *Competitive strategy* is characteristic of an attractive industry in a relatively unstable environment. The organisation with such a strategy is at a competitive advantage and could acquire financial resources to increase marketing thrust, add to the sales force, and extend the product line. Such an organisation could also invest in productivity, cut costs, or merge with a cash-rich organisation. Financial strength is, however, of critical importance. Competitive strategies include backward, forward, and horizontal integration; market penetration; market development; product development; and joint ventures. *Conservative strategy* is distinctive of a low growth but stable market. The focus is on financial stability, while product competitiveness is the critical factor. In this situation organisations could reduce their product lines, cut costs, make cash flow improvements, protect competitive products, focus on new product developments, and try to enter into more attractive markets. Conservative strategies most often include market penetration, market development, product development, and concentric diversification. *Defensive strategy* is an unattractive industry where competitiveness is the key factor. The organisation finding itself in this dimension often lacks a competitive product and financial strength. It could prepare for retreat from the market, discontinue marginally profitable products, reduce costs and capacity, and defer or minimize investments (Radder and Louw, 1998). Defensive strategies include retrenchment, divestiture, liquidation, and concentric diversification.

### 2.2.3. Boston Consulting Group (BCG) Matrix

Boston Consulting Group (BCG) Matrix created by Bruce Henderson for the Boston Consulting Group in 1964 helps corporations with analysing their business units or product lines. This facilitates the company's resource allocation. The advent of BCG matrix is based on the "experience curve" developed by Henderson. Experience curve assumes that when you double your production experience, the production costs will display a continuous decrease between 20 and 30 percent. In other words, whoever first snatches the market share one will have more experience and consequently lower costs. This will lead to have a highest profit margin, cash flow, and competitive advantage for the firm. Within a couple of years this thinking changed to growth-share matrix—BCG matrix. It focused on strategic thinking rather than long range planning and provided insights to the company managers about organisational learning, investment opportunities and cash flows (Barca, 2005; Pettigrew, 1992; Whittington, 1993).

In BCG Matrix, the first step is to identify the various "Strategic Business Units" (SBU's) in a company portfolio. A SBU is a unit of the company that has a separate mission and objectives and that can be planned independently from the other businesses. A SBU can be a small company, a company division, a product line or even individual brands. Using BCG matrix a company classifies all its SBU's according to two dimensions: relative market share and industry growth rate. Relative market share position is defined as the ratio of a division's own market share in a particular industry to the market share held by the largest rival firm in that industry. Relative market share position is given on the x-axis of the BCG Matrix. The midpoint on the x-axis is usually set at 0.50, corresponding to a division that has half the market share of the leading firm in the industry. The y-axis represents the industry growth rate in sales, measured in percentage terms. The growth rate percentages on the y-axis could range from -20 to +20 percent, with 0.0 being the midpoint. These numerical ranges on the x- and y- axes are often used, but other numerical values could be established as deemed appropriate for particular organisations (David, 2007).

Each circle represents a separate division. The size of the circle corresponds to the proportion of corporate revenue generated by that business unit, and the pie slice indicates the proportion of corporate profits generated by that division. Divisions located in Quadrant I of the BCG Matrix are called Question Marks, those located in Quadrant II are called Stars, those located in Quadrant III are called Cash Cows, and those divisions located in Quadrant IV are called Dogs. The four Quadrants indicate different types of businesses: *Question Marks* operate in high-growth markets but have low relative market shares. Most of the SBUs start off as question marks as the company tries to enter a high-growth market in which there is an entrenched market leader. They require a lot of cash in plants, equipment, and personnel to keep with the fast growing market to overtake the leader. The company has to think hard about whether to keep pouring money into this business since the risk is high. These businesses should pursue intensive strategy (market penetration, market

development, or product development). *Stars* are SBUs with high market share and strong competitive position. They generate large amounts of cash but require a significant inflow of cash resources to fight with competitors. The risk involved in investment in this cell is medium to low (Singh, 2004). Forward, backward, and horizontal integration; market penetration; market development; and product development are appropriate strategies for these divisions to consider (David, 2007).

*Cash Cows* with the largest relative market share and low annual market growth rate (below ten percent) produces maximum positive cash with economies of scale and higher profit margins for the company. Capacity expansion is not financed in this cell as the market's growth rate has slowed down. Cash cows are used to pay the bills and support the SBUs in other quadrants (Singh, 2004). Product development or concentric diversification strategies should be used for strong Cash Cows. However, as a Cash Cow becomes weak, retrenchment or divestiture can become more appropriate (David, 2007). *Dogs* are SBUs with weak market shares in low growth markets. These may generate some cash but generally give low profits or losses. The company may hold a dog expecting a turnaround in the market or in the SBU (to become a market leader again) or for sentimental reasons but normally dog SBUs are closed (Singh, 2004). Because of their weak internal and external position, these businesses are often liquidated, divested, or trimmed down through retrenchment (David, 2007).

#### 2.2.4. Internal-External (IE) Matrix

Internal-External (IE) Matrix positions an organisation's various divisions in a nine cell display through plotting them in a schematic diagram. The size of each circle represents the percentage sales contribution of each division, and pie slices reveal the percentage profit contribution of each division in IE Matrix (David, 2007).

IE Matrix is based on two key dimensions: IFE total weighted scores on the x-axis and EFE total weighted scores on the y-axis. On the x-axis of the IE Matrix, an IFE total weighted score of 1.0 to 1.99 represents a weak internal position; a score of 2.0 to 2.99 is considered average; and a score of 3.0 to 4.0 is strong. Similarly, on the y-axis, an EFE total weighted score of 1.0 to 1.99 is considered low; a score of 2.0 to 2.99 is medium; and a score of 3.0 to 4.0 is high. The IE Matrix can be divided into three major regions that have different strategy implications.

First region gives the prescription of *grow and build* for divisions that fall into cells I, II, or IV. Intensive (market penetration, market development, and product development) or integrative (backward integration, forward integration, and horizontal integration) strategies can be most appropriate for these divisions. Second region gives the prescription of *hold and maintain* for divisions that fall into cells III, V, or VII. Market penetration and product development are two commonly employed strategies for these types of divisions. Third region gives the prescription of *harvest or divest* for divisions that fall into cells VI, VIII, or IX. Liquidation,

retrenchment and divestiture are appropriate strategies for these divisions. Successful organisations are able to achieve a portfolio of businesses positioned in or around cell I in the IE Matrix (David, 2007).

### **2.2.5. Grand Strategy Matrix**

Grand Strategy Matrix is based on two evaluative dimensions: competitive position and market growth. Appropriate strategies for an organisation to consider are listed in sequential order of attractiveness in each quadrant of the matrix (David, 2007).

Firms located in *Quadrant I* of the Grand Strategy Matrix have a strong competitive position in a rapid growth industry. These firms should concentrate continuously on market penetration, market development, and product development strategies. When a Quadrant I organisation has excessive resources, then backward, forward, or horizontal integration may be effective strategies. When a Quadrant I firm is too heavily committed to a single product, then concentric diversification may reduce the risks associated with a narrow product line.

Firms positioned in *Quadrant II* have a weak competitive position in a rapid growth industry and they need to evaluate their present position to the marketplace. Although their industry is growing they are unable to compete effectively and need to determine the firm's ineffectiveness and the way to improve its competitiveness.

*Quadrant II* firms should firstly apply intensive strategies (market penetration, market development, product development). However, if the firm is lacking a distinctive competence or competitive advantage, then horizontal integration is often a desirable alternative. As a last resort, divestiture or liquidation should be considered.

*Quadrant III* organisations have a weak competitive position in slow-growth industries. These firms must quickly make some drastic changes to avoid further demise and possible liquidation. Extensive cost and retrenchment should be pursued first. Other options for Quadrant III businesses are divestiture or liquidation.

Finally, *Quadrant IV* businesses have a strong competitive position but are in a slow growth industry. These firms have strength to launch diversified programs into more promising growth areas. They can pursue concentric, horizontal, or conglomerate diversification successfully.

### **2.3. Stage 3: The Decision Stage**

Stage 3 involves a single technique, the Quantitative Strategic Planning Matrix (QSPM). A QSPM uses input information from Stage 1 to objectively evaluate feasible alternative strategies identified in Stage 2. A QSPM reveals the relative

attractiveness of alternative strategies and thus provides objective basis for selecting specific strategies. This technique allows top managers to assess alternative strategies objectively based on a firm's internal strengths/weaknesses and external opportunities/threats (David, 1986).

In QSPM, left column consists of key external and internal factors from Stage 1, and the top row includes feasible alternative strategies from Stage 2. Specifically, the left column of a QSPM includes information obtained directly from the EFE Matrix and IFE Matrix. In a column adjacent to the critical success factors, the respective weights received by each factor in the EFE Matrix and the IFE Matrix are recorded. The top row of a QSPM includes alternative strategies derived from the SWOT Matrix, SPACE Matrix, BCG Matrix, IE Matrix, and Grand Strategy Matrix. These matching tools usually generate similar feasible alternatives (David, 2007).

QSPM determines best strategy to the firms by calculating weights, attractiveness scores, total attractiveness scores and sum total attractiveness scores of the alternative strategies in the QSPM table. Weights of the internal and external factors are directly transferred from IFE and EFE tables in Stage 2. Attractiveness Scores (AS) are defined as numerical values - 1 (not attractive), 2 (somewhat attractive), 3 (reasonably attractive), and 4 (highly attractive) - that indicate the relative attractiveness of each strategy in a given set of alternatives. Total Attractiveness Scores are defined as the product of multiplying the weights by the Attractiveness Scores in each row. Total Attractiveness Scores indicate the relative attractiveness of each alternative strategy, considering only the impact of the adjacent external or internal critical success factor. The higher the Total Attractiveness Score, the more attractive the strategic alternative is. Total Attractiveness Score is computed by adding Total Attractiveness Scores in each strategy column of the QSPM. The Sum Total Attractiveness Scores reveal most attractive strategy in each set of alternatives. Higher scores indicate more attractive strategies (David, 2007).

### **3. BACKGROUND INFORMATION ABOUT TURKISH AIRLINES ON DOMESTIC AIR TRANSPORTATION**

The case study deals with the chief characteristics of the Turkish Airlines on domestic air transportation operations and the nature of the Turkish Aviation Industry.

#### **3.1. Chief Characteristics of Turkish Airlines on Domestic Air Transportation Operations**

This section succinctly describes the Turkish Airlines passenger function, the Turkish Cargo function, its maintenance centre, its e-commerce operations, and its financial conditions in 2005 and 2006.

Turkish Airlines on Domestic Air Transportation's main bases are at Atatürk International Airport (IST), Istanbul, with secondary hubs at Esenboga International Airport (ESB), Ankara, and at Sabiha Gokcen International Airport (SAW), Istanbul. It operates a network of scheduled services to 29 domestic cities. Turkish Airlines (TA) carried 8.857 million passengers with total revenues of US\$300 million on domestic air transportation in 2006.

TA offers a variety of services designed to meet customers' shipping needs and to fulfil their individual transport requirements. TA has one cargo plane in its fleet. It transports every type of cargo ranging from small packages to livestock, perishable foods, textile products, flowers, leather and spare parts. Currently on domestic flights the Turkish Cargo service is provided with passenger planes to 28 destinations, 5 of which have Turkish Cargo organisations locally. In the period of 2006, TA transported 33.380 tones of cargo on domestic air transportation, which was 14 percent higher than 2005, additionally; the revenue on domestic operations gathered from cargo increased 14 percent.

TA on Domestic Air Transportation has a maintenance centre at its hub Atatürk International Airport, (IST) in Istanbul. The Turkish Airlines Maintenance Centre, called TA Technic, is responsible for the maintenance, repair, and overhaul of TA's all aircrafts, engines, and components. This centre also serves to other Airline companies such as Onur, Pegasus and Atlasjet.

In terms of e-commerce activities TA on Domestic Air Transportation's web site, static pages, where provision of information is crucial, are continuously updated. All information on departures-arrivals, baggage tracking, cargo tracking, Miles&Smiles transactions and scheduled queries are within the scope of the on-line services available.

In terms of financial picture of the whole company, TA's total assets in 2006 increased to 4.599 USD and recorded an increase of 20.6 percent compared to 2005 (Table 1). In 2006, shareholder's equity of the firm increased to 1.609 million USD with a 28.9 percent increase with respect to 2005 (Table 1).

**Table 1. Turkish Airlines Balance Sheets as at 31 December 2006 and 2005**

(All amounts expressed in New Turkish Lira (YTL) unless otherwise stated.)

ASSETS	Audited 31 December 2005	Audited 31 December 2006
<b>Current Assets</b>	<b>825.922.684</b>	<b>857.257.447</b>
Cash and Cash Equivalents	482.910.555	365.057.959
Marketable Securities (net)	-	-
Accounts Receivable (net)	191.596.806	273.400.852
Financial Lease Receivables (net)	-	-
Due from Related Parties (net)	970.701	21.318.613
Other Receivables (net)	6.567.690	8.571.133
Biological Assets (net)	-	-
Inventories (net)	84.255.279	135.643.567
Receivables from Construction Contracts in Progress (net)	-	-
Deferred Tax Assets	-	-
Other Current Assets	59.621.653	53.265.323
<b>Non-Current Assets</b>	<b>2.987.438.785</b>	<b>3.741.767.286</b>
Accounts Receivable (net)	-	-
Financial Lease Receivables (net)	-	-
Due from Related Parties (net)	-	14.812.000
Other Receivables (net)	1.901.488	1.971.731
Financial Assets (net)	37.406.378	29.327.501
Positive/Negative Goodwill (net)	-	-
Investment Property	-	-
Tangible Fixed Assets (net)	2.631.113.979	3.503.076.666
Intangible Fixed Assets (net)	6.154.133	7.508.620
Deferred Tax Assets	298.568.802	158.971.576
Other Non-Current Assets	12.294.005	26.099.192
<b>Total Assets</b>	<b>3.813.361.469</b>	<b>4.599.024.733</b>
<b>LIABILITIES</b>		
<b>Short-Term Liabilities</b>	<b>1.198.903.059</b>	<b>1.073.727.696</b>
Bank Borrowings (net)	362.903.225	-
Short-Term Portion of Long-Term Bank Borrowings (net)	-	4.481.158
Financial Lease Obligations (net)	179.092.821	218.720.799
Other Financial Liabilities (net)	332.636	373.497
Accounts Payable (net)	255.994.916	318.114.700
Due to Related Parties (net)	8.022.859	14.869.046
Advances Received	52.397.414	45.665.631
Billings on Construction Contracts in Progress (net)	-	-
Provisions for Liabilities	27.543.644	27.369.058
Deferred Tax Liabilities	-	-
Other Liabilities (net)	312.615.544	444.133.807
<b>Long-Term Liabilities</b>	<b>1.366.116.817</b>	<b>1.915.578.585</b>
Bank Borrowings (net)	-	36.401.442
Financial Lease Obligations (net)	856.730.859	1.443.932.862
Other Financial Liabilities (net)	-	-
Accounts Payable (net)	7.124.267	8.988.621
Due to Related Parties (net)	-	-
Advances Received	-	-
Provisions for Liabilities	113.641.242	117.304.910
Deferred Tax Liabilities	388.620.449	308.950.750
Other Liabilities (net)	-	-

Table 1. (continue)

<b>MINORITY INTERESTS</b>	-	-
<b>SHAREHOLDERS' EQUITY</b>	<b>1.248.341.593</b>	<b>1.609.718.452</b>
Share Capital	175.000.000	175.000.000
Capital Reserves	1.872.838.374	1.922.017.534
- Share Premium	181.185	181.185
- Share Premium of Cancelled Shares	-	-
- Revaluation Surplus on Tangible Fixed Assets	-	49.179.160
- Revaluation Increments on Financial Assets	-	-
- Restatement Effect on Shareholders' Equity	1.872.657.189	1.872.657.189
Profit Reserves	8.223.909	8.223.909
- Legal Reserves	417.011	417.011
- Statutory Reserves	-	-
- Extraordinary Reserves	7.806.889	7.806.889
- Special Funds	9	9
- Associate Shares and Gain on Sale of Investment Property to be added to Capital	-	-
- Foreign Currency Translation Differences	-	-
Net Profit for the Year	138.227.837	185.749.426
Accumulated Profits/(Losses)	(945.948.527)	(681.272.417)
<b>Total Liabilities and Shareholders' Equity</b>	<b>3.813.361.469</b>	<b>4.599.024.733</b>

TA gain income from the following three resources; (1) income from passenger transportation, (2) income from cargo and mail, and (3) other incomes like technical care service, charter, and hiring. In 2006, TA got 80 percent of its total income from passenger transportation, 8 percent of the total income from cargo and mail transportation. The total income of TA was 3.8 billion dollars in 2006 (Table 2).

**Table 2. Turkish Airlines Statements of Income for the Years Ended 31 December 2006 and 2005**

(All amounts expressed in New Turkish Lira (YTL) unless otherwise stated.)

<b>MAIN OPERATING REVENUES</b>	<b>Audited 1 January –31 December 2006</b>	<b>Audited 1 January – 31 December 2005</b>
Sales Revenues (net)	3.813.810.220	2.956.104.996
Cost of Sales (-)	(3.247.648.431)	(2.435.869.117)
Service Revenues (net)	-	-
Other Revenues from Main Operations/Interest+Dividend+Rent (net)	235.572.545	150.966.612
<b>GROSS OPERATING PROFIT</b>	<b>801.734.334</b>	<b>671.202.491</b>
Operating Expenses (-)	(712.312.403)	(577.630.482)
<b>NET OPERATING PROFIT</b>	<b>89.421.931</b>	<b>93.572.009</b>
Income from Other Operations	875.813.548	425.430.333
Losses from Other Operations (-)	(671.072.706)	(277.165.588)
Financial Expenses (-)	(98.102.328)	(60.042.012)
<b>OPERATING PROFIT</b>	<b>196.060.445</b>	<b>181.794.742</b>
Net Monetary Gain/(Loss) (net)	-	-
<b>MINORITY INTEREST</b>	-	-
<b>PROFIT BEFORE TAXATION</b>	<b>196.060.445</b>	<b>181.794.742</b>
Taxes	(10.311.019)	(43.566.905)
<b>NET PROFIT FOR THE YEAR</b>	<b>185.749.426</b>	<b>138.227.837</b>
<b>EARNINGS PER SHARE (YK₺)</b>	<b>0,106</b>	<b>0,079</b>

### **3.2. The Nature of the Turkish Aviation Industry**

Although the Turkish aviation industry is negatively affected by the political and financial crisis, it continues its growth in the long term with the growth of economy, liberalisation, globalisation, developing international trade, lowering prices, and expanding service net. This sector's climax was the terrorist attack on 11 September, 2001 in the USA. The aviation sector was harmed globally due to this attack that gave rise to the bankruptcy of some prominent airline companies. While the aviation sector was trying to recover itself, it was damaged once again by Gulf War and SARS illness in the Far East Asia in 2003. But, Iraqi War was shorter than expected and SARS was taken under control, so aviation sector got into growing trend in 2004.

The high performance of the Turkish economy in recent years, the rising numbers of tourists coming to Turkey, the lower prices of the Turkish private airline companies after tax cut on flight prices in 2004 speeded up the Turkish air transportation sector. Though the domestic passenger number was 8,7 million in 2002, it rose to nearly 20 million in 2005. This number was 38 percent more than the number in 2004.

By 2006, the Turkish aviation sector had 204 passenger planes, 24 cargo planes and capacity of 38 thousand passengers. Although TA had domestic flights from two airports to 25 scheduled domestic points in 2003, the flights today are from seven airports to 38 points. If we bear in mind Turkey's advantageous geographical location, interregional trade development, and improvement efforts in tourism, the Turkish aviation sector which has a growing trend now is expected to continue its growing process.

Furthermore, cargo transportation had a great deal of improvements. There was 74 percent increase in domestic cargo flights between 2002 and 2005. Totally 27.182 tons of cargo capacity was reached by September, 2006.

Turkey due to its geographical location acts like a point of passing between Europe, Middle East and Asia. Improvements in recent years as well as Turkey's liberal policies and bilateral agreements have turned this hectic geographical area to a special centre for passenger and cargo transportation.

However, there are 70 idle airports nationwide that can be opened to air traffic in Turkey. In particular, in the East part of Turkey the number of unused airports is high due to the topographic structure of this region. In a short time, increasing need for air transportation would bring these airports in use and provide important advantages for Turkey.

After the privatisation of the TA in 2003 the number of passengers in Domestic Air Transportation was noticeably increased. This led to new air carriers enter the aviation sector and the competition became severe. The slogan of "Every Turk will try plane at least once" became popular in Domestic Air Transportation. In relation

with the incentive policy to make the domestic flights attractive and to bring activity to the regional airports there has been a reduction in DHMI (Government Airport Service) tariffs and a cut in private communication tax. Furthermore, the Ministry of Transport abolished education contribution pay in 2003 and gave authorisation of domestic flights to private airline companies. With this practice a couple of new private air carrier companies such as Fly Air, Onur Air, Atlas Jet and Pegasus Airlines entered the market. As a consequence, a sudden change and a cutthroat competition developed in the sector.

#### **4. APPLYING THE STRATEGY FORMULATION FRAMEWORK TO THE TURKISH AIRLINES ON DOMESTIC AIR TRANSPORTATION**

This part aims to apply strategy formulation framework to the Turkish Airlines on Domestic Air Transportation. This framework has three stages: (1) input stage, (2) matching stage, and (3) decision stage. Stage 1 consists of the External Factor Evaluation (EFE) Matrix, Internal Factor Evaluation (IFE) Matrix, and Competitive Profile Matrix (CPM). Stage 2 includes Strengths-Weaknesses-Opportunities-Threats (SWOT) Matrix, Strategic Position and Action Evaluation (SPACE) Matrix, Boston Consulting Group (BCG) Matrix, Internal-External (IE) Matrix, and Grand Strategy Matrix. Stage 3 comprises a single technique called Quantitative Strategic Planning Matrix (QSPM).

##### **4.1. The Input Stage**

###### **4.1.1. External Factor Evaluation (EFE) Matrix**

The EFE total weighted score for Turkish Airlines on Domestic Air Transportation is 2.47 (Table 3). This signifies that it is managing these threats and opportunities just below the 2.5 average. Since there are some serious threats, it could try to address these issues in a more efficient and effective manner. A company that finds itself in such a situation should attempt to more effectively counteract threats with opportunities. This will reduce the impact of external threats on the company.

**Table 3. EFE Matrix for the Turkish Airlines on Domestic Air Transportation**

<b>KEY EXTERNAL FACTORS</b>			
<b>Opportunities</b>	<b>WEIGHT</b>	<b>RATING</b>	<b>WEIGHTED SCORE</b>
1. The portion of air transportation in total transportation is very low with respect to land or maritime transportation. The Turkish domestic air transportation market is 20 percent less than that of European counterparts.	0.12	3	0.36
2. The low passenger loadings and low marketing and distribution expenses are some of the important opportunities that TA holds. It is anticipated that TA will increase its present 69 percent passenger loading percentage to 71 percent in 2007 and to 73 percent in 2010.	0.06	3	0.18
3. Due to the direct relation and interaction among the industries of tourism and transportation, the opportunity of integrating tourist activities and domestic air network which is developed in recent years has arisen.	0.10	4	0.40
4. In addition to the tax reductions in ticket fees, the grant providing the freedom of self pricing for airway companies resulted in the opportunity of offering lower prices for the corresponding firms.	0.07	2	0.14
5. Though not all of them are operating, the existence of many airports in the Eastern part of the country which has inconvenient topographic structure provides the advantages of responding the rapid demand for air transportation, and widening the network in national scales.	0.08	2	0.16
6. Through the EU integration process the adoption of EU standards concerning aviation security and safety in Turkish Aviation will be provided. Hence, the security will be increased and the robust development of Turkish Aviation will be provided.	0.04	3	0.12
7. The domestic passenger density in January 2006 has grown 35 percent compared to January, 2005.	0.12	2	0.24
<b>Threats</b>			
1. There are five firms except TA operating in the industry. It is expected that the new firms will enter the industry and that will increase competition, which is presently highly competitive in the industry.	0.12	2	0.24
2. The rapid and unplanned growth in the industry increased the vacant positions for licensed staff needed, and training institutions could not respond vacancies resulting from this rapid growth.	0.06	4	0.24

Table 3. (continue)

3. The rise of fuel prices in the world and the excess taxes on the fuel prices in Turkey: the fuel costs are very essential in pricing process of the tickets. The recent increase in fuel prices all over the world has negative effects on air transportation.	0.09	2	0.18
4. Turkey have borders to the Middle East countries, the battle and political turmoil in this region and the uncertainty in geopolitics will negatively affect the Turkish aviation which is operating so close to the corresponding region, consequently can be a barrier to the development of tourism and air transportation.	0.07	1	0.07
5. In order to survive, the low scale aviation companies added small sized aircrafts to their fleets. Additionally, for the sake of lower prices, different flight alternatives for different levels of economic conditions have been presented. A lot of new flight routes from different cities to Istanbul including Antalya, Izmir, Ankara, and Erzurum have been started.	0.07	2	0.14
<b>Total</b>	<b>1</b>		<b>2.47</b>

#### 4.1.2. Internal Factor Evaluation (IFE) Matrix

The Turkish Airlines on Domestic Air Transportation's IFE total weighted score of 2.57 indicates that they are slightly above average in formulating strategies that capitalise on their strengths and minimise their weaknesses (Table 4).

Table 4. IFE Matrix for the Turkish Airlines on Domestic Air Transportation

KEY INTERNAL FACTORS			
Strengths	WEIGHT	RATING	WEIGHTED SCORE
1. In 2006, TA won second standing in one of the AEA service quality evaluation criteria concerning proportion of "on time departures" in total departures, via achieving a proportion of 83,9 percent.	0.10	2	0.20
2. TA qualified to take the world's # 1 certificate called as IOSA, concerning airport security management given by IATA.	0.08	3	0.24
3. In December 2006, TA decided to join to the biggest global airline alliance named as Star Alliance.	0.09	3	0.27

Table 4. (continue)

4. All of TA domestic offices and agents passed to the e-ticket system.	0.07	4	0.28
5. TA transported 8.9 million passengers in domestic flights, in 2006, which is 23.8 percent higher than previous year.	0.06	3	0.18
6. Through the period between January and December 2006, parallel to the growth in fleet; TA increased its staff by 37.3 percent.	0.06	3	0.18
7. In the period of 2006, TA transported 159,873 tones of cargo, which is 10 percent higher than 2005 figure, additionally; the revenue gathered from cargo has increased 14 percent.	0.05	2	0.10
8. In June 2006, TA qualified for ISO 9001:2000 Quality Certificate.	0.06	3	0.18
9. With the inclusion of 25 new generation planes, the average age of planes in the fleet decreased to 7,3 years, and the number of planes rose by 24.4 percent and reached to 103 in number.	0.12	3	0.36
10. TA can provide education and training to its own pilots.	0.07	2	0.14
<b>Weaknesses</b>			
1. The irrational prices determined by rivals and rapid increase in passenger capacity caused less income margins in 2006.	0.08	2	0.16
2. Depending upon the increase in number of planes financed by leasing, the lease expenditure increased 65 percent and reached to 34 million USD.	0.04	2	0.08
3. Income from operations, which was 89 million USD in 2005, has reduced to 22 million by the effect of 9 percent increase in operational expenses.	0.04	1	0.04
4. Despite 17 percent increase in consumption of fuel, 49 percent increase of fuel expenses with respect to dollars affected EBITDA margin negatively.	0.06	2	0.12
5. There is not Enterprise Resource Planning software the company uses.	0.02	2	0.04
<b>Total</b>	<b>1</b>		<b>2.57</b>

#### 4.1.3. Competitive Profile Matrix

In Competitive Profile (CPM) Matrix there are ten key success factors for the Turkish Airlines (Table 5). They are advertising, product quality, price competitiveness, management, customer loyalty, market share, customer service, e-commerce, management experience, and branding. TA's three major competitors in the aviation industry are Onur Air, Pegasus, and Atlasjet. TA is often seen as the highest quality company providing excellent service. Onur Air is viewed as the cost leader in the industry. Based on the data contained in the CPM, Atlasjet and Pegasus are the most competitive ones followed by Onur Air and then by TA. In terms of price competitiveness Onur Air is the best company, however in customer service all companies in the sector are not doing well.

**Table 5. Competitive Profile Matrix for the Turkish Airlines on Domestic Air Transportation**

CRITICAL SUCCESS FACTORS	WEIGHT	Turkish Airlines		Onur Air		Pegasus		Atlasjet	
		RATING	SCORE	RATING	SCORE	RATING	SCORE	RATING	SCORE
Advertising	0.08	2	0.16	2	0.16	3	0.24	3	0.24
Product Quality	0.14	4	0.56	2	0.28	3	0.42	3	0.42
Price Competitiveness	0.09	3	0.27	4	0.36	3	0.27	3	0.27
Management	0.05	3	0.15	4	0.20	4	0.20	3	0.15
Customer Loyalty	0.12	4	0.48	3	0.36	2	0.24	3	0.36
Market Share	0.20	4	0.80	3	0.60	2	0.40	3	0.60
Customer Service	0.02	4	0.08	1	0.02	2	0.04	3	0.06
E-commerce	0.10	2	0.20	3	0.30	4	0.40	3	0.30
Management Experience	0.05	4	0.20	3	0.15	2	0.10	2	0.10
Branding	0.15	3	0.45	1	0.15	4	0.60	2	0.30
<b>TOTAL</b>	<b>1</b>		<b>3.35</b>		<b>2.58</b>		<b>2.91</b>		<b>2.80</b>

**4. 2. Matching Stage**

**4.2.1. Turkish Airlines on Domestic Air Transportation’s Strengths-Weakness-Opportunities-Threats (SWOT) Matrix**

SWOT Matrix for TA focuses on matching the company strengths to maximizing external opportunities while simultaneously minimizing external threats. Based on the internal strengths/weaknesses and external opportunities/weaknesses positions of Turkish Airlines on domestic Air Transportations, forward integration, market penetration, market development, and product development strategies should be applied to pursue SO, ST, WT, and WO strategies in Table 6.

**Table 6. SWOT Matrix for the Turkish Airlines on Domestic Air Transportation**

	<b>STRENGTHS – S</b>	<b>WEAKNESSES – W</b>
	<ol style="list-style-type: none"> <li>1. In 2006, TA won second standing in one of the AEA service quality evaluation criteria concerning proportion of “on time departures” in total departures, via achieving a proportion of 83, 9 percent.</li> <li>2. TA qualified to take the world’s # 1 certificate called as IOSA, concerning airport security management and given by IATA.</li> <li>3. In December 2006, TA decided to join to the biggest global airline alliance named as Star Alliance.</li> <li>4. All of TA domestic offices and agents passed to the e-ticket system.</li> <li>5. TA transported 8.9 million passengers in domestic flights, in 2006, which is 23.8 percent higher than previous year.</li> <li>6. Through the period between January and December 2006, parallel to the growth in fleet; TA increased its staff by 37.3 percent.</li> <li>7. In the period of 2006, TA transported 159,873 tones of cargo, which is 10 percent higher than 2005 figure, additionally; the revenue gathered from cargo has increased 14 percent.</li> <li>8. In June 2006, TA qualified for ISO 9001:2000 Quality Certificate.</li> </ol>	<ol style="list-style-type: none"> <li>1. The irrational prices determined by rivals and rapid increase in passenger capacity caused less income margins in 2006.</li> <li>2. Depending upon the increase in number of planes financed by leasing, the lease expenditure increased 65 percent and reached to 34 million USD.</li> <li>3. Income from operations, which was 89 million USD in 2005, reduced to 22 million by the effect of 9 percent increase in operational expenses.</li> <li>4. Despite 17 percent increase in consumption of fuel, 49 percent increase of fuel expenses with respect to dollars affected EBITDA margin negatively.</li> <li>5. There is not Enterprise Resource Planning software the company uses.</li> </ol>

Table 6. (continue)

	<p><b>9.</b> With the inclusion of 25 new generation planes, the average age of planes in the fleet decreased to 7, 3 years, and the number of planes rose by 24.4 percent and reached to 103 in number.</p> <p><b>10.</b> TA can provide education and training to its own pilots</p>	
<p><b>OPPORTUNITIES – O</b></p> <p><b>1.</b> The portion of air transportation in total transportation is very low with respect to land or maritime transportation. The Turkish domestic air transportation market is 20 percent less than that of European counterparts.</p> <p><b>2.</b> The low passenger loadings and low marketing and distribution expenses are some of the important opportunities that TA holds. It is anticipated that TA will increase its present 69 percent passenger loading percentage to 71 percent in 2007 and to 73 percent in 2010.</p> <p><b>3.</b> Due to the direct relation and interaction among the industries of tourism and transportation, the opportunity of integrating tourist activities and domestic air network which is developed in recent years has arisen.</p> <p><b>4.</b> In addition to the tax reductions in ticket fees and the grant providing the freedom of self pricing for airway companies resulted in the opportunity of offering lower prices for the corresponding firms.</p> <p><b>5.</b> Though not all of them are operating, the existence of many airports in the Eastern part of the country which has inconvenient topographic structure provides the advantages of responding the rapid demand for air</p>	<p><b>SO STRATEGIES</b></p> <p><b>1.</b> Segment the market in different customer groups that look for shorter long-haul, high frequency, low fare Airlines and develop focused approach marketing strategies (S5-S9,O1-O2-O4).</p> <p><b>2.</b> Enhance the amount of short-haul flights to new cities and airports (S7-S3, O3-O7).</p>	<p><b>WO STRATEGIES</b></p> <p><b>1.</b> An effective Enterprise Resources Planning programme should be adopted to the firm (W5,O2-O4).</p>

*Table 6. (continue)*

<p>transportation, and widening the network in national scales.  <b>6.</b> Through the EU integration process the adoption of EU standards concerning aviation security and safety in Turkish Aviation will be provided. Hence, the security will be increased and the robust development of Turkish Aviation will be provided.  <b>7.</b> The domestic passenger density in January 2006 grew 38 percent compared to January, 2005.</p>		
<p><b>THREATS – T</b>  <b>1.</b> There are five firms except TA operating in the industry. It is expected that the new firms will enter the industry and that will increase competition, which is presently highly competitive in the industry.  <b>2.</b> The rapid and unplanned growth in the industry increased the vacant positions for licensed staff needed, and training institutions could not respond vacancies resulting from this rapid growth.  <b>3.</b> The rise of fuel prices in the world and the excess taxes on the fuel prices in Turkey: the fuel costs are very essential in pricing tickets. The recent increase in fuel prices all over the world has negative effects on air transportation.  <b>4.</b> Turkey have borders to the Middle East countries, the battle and political turmoil in this region and the uncertainty in geopolitics will negatively affect the Turkish aviation which is operating so close to the corresponding region, consequently can be a barrier to the development of tourism and air transportation.</p>	<p><b>ST STRATEGIES</b>  <b>1.</b> Integrate or take-over with tour operators to provide all in one low price weekend and short holiday packages to coastal or national areas (S1-S6-S9,T1-T5).  <b>2.</b> TA should diversify its flight points to Eastern Anatolia and South East Anatolia regions (S9, S6-T1-T5).  <b>3.</b> The frequency of the flights should be increased to the Eastern Anatolia and South East Anatolia regions (S5-S9, T1).  <b>4.</b> TA should educate effectively both its personnel and those in other private firms by developing its education centre (S6-S10, T2).</p>	<p><b>WT STRATEGIES</b>  <b>1.</b> Increasing the number of small sized aircrafts decrease the negative effects of fuel prices.</p>

Table 6. (continue)

<p>5. In order to survive, the low scale aviation companies added small sized aircrafts to their fleets. Additionally, for the sake of lower prices, different flight alternatives for different levels of economic conditions have been presented. A lot of new flight routes from different cities to Istanbul including Antalya, Izmir, Ankara, and Erzurum have been started.</p>		
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#### 4.2.2. Turkish Airlines on Domestic Air Transportation's Strategic Position and Action Evaluation (SPACE) Matrix

Concerning the internal strategic position and external strategic position analyses (Table 7) the Turkish Airlines on Domestic Air Transportation is located in the Competitive Quadrant because the directional vector appears in the lower-right of the SPACE Matrix (Figure 2). Based on the SPACE Matrix, TA should use a competitive strategy which has competitive advantages in a high-growth industry. Thus, TA should first look at some form of integration, followed by market penetration, market development, product development, and finally joint ventures.

Table 7. Factors that Make Up the SPACE Matrix Axes for the Turkish Airlines on Domestic Air Transportation

INTERNAL STRATEGIC POSITION		EXTERNAL STRATEGIC POSITION	
<i>Financial Strength (FS)</i>	<i>Rating</i>	<i>Environmental Stability (ES)</i>	<i>Rating</i>
From 2005 to 2006, EBITDA Margin decreased from 12.63 percent to 10.56 percent.	2	Inflation fell 10 percent in 2006 in Turkey	-2
In 2006, total assets increased to 4.599 USD and recorded an increase of 20.6 percent compared to 2005.	4	There has been increase in the effective use of aerial transportation in domestic tourism.	-3
Firm is strong financially in comparison to competitors.	3	The level of competition has increased by the inclusion of low seat capacity small aircrafts with low prices by private firms in the industry.	-4
In 2006, Shareholder's equity increased to 1.609 million USD with a 28.9 percent increase with respect to 2005.	3	Except TA there are five more companies operating in the domestic market and in the foreseeable future it is anticipated that new entrants to the market will occur.	-5
From 2005 to 2006, Current Ratio increased from 0.69 percent to 0.80 percent.	2	The pressure from competitors is very high	-4
<b>Total</b>	<b>14</b>	<b>Total</b>	<b>-18</b>

*Table 7. (continue)*

<i>Competitive Advantage (CA)</i>	<i>Rating</i>	<i>Industry Strength (IS)</i>	<i>Rating</i>
The company holds 60 percent share of market in domestic scale.	-3	In 2006, 80 percent of total revenues were coming from earnings from passengers.	6
From 2005 to December 2006, seat capacity increased by 24 percent.	-2	In 2006, the Turkish aviation sector had 204 passenger planes, 24 cargo planes and capacity of 38 thousand passengers.	3
With the inclusion of 25 new generation planes, the average age of planes in the fleet decreased to 7, 3 years, and the number of planes rose by 24.4 percent and reached to 103.	-2	In cargo transportation, through the years 2002 and 2005, there was 74 percent increase in domestic cargo industry and by September 2005, a total capacity of 1.041.623 tones of cargo was reached.	4
The number of staff reduced by 25 percent from 2002 to present.	-4	There are 70 airports that are available for domestic industry; this is an advantage for rapidly responding to increasing demand and to expanding countrywide aerial transportation.	4
In all offices and agents of the firm the “e-ticket” sales service is available.	-1	The aviation sector is negatively affected due to terrorist attacks.	2
<b>Total</b>	<b>-12</b>	<b>Total</b>	<b>19</b>

The average score for FS is:  $14 / 5 = 2.8$

The average score for CA is:  $(-12) / 5 = (-2.4)$

The average score for ES is:  $(-18) / 5 = (-3.6)$

The average score for IS is:  $19 / 5 = 3.8$

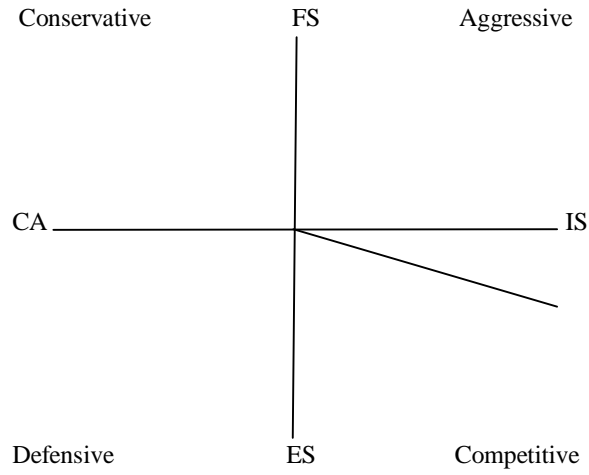
The two scores on the x-axis are added ( $IS + CA = 3.8 - 2.4 = 1.4$ ) and the resultant point is plotted on X.

The two scores on the y-axis are added ( $FS + ES = 2.8 - 3.6 = -0.8$ ) and the resultant point is plotted on Y. The intersection of the new xy point is drawn and a directional vector is drawn.

#### **4.2.3. Turkish Airlines on Domestic Air Transportation’s Boston Consulting Group (BCG) Matrix**

For this matrix we have chosen to evaluate Passenger and Cargo functions of the TA (Table 8). Both of them are positioned on Division II (Stars) according to their market share and industry growth rate percentages (Figure 3). Passenger function has a greater circle and pie slice compared to the cargo function because of greater revenue (92 percent) and market share (89 percent). Forward, backward and

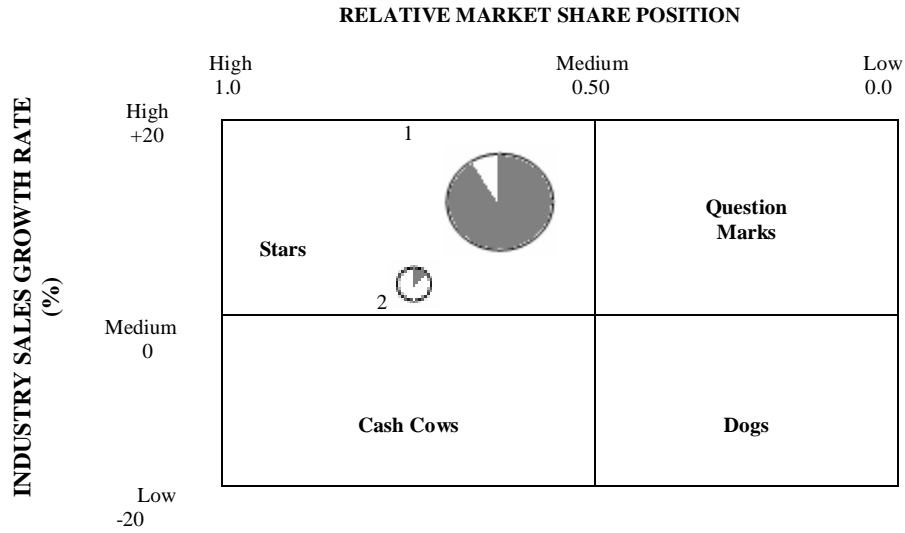
horizontal integration; market penetration; market development; and product development are appropriate strategies for these functions to consider.



**Figure 2. SPACE Matrix for the Turkish Airlines on Domestic Air Transportation**

**Table 8. SBUs in Terms of Sales and Profits in Turkish Airlines on Domestic Air Transportation**

#	Functions	Revenues (USD)	%Revenue	Profits (USD)	%Profits	%Market Share	%Growth Rate
1	Passenger	2.445.000	92	122250	89	0.6	+10
2	Cargo	222.000	8	15540	11	0.55	+7



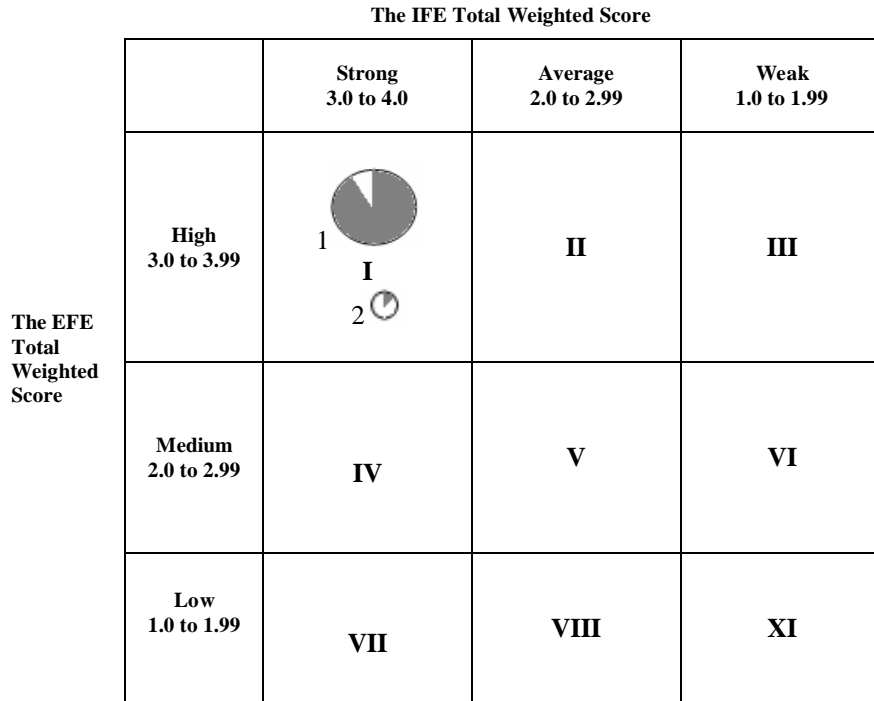
**Figure 3. BCG Matrix for Turkish Airlines on Domestic Air Transportation**

**4.2.4. Turkish Airlines on Domestic Air Transportation’s Internal- External (IE) Matrix**

In Table 9, the passenger function is far better than cargo function in terms of revenues and profits. Thus, in the IE matrix (Figure 4) both passenger and cargo functions are in cell I. This means that the company should follow grow and build strategy. In other words, the company should implement an intensive or integrative strategy. This includes market penetration, market development, and product development for the intensive strategies. For the integrative strategies backward integration, forward integration, and horizontal integration strategies should be considered.

**Table 9. SBUs in Terms of Sales and Profits in Turkish Airlines on Domestic Air Transportation**

#	Functions	Revenues (USD)	% Revenue	Profits (USD)	% Profits	EFE	IFE
1	Passenger	2.445.000	92	122250	89	3.6	3.5
2	Cargo	222.000	8	15540	11	3.2	3.5



**Figure 4. IE Matrix for the Turkish Airlines on Domestic Air Transportation**

#### 4.2.5. Grand Strategy Matrix

Turkey had a rapid market growth position in domestic aviation industry because the passenger density in 2006 grew 35 percent compared to 2005 in domestic aviation industry. TA had a competitive position in domestic air transportation because the domestic passenger number of TA grew 23,8 percent in 2006 compared to 2005.

The Turkish Airlines on Domestic Air Transportation is placed in Quadrant I of Grand Strategy Matrix (Figure 5). It has a strong competitive position because of its ability to increase sales above competition. In addition, it is a financially strong company that has experienced a steady rate of growth. It should continue to implement strategies that strengthen their market position and to consider using excess resources for backward, forward and horizontal integration, and market penetration and market development to increase their competitive advantage.



**Table 10. Outcomes of Techniques in Matching Stage**

<b>Alternative Strategies</b>	<b>SWOT</b>	<b>SPACE</b>	<b>BCG</b>	<b>IE</b>	<b>GRAND</b>	<b>TOTAL</b>
Forward Integration	X				X	2
Backward Integration					X	1
Horizontal Integration					X	1
<b>Market Penetration</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>5</b>
<b>Market Development</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>5</b>
<b>Product Development</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>5</b>
Related Diversification			X	X	X	3
Unrelated Diversification			X	X		2
Retrenchment						0
Divestiture						0
Liquidation						0

In QSPM for Turkish Airlines on Domestic Air Transportation we have looked to the extent to which key external and internal critical success factors are capitalised upon or improved. We have also given the attractiveness scores for each of these alternative strategies and found out their total attractiveness scores. The sum total attractiveness score of 5.32 in Table 11 indicates that the market penetration is a more attractive strategy for Turkish Airlines on Domestic Air Transportation when compared to market development and product development.

**Table 11. QSPM for Turkish Airlines on Domestic Air Transportation**

		STRATEGIC ALTERNATIVES					
		Market Penetration		Market Development		Product Development	
Key Factors	Weight	AS	TAS	AS	TAS	AS	TAS
<b>Key External Factors</b>							
<b>Opportunities</b>							
1. The portion of air transportation in total transportation is very low with respect to land or maritime transportation. The Turkish domestic air transportation market is 20 percent less than that of European counterparts.	0.12	4	0.48	4	0.48	2	0.24
2. The low passenger loadings and low marketing and distribution expenses are some of the important opportunities that TA holds. It is anticipated that TA will increase its present 69 percent passenger loading percentage to 71 percent in 2007 and to 73 percent in 2010.	0.06	3	0.18	2	0.12	2	0.12
3. Due to the direct relation and interaction among the industries of tourism and transportation, the opportunity of integrating tourist activities and domestic air network which is developed in recent years has arisen.	0.10	4	0.40	4	0.40	3	0.30
4. In addition to the tax reductions in ticket fees and the grant providing the freedom of self pricing for airline companies resulted in the opportunity of offering lower prices for the corresponding firms.	0.07	4	0.28	3	0.21	3	0.21
5. Though not all of them are operating, the existence of many airports in the Eastern part of the country which has inconvenient topographic structure provides the advantages of responding the rapid demand for air transportation, and widening the network in national scales.	0.08	-		-		-	
6. Through the EU integration process the adoption of EU standards concerning aviation security and safety in Turkish Aviation will be provided. Hence, the security will be increased and the robust development of Turkish Aviation will be provided.	0.04	2	0.08	2	0.08	2	0.08
7. The domestic passenger density in January 2006 grew 35 percent compared to January, 2005.	0.12	3	0.36	3	0.36	2	0.24

Table 11. (continue)

<b>Threats</b>							
8. There are five firms except TA operating in the industry. It is expected that the new firms will enter the industry that will increase competition, which is presently highly competitive in the industry.	0.12	3	0.36	3	0.36	1	0.12
9. The rapid and unplanned growth in the industry increased the vacant positions for licensed staff needed, and training institutions could not respond vacancies resulting from this rapid growth.	0.06	2	0.12	2	0.12	3	0.18
10. The rise of fuel prices in the world and the excess taxes on the fuel prices in Turkey: the fuel costs are very essential in pricing tickets. The recent increase in fuel prices all over the world has negative effects on air transportation.	0.09	3	0.27	2	0.18	2	0.18
11. Turkey have borders to the Middle East countries, the battle and political turmoil in this region and the uncertainty in geopolitics will negatively affect the Turkish aviation which is operating so close to the corresponding region, consequently can be a barrier to the development of tourism and air transportation.	0.07	-		-		-	
12. In order to survive, the low scale aviation companies added small sized aircrafts to their fleets. Additionally, for the sake of lower prices, different flight alternatives for different levels of economic conditions have been presented. A lot of new flight routes from different cities to Istanbul including Antalya, Izmir, Ankara, and Erzurum have been started.	0.07	2	0.14	3	0.21	3	0.21
<b>Key Internal Factors</b>							
<b>Strengths</b>							
1. In 2006, TA won second standing in one of the AEA service quality evaluation criteria concerning proportion of “on time departures” in total departures, via achieving a proportion of 83,9 percent.	0.10	4	0.40	4	0.40	4	0.40

*Table 11. (continue)*

2. TA qualified to take the world's # 1 certificate called as IOSA, concerning airport security management given by IATA.	0.08	3	0.24	3	0.24	3	0.24
3. In December 2006, TA decided to join to the biggest global airline alliance named as Star Alliance.	0.09	-		-		-	
4. All of TA domestic offices and agents passed to the e-ticket system.	0.07	3	0.21	3	0.21	2	0.14
5. TA transported 8.9 million passengers in domestic flights, in 2006, which is 23.8 percent higher than previous year.	0.06	4	0.24	2	0.12	1	0.06
6. Through the period between January and December 2006, parallel to the growth in fleet; TA increased its staff by 37.3 percent.	0.06	2	0.12	1	0.06	1	0.06
7. In the period of 2006, TA transported 159,873 tones of cargo, which is 10 percent higher than 2005 figure, additionally; the revenue gathered from cargo has increased 14 percent.	0.05	3	0.15	2	0.10	2	0.10
8. In June 2006, TA qualified for ISO 9001:2000 Quality Certificate.	0.06	3	0.18	3	0.18	3	0.18
9. With the inclusion of 25 new generation planes, the average age of planes in the fleet decreased to 7,3 years, and the number of planes rose by 24.4 percent and reached to 103 in number.	0.12	4	0.48	3	0.36	3	0.36
10. TA can provide education and training to its own pilots.	0.07	1	0.07	1	0.07	2	0.14
<b>Weaknesses</b>							
11. The irrational prices determined by rivals and rapid increase in passenger capacity caused less income margins in 2006.	0.08	2	0.16	1	0.08	1	0.08
12. Depending upon the increase in number of planes financed by leasing, the lease expenditure increased 65 percent and reached to 34 million USD.	0.04	2	0.08	2	0.08	2	0.08
13. Income from operations, which was 89 million USD in 2005, has reduced to 22 million by the effect of 9 percent increase in operational expenses.	0.04	3	0.12	2	0.08	2	0.08
14. Despite 17 percent increase in consumption of fuel, 49 percent increase of fuel expenses with respect to dollars has affected EBITDA margin negatively.	0.06	3	0.18	2	0.12	2	0.12
15. There is not Enterprise Resource Planning software the company uses.	0.02	1	0.02	1	0.02	1	0.02
<b>Sum Total Attractiveness Score</b>			<b>5.32</b>		<b>4.64</b>		<b>3.94</b>

## **5. THE LIMITATIONS OF THE STRATEGY FORMULATION FRAMEWORK**

In the use of the strategy formulation framework at the Turkish Airlines on Domestic Air Transportation we have observed three limitations. They are merely the outcomes of this particular example.

We argue that the strategy formulation framework requires intuitive judgments and educated assumptions from the practitioner/strategist. The numerical values that are assigned as rating and attractiveness scores are judgmental decisions in QSPM although they should be based on objective information. QSPM is dependent on techniques in Matching Stage. In other words, as David (1986) pointed out that it can only be as good as the prerequisite information and matching analyses upon which it is based. In the use of QSPM for Turkish Airlines on Domestic Air Transportation we have sometimes been hindered by our subjective predilections that got unduly embedded in the strategy formulation process.

Another point is that the practitioner as an hired consultant may be serving to the interests of top managers or owners of the firm and may disregard the interests of disadvantaged (silenced and marginalised) groups, this may bring about deleterious consequences for the firm. In the strategy formulation framework there is no arrangement that points up the nature of the relationship between employees of the firm, particularly managers and workers and their roles in a participative process. For example, in SWOT analysis of Turkish Airlines on Domestic Air Transportation we as practitioners with the TA's strategy unit expert have been free to decide on different concerns of the company based on our expert eye. We have sophisticatedly classified and listed existing strengths, weaknesses, opportunities and threats of the company as outcomes or recommendations for future test. In other words, we have helped organise the existing knowledge toward a specific purpose, we did not transfer new information (Kay, 1993). In BCG matrix analysis we have solely analysed the company from industry growth and market share perspectives and have suggested alternative strategies for its departments/services-passenger function and cargo function. This study has provided implications to the managers of Turkish Airlines about organisational learning, future investment opportunities, and cash flow. Likewise, in SPACE Matrix analysis we have been more certain due to the specific variables of internal and external dimensions of Turkish Airlines. In these meetings of data collection for the application of the framework in Turkish Airlines there was no single representative from the shop level workers. Thus, goals, interests and aspirations of TA on Domestic Air Transportation' workers were neglected.

The final criticism is related to the issue of cultural feasibility. At the end of the application of David's strategy formulation framework to the company, the analyst would come up with a set of strategies that may not commensurate with values, norms, goals, and objectives of the firm. Under such circumstances, the suggestions of the practitioner would not be pragmatic. Thus, the framework should be designed in a way that is loyal to the values, norms, goals, objectives and interpretive schemes

of the company. At the end of the application of strategy formulation framework to the Turkish Airlines on Domestic Air Transportation department we have recommended market penetration strategy as most appropriate to the company. However, the company could not implement this strategy promptly due to a conflict that was in its manifest stage between top level managers and workers. Therefore, for the time being this strategy was not feasible for the company. David's strategy framework has not told us what to do in this situation.

## **6. CONCLUSION**

In this paper we have aimed at using Fred David's strategy formulation framework in the Turkish Airlines on Domestic Air Transportation and revealing some limitations of this model. We have first described the theoretical ground for the framework, second have collected relevant data and have designed the case study of Turkish Airlines on Domestic Air Transportation, third have applied the strategy formulation framework to the company and have proposed the most appropriate strategy from amongst alternative strategies to the company, and finally have come up with some limitations in the use of this framework at the Turkish Airlines on Domestic Air Transportation.

We should admit that David's strategy formulation framework have allowed us as practitioners to examine a set of methods and techniques simultaneously. Although it has been related to the frequency of choice of techniques in Matching Stage, there has been a high probability to evaluate a high number of strategies in QSPM. This has augmented the quality of long range decision making.

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