EFFECTIVE INTERNATIONAL EXPANSION STRATEGIES OF DEVELOPING COUNTRIES: SOME PRELIMINARY EVIDENCE FROM THE TURKISH MANUFACTURE AND EXPORT OF TELEVISION SETS

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ABSTRACT

Over the last twenty years, Turkey has significantly increased its international trade in manufactured products. It is possible that this has been built on the basis of its lower labour costs compared with those of developed countries and the willingness of both Turkish national companies and Multi National Enterprises (MNEs) to invest in Turkey. While the basic evidence of Turkish trade development is clear, there has been only limited research on the business logic behind such growth, the reasons for choosing particular forms of expansion and the outcomes of such strategies at the present time for Turkish companies.

In order to explore these issues, we have undertaken a preliminary study of the Turkish manufacture and export of television set companies. Our findings show that companies have largely focused on European markets. We do not yet know the reasons for this but will investigate this in the next stage of our research. It is possible that our later research may provide some assistance both to individual companies and to Turkish national policy makers on future export development. However, our primary purpose will be to shed further light on the content and process by which developing countries pursue effective international expansion strategies.

Keywords:
Global strategy; Developing Country Strategy; Turkey Export Strategy; Turkish Television Set Manufacture

INTRODUCTION

Over the last twenty years, Turkey has significantly increased its international trade in manufactured products: for example, merchandise exports measured in US dollars grew 284 per cent between years 2000 and 2007 (UNCTAD 2008). There is some evidence to suggest that this has primarily been built on the basis of its lower labour costs compared with those of developed countries and the willingness of both Turkish national companies and Multi National Enterprises (MNEs) to invest in Turkey (Dunning and Lundan 2008).

We have chosen to focus on the Turkish electronics industry because it has had some success in recent years (TÜİK 2008a). The industry contains six sub-sectors: electronic components, consumer electronics, telecommunications equipment, computers, professional and industrial electronics equipment, and military electronics (DPT, 2007: 7). We have selected consumer electronics for our main research at this stage because it is the largest single sector within this category.

According to the Turkish State Planning Organization (DPT), the consumer electronics industry includes: all kinds of color televisions, audio devices, electronic scales, electronic calculators, video recorders, cash registers, audio/video cassettes, TV satellite receivers, and antenna stations (DPT, 2007: 121). However, the main driver of growth within consumer electronics has been television sets. We have therefore chosen at this stage in our research to focus on television manufacture, import and export. In 2007, Turkish television manufacturers commanded 55% of the European Union cathode-ray tube TV market (Turkish Ministry of Industry and Trade, 2008). In 2007 12.6 million sets were manufactured (TÜİK, 2008a), and that number was projected to reach 21 million sets by 2010 (DPT, 2007: 144). Television exports alone accounted for 1.9% of Turkey's total exports for 2007, revealing the strategic importance of the industry for Turkey's economy.

While the basic evidence of Turkish trade development is clear, there has been only limited research on the business logic behind such growth, the reasons for choosing particular forms of expansion and the outcomes of such strategies at the present time for Turkish companies. In turn, this relates to fundamental questions in international business literature: How do industries in developing countries like Turkey, China and India compete and sustain their growth over time? What are the key components of such international expansion strategies? To what extent are joint ventures, licensing and other forms of expansion important?

At the present time, there is only limited evidence on these broad and complex questions. We can find very few research papers at present on Turkish international expansion strategies. The purpose of this paper is to begin to address this issue. The new contribution of this paper is therefore to find the evidence and consider its implications for effective international expansion strategies of developing countries.

Our study explores Turkish television set manufacturers that have entered the global consumer electronics market after their well-established rivals. The reasons for choosing this product category are explored later in this paper. We draw on historic data for the shifting fortunes of other companies in the international consumer electronics industry to provide some strategic perspective. We then consider the following issues: How important have Turkish companies become? What are their prime sources of their international business at the present time? Why have they chosen particular strategies? And with what outcomes?

Specifically, this paper seeks to begin to address the following research questions:

1. How has Turkish television set manufacture grown over the last ten years? And with what results both internationally and domestically?
2. What strategies have Turkish companies used in their expansion? Specifically, what has been the role of pricing and innovation?

3. What are the managerial implications for effective international strategy development by developing countries?

We wish to emphasise that this paper represents a preliminary, exploratory study. We do not expect to obtain full answers to the above questions from this current paper.

LITERATURE REVIEW AND RESEARCH FRAMEWORK

Although the literature in international business research is extensive and continues to grow (Werner, 2002), Axinn and Matthyssens (2002) have argued that most theories on international strategies focus on explaining the behaviour of large firms from developed countries. They do not provide the same insights into the behaviour of firms from developing nations in the international market place. Given the emergence of companies from new international trading nations like India, China and Turkey, the authors claim that it is imperative to look at new empirical evidence, rather than rely on existing theories of international trade. Equally, Buckley (2002) commented that the entry of developing countries as major players in the global economy may give new impetus to such research. This is echoed by other scholars' calls for research into strategies for firms from emerging economies (Peng, 2005).

In view of the preliminary nature of the research developed in this paper, we have chosen to summarise the main strands of the literature in the table below. We make the assumption that readers will be broadly familiar with the relevant papers and focus on drawing out the main highlights.

With regard to our research framework, we have taken the view that the first stage in our research is to gather and review the existing data on Turkish business activity in our chosen sector. As a second stage, we would then expect to explore the reasons behind the data and thereby draw out some conclusions on effective international expansion by Turkish companies and its implications for effective international expansion strategy by developing countries. However, this latter part does not form part of this initial approach.

Strategic issues	Some references
International business expansion	Dunning and Lundan 2008, Werner 2002; Axinn and Matthysens 2002; Buckley 2002, Johanson and Vahlne 1977
Global strategy and related issues in regional strategy	Levitt, 1983; Douglas and Wind, 1987; Ghoshal, 1987; Yip, 1992; Dunning 1993; Dunning 1995; Ghemawat and Gaidar, 2000; Ghemawat 2003; Rugman and Verbeke 2003a, Rugman and Verbeke 2003b
Turkish international strategy – including routes to development	Taylan and Aari 2008, Ates 2006, Çakır, 2004, Karabati and Tan 2005
Strategic process	Huff and Reger, 1987; Pettigrew, 1992; Papadakis and Barwise, 1997; Chakravarthy and White, 2002 – who identify four routes
Entry and expansion strategies of MNEs	Dunning and Lundan 2008, Delios and Henisz 2003, Forsgren 2002, Bartlett and Ghoshal 1989, Doz et al 2001
Company resource management – international decisions and expansion	Doz 1986; Ohmae, 1983; Doz and Prahalad, 1991; Barney, 1991; Peteraf, 1993; Murtha et al 1998; Grant, 2002, Lynch 2008

RESEARCH METHOD

At this early stage in our research, we have taken an eclectic approach to the gathering of data. We have been more concerned to see where the strands of information might lead us than to address specific hypotheses. Our approach has therefore been to examine the existing trade and company data in Turkey from an international development perspective.

The main data sources have been developed under the guidance and sponsorship of the Turkish Ministry of Industry and Trade (2008), the State Planning Organisation of Turkey DPT (2007), and the Istanbul Chamber of Industry (2001 and 2008). We have drawn heavily on these sources in our initial examination of the issues. However, some of this data has been summarised in reports prepared by the Turkish government and other official organisations and may therefore be subject to the opinions of those tasked with drawing up reports on Turkish international performance. To ensure that our data is accurate and not subject to interpretation bias, we have used the raw data from the relevant Turkish government offices in the compilation of our research rather than rely solely on the finished reports.

Initially we had some difficulty with the data from these sources but we have now resolved these problems. We are confident that our basic research information provides an adequate picture of the state of television production and international trade up to 2007. However, we would caution that the international trade downturn in 2009 is not reflected in our data set. Effective international development strategies may need to be reconsidered in this latter context over the period from 2010.

In addition to Turkish government official statistics, we have used the business press, personal contacts and other reports to develop as full a picture as possible at this stage of the Turkish television set industry, its role and strategies in international trade development.

PRELIMINARY RESEARCH RESULTS

Brief History of Consumer Electronics in Turkey

The Turkish electronics industry, considered Turkey’s third biggest industry following textiles and construction, has had its beginnings in the early 1950s, in radio assembly manufacturing. This was followed by the manufacturing of telephone operating systems in the 1960s, and television manufacturing in 1968. In 1964, the government laid the groundwork for the establishment of a Turkish electronics industry by including a feasibility report in the First Five-Year Development Plan (Çakır, 2004: 4). In the second half of the 1960s, this time the start was given to the telecommunications industry. Therefore, mid-1960s can be said to have been critical years for the Turkish electronics industry.

The consumer electronics subindustry began to develop rapidly in the second half of the 1980s. Giving it fresh impetus was the beginning of investments in color broadcasting. Again during this decade the contribution of foreign direct investment made possible manufacturing in many different subindustries of electronics (Çakır, 2004: 5). Most Turkish companies began production through foreign license agreements, with the licensors originating from the Netherlands, Germany, Japan, USA, Canada, France, the UK, Denmark, and Italy (Sarı and Taylan, 2008: 1). The liberalization policies of the 1980s translated into increased productivity for consumer electronics manufacturers, who, as a result, increased their exports significantly (Çakır, 2004: 5). Today the industry can be said to have reached a significant level of technical proficiency.

Turkey's Place in the World Television Set Industry

World television sales were estimated to be around 107 billion dollars in 2007 (Turkish Ministry of Industry and Trade, 2008). Asian countries' share in total production seems to continue increasing while that of Western Europe and the US decreases even if slightly (Çakır, 2004: 7). Japan is the world leader in color television manufacturing, followed by China and South Korea (ibid.). In the world market for television sets the biggest shares belong to Samsung (14%), LG (11%), Philips (7%), Sony (6%), and TCL (6%) (Turkish Ministry of Industry and Trade, 2008).

With exports of television sets estimated to be around 2.03 billion dollars in 2007 (TÜİK, 2008b), Turkey has a 1.9 % share in world television sales. Market share in Europe is estimated to be 40% (Turkish Ministry of Industry and Trade, 2008).

Prior to 1970, television manufacturing was vertically integrated; today, however, companies utilize external suppliers more and outsource manufacturing and design of components and products (Karabatı and Tan, 2005). During the 1990s, Turkey appeared as a low-cost manufacturing destination (ibid.). While Turkish manufacturers usually work as OEMs for manufacturers in Europe, by engaging in serious investments, some of them have turned into ODMs in time (DPT, 2007: 126).

Turkey captured the position of leading manufacturer in Europe in 1997 (Çakır, 2004: 11) and continues to maintain that position. The bulk of Turkish TV exports is composed of cathode-ray tube television sets (Please see Tables 4 and 5). Consumer gravitation away from CRT sets towards larger screen LCD and plasma sets is expected to grow exponentially (DPT, 2007: 129), and this trend is apparent in major markets such as the US, where CRT sets have already ceded leadership to flat panels (DuBravac, 2007).

Production and Sales

Production of television sets in Turkey began in 1968, with a mere 1,532 sets (Çakır, 2004: 10). As television broadcasting spread in the 1970s, demand for television receivers rose. By 1971, production had increased nearly five-fold to 6,882 units (ibid.). Starting in 1972, imports decreased, and local manufacturers began to dominate the home market. Between 1968 and 1984 (the black-and-white television era), 1977 stands out as the year when black-and-white TV set production reached its peak (683,848 units) (ibid.). In 1984 color broadcasting began across the country, as a result of which demand for color television receivers climbed steeply. Color television production began in 1983, and starting in 1990, all of the television sets produced were color TVs (Usta, 2002: 14).

Factory sales of television sets for 25 years, between 1983-2007, are given in Table 1.

Table 1: Television production in Turkey, 1983-2007

Year	Total Factory Salers (UNITS)	Rate of Growth Year on Year
1983	419.276	
1984	819.001	0,95
1985	1.016.616	0,24
1986	870.843	-0,14
1987	690.187	-0,21
1988	738.221	0,07
1989	999.264	0,35
1990	1.994.621	1,00
1991	2.567.773	0,29
1992	2.111.089	-0,18
1993	1.921.704	-0,09
1994	1.528.255	-0,20
1995	1.859.333	0,22
1996	2.509.712	0,35
1997	4.657.007	0,86
1998	5.794.771	0,24
1999	6.941.004	0,20
2000	8.788.294	0,27
2001	8.025.118	-0,09
2002	12.462.924	0,55
2003	15.035.590	0,21
2004	20.345.757	0,35
2005	20.790.123	0,02
2006	17.930.371	-0,14
2007	12.591.569	-0,30
Total	153.408.423	

Source: TÜİK Turkish Statistics Institute, 2008a.

The production of television sets follows to some extent economic vicissitudes, shrinking in recession years and rebounding once the economy becomes stronger. The economic recession of 1994 caused the contraction of the entire consumer electronics output in Turkey by 50% and forced the industry to seek overseas markets (Istanbul Chamber of Industry, 2001: 34). Consequently, between 1995 and 1999 the share of exports in total consumer electronics output exceeded 50% (ibid.).

Television set output, in the year 2000, increased by 27% compared to the previous year, reaching nearly 9 million sets (Please see Table 1). This was largely the result of the implementation of a fixed exchange rate policy, a relative decrease in interest rates, extension of consumer credit, and promotional campaigns, which stimulated demand (Çakır, 2004: 11). The growth trend, however, was disrupted with the severe recession experienced in 2001, and the industry's problems were further compounded with an anti-dumping investigation instigated by the EU in the year 2000 (Careful investigation of the costs of Turkish manufacturers later resulted in the dropping of anti-dumping charges against them). Consequently, output contracted by 9% from the previous year, and domestic sales fell by 44%. The industry managed to survive the recession by emphasizing export sales, thanks to which production rebounded the following year with a robust 55% increase (Please see Table 2). Between the year 2000 and 2006, the share of television exports in total television production consistently topped 80%, and frequently exceeded 90%.

Table 2: Production, Exports, Sales, and Home Market Sales of TV Sets in Turkey, 1998-2007

TELEVISION SET PRODUCTION, EXPORTS, AND HOME SALES, 1998-2007						
	Production (Units)	Exports (Units)	Share of Exports in Production	Total TV Sales (incl. both exports and home sales of domestically produced TV sets)[b, c] (Units)	Home Market Sales* (Units)	Share of Home Market Sales in Total TV Sales
1998	5.794.771	4.845.796	0,84	6.331.287	1.485.491	0,23
1999	6.941.004	5.425.734	0,78	6.852.248	1.426.514	0,21
2000	8.788.294	7.287.323	0,83	8.730.738	1.443.415	0,17
2001	8.025.118	6.978.610	0,87	8.009.956	1.031.346	0,13
2002	12.462.924	11.726.289	0,94	12.368.609	642.320	0,05
2003	15.035.590	14.836.697	0,99	15.247.245	410.548	0,03
2004	20.345.757	18.583.429	0,91	19.954.095	1.370.666	0,07
2005	20.790.123	16.942.529	0,81	19.125.701	2.183.172	0,11
2006	17.930.371	14.680.350	0,82	16.614.095	1.933.745	0,12
2007	12.591.569[a]	8.708.505[a]	0,69[a]	11.900.974[a]	3.192.469[a]	0,27[a]

*Calculated from Total Sales and Export figures and therefore does not include the sales of imported brands.

[a] Estimated figure.

[b] Source: TÜİK (2009).

[c] Sales figures for the years 2005-2007 were unavailable for 51 cm and 55 cm television sets.

Source: TÜİK (2008a and 2008b).

It is hard to miss, however, the recent trend of decline in the year-on-year growth rate. As Europe constitutes the major export market of Turkish TVs, unfavorable economic developments in Europe as well as increasing competition in the European market seem to immediately result in repercussions for Turkish TV manufacturers. One of the reasons for the declining production may be the increasing consumer preference for LCD and plasma televisions in recent years. Another reason may be Turkish manufacturers' increasingly shifting their manufacturing operations abroad.

There are 326 firms operating in the industry of TV-radio receivers and audiovisual equipment, employing around 9,000 workers (Taylan and Sarı, 2008: 2). The main factories are located in Istanbul and Manisa (Taylan and Sari, 2008: 2). The leading manufacturers of television sets are Arçelik-Beko (Beko Elektronik is now Grundig Elektronik, which merged entirely with Arçelik in late February of 2009), Vestel, and Profilo (Ministry of Industry and Trade, 2008).

Television Exports

In consumer electronics exports, color TV tops the list, accounting for 94.4% of all industry exports in 2007 (TÜİK 2008b), and accounting for over 90% of all industry exports consistently since 1999 (Please see Table 3). In fact, since 1991 Turkey has enjoyed the position of net exporter of television sets.

Since 1990 manufacturers of consumer electronics in Europe have lost market share due to the high costs of labor and material (Çakır, 2004: 12). Turkish manufacturers have used the advantage of low labor costs to enter the European market. The application of anti-dumping restrictions against Far Eastern companies in mid-1990s provided an additional advantage for Turkish companies, which have been insulated from the competition of their Far Eastern rivals (ibid.). In recent years, this advantage seems to be eroding as Far Eastern companies establish production centers in Europe in order to bypass anti-dumping regulations and customs barriers.

Table 3: Turkey's Television Exports, 1998-2007

	TV Exports	TV Exports	Total Consumer Electronics Exports	Share of TV exports in total consumer electronics
	(units)	(US dollars)	(US dollars)	
1998	4.845.796	735.933.788	837.555.978	0,88
1999	5.425.734	674.894.281	736.649.395	0,92
2000	7.287.323	839.858.926	890.169.624	0,94
2001	6.978.610	864.986.214	921.778.005	0,94
2002	11.726.289	1.465.640.596	1.517.668.540	0,97
2003	14.836.697	1.820.244.134	1.908.326.713	0,95
2004	18.583.429	2.680.456.842	2.848.708.417	0,94
2005	16.942.529	2.933.948.995	3.130.934.434	0,94
2006	14.680.350	2.421.853.638	2.544.743.822	0,95
2007	8.708.505[a]	2.025.390.007[a]	2.144.759.796[a]	0,94[a]
[a] Estimated figure.				
* Source: TÜİK Turkish Statistics Institute, 2008b.				

In fact, investments in recent years have been directed towards the former Eastern Bloc countries such as Hungary, Poland, and the Czech Republic as well as to countries where cheap and quality labor is readily available (Çakır, 2004: 13). Special privileges granted by some governments in Europe to attract foreign direct investment have exacerbated competition (ibid.).

Export numbers, as growth in production, also indicate a declining trend in recent years. One of the reasons may be the appreciating Turkish lira. Another may be Turkish manufacturers' increasingly shifting their manufacturing facilities abroad. Yet another reason may be the growing consumer shift away from cathode-ray tube televisions, which constitute the bulk of Turkish television manufacturing, towards LCD and plasma sets.

Examination of exported television sets by type seems to confirm this trend (Please see Table 4). While television sets with a screen size smaller than 42 cm had a share of 40% among total television export shipments for 1998, their share has fallen to 28% in 2006 and 2007. The share of the television set category with a screen size above 52 centimeters and below 72 centimeters, on the other hand, jumped from 1% in 1999 to 46% in 2000, and in 2002 constituted 47% of total TV exports. In 2006 this category's share was 29% in total TV exports. Parallel with consumer trends, the above-72 cm screen CRT televisions have increased their share in TV exports consistently between 1998 and 2006, accounting for 4% of total TV shipments abroad in 2006 and 5% of total TV exports in value the same year.

Table 4: Turkey's Television Exports by Television Type (units)

TURKEY'S TELEVISION EXPORTS FOR 1998-2007 (Units)						
	1998	**1999**	**2000**	**2001**	**2002**	**2003**
CRT TV (screen diagonal<42 cm)	1.952.360	2.274.311	2.732.193	2.169.596	3.586.782	4.167.003
CRT TV (42 cm<screen diagonal <52 cm)	946.468	1.125.803	1.511.677	1.253.942	1.888.235	1.973.792
CRT TV (52 cm<screen diagonal <72 cm)	1.909.079	1.921.015	2.803.359	3.213.177	5.505.734	6.167.973
CRT TV (screen diagonal >72 cm)	26.119	46.640	104.185	172.536	257.177	284.104
CRT TV Subtotal	**4.834.026**	**5.367.769**	**7.151.414**	**6.809.251**	**11.237.928**	**12.592.872**
CRT TV Other	1.301	12.755	59.720	94.723	175.490	468.267
CRT TV Total	**4.835.327**	**5.380.524**	**7.211.134**	**6.903.974**	**11.413.418**	**13.061.139**
Combined TV	4.731	1.851	1.760	9.894	238.841	709.321
Video tuners with screen and others	392	2.662	2.740	35	4.231	887.807
Other TV	5.346	40.697	71.689	64.707	69.799	178.430
TV TOTAL*	**4.845.796**	**5.425.734**	**7.287.323**	**6.978.610**	**11.726.289**	**14.836.697**
Total Consumer Electronics	**4.916.955**	**5.514.070**	**7.392.675**	**7.148.101**	**35.096.933**	**71.829.001**

	2004	**2005**	**2006**		**2007****
CRT TV (screen diagonal<42 cm)	4.880.936	4.212.850	4.124.177	CRT TV (screen diago-nal<42 cm)	2.473.404
CRT TV (42 cm<screen diagonal <52 cm)	2.259.137	1.676.881	1.749.455	CRT TV (42 cm<screen diagonal <52 cm)	
CRT TV (52 cm<screen diagonal <72 cm)	6.439.098	5.322.690	4.303.697	CRT TV (52 cm<screen diagonal <72 cm)	1.125.762
CRT TV (screen diagonal >72 cm)	483.329	528.360	649.882	CRT TV (screen diagonal >72 cm)	48.448
CRT TV Subtotal	**14.062.500**	**11.740.781**	**10.827.211**	CRT TV Subtotal	**3.647.614**
CRT TV Other	1.095.520	822.390	486.979	CRT TV Other***	
CRT TV Total	**15.158.020**	**12.563.171**	**11.314.190**	CRT TV Total	**3.647.614**
Combined TV	2.060.656	1.238.159	1.007.722	Plasma TV***	
Video tuners with screen and others	791.076	2.347.339	1.899.632	LCD TV	4.331.682
Other TV	573.677	793.860	458.806	Other TV	729.209
TV TOTAL*	**18.583.429**	**16.942.529**	**14.680.350**	TV TOTAL*	**8.708.505**
Total Consumer Electronics	**70.388.814**	**65.398.984**	**21.204.977**	Total Consumer Electronics	**45.103.024**

***** The customs tariff position number "85-28" includes besides television sets, teleprojectors, color video projectors, and satellite television receivers. Since the latter constitutes only a small segment within the category, they were included in "Other TV" and hence 'TV TOTAL".

****** The 2007 figures are provisional.

******* According to the legislation pertaining to data confidentiality, certain figures were not released.

Source: TÜİK, 2008b.

Table 5: Turkey's Television Exports by Television Type (US dollars)

TURKEY'S TELEVISION EXPORTS FOR 1998-2007 (US Dollars)

	1998	1999	2000	2001	2002	2003
CRT TV (screen diagonal<42 cm)	204.478.796	197.760.623	224.046.150	172.871.519	259.705.693	307.378.741
CRT TV (42 cm<screen diagonal <52 cm)	129.532.497	127.159.027	151.183.617	124.153.239	173.710.558	202.483.561
CRT TV (52 cm<screen diagonal <72 cm)	387.768.643	324.979.285	413.146.267	480.970.619	826.486.874	898.833.102
CRT TV (screen diagonal >72 cm)	13.018.676	16.103.822	27.250.205	46.522.459	74.721.655	88.109.661
CRT TV Subtotal	**734.798.612**	**666.002.757**	**815.626.239**	**824.517.836**	**1.334.624.780**	**1.496.805.065**
CRT TV Other	329.660	4.727.409	20.550.096	35.657.764	69.629.489	142.366.616
CRT TV Total	735.128.272	670.730.166	836.176.335	860.175.600	1.404.254.269	1.639.171.681
Combined TV	174.580	183.515	266.322	2.067.893	52.686.504	103.493.453
Video tuners with screen and others	189.154	299.668	320.087	51.751	1.365.788	22.052.121
Other TV	441.782	3.680.932	3.096.182	2.690.970	7.334.035	55.526.879
TV TOTAL*	**735.933.788**	**674.894.281**	**839.858.926**	**864.986.214**	**1.465.640.596**	**1.820.244.134**
Total Consumer Electronics	**837.555.978**	**736.649.395**	**890.169.624**	**921.778.005**	**1.517.668.540**	**1.908.326.713**

	2004	2005	2006		2007**
CRT TV (screen diagonal<42 cm)	341.919.266	255.832.067	244.945.696	CRT TV (screen diagonal<42 cm)	153.098.427
CRT TV (42 cm<screen diagonal <52 cm)	237.410.756	137.217.447	140.764.025	CRT TV (42 cm<screen diagonal <52 cm)	
CRT TV (52 cm<screen diagonal <72 cm)	932.144.428	603.153.852	474.299.719	CRT TV (52 cm<screen diagonal <72 cm)	158.795.809
CRT TV (screen diagonal >72 cm)	128.984.957	110.263.774	119.259.210	CRT TV (screen diagonal >72 cm)	9.799.965
CRT TV Subtotal	**1.640.459.407**	**1.106.467.140**	**979.268.650**	CRT TV Subtotal	**321.694.201**
CRT TV Other	290.330.704	180.491.360	103.952.241	CRT TV Other***	
CRT TV Total	1.930.790.111	1.286.958.500	1.083.220.891	CRT TV Total	321.694.201
Combined TV	182.193.457	141.802.774	110.611.827	Plasma TV***	
Video tuners with screen and others	501.406.649	1.336.441.842	1.206.770.624	LCD TV	1.667.533.396
Other TV	66.066.625	168.745.879	21.250.296	Other TV	36.162.410
TV TOTAL*	**2.680.456.842**	**2.933.948.995**	**2.421.853.638**	TV TOTAL*	**2.025.390.007**
Total Consumer Electronics	**2.848.708.417**	**3.130.934.434**	**2.544.743.822**	Total Consumer Electronics	**2.144.759.796**

* The customs tariff position number "85-28" includes besides television sets, teleprojectors, color video projectors, and satellite television receivers. Since the latter constitutes only a small segment within the category, they were included in "Other TV" and hence 'TV TOTAL".

** The 2007 figures are provisional.

*** According to the legislation pertaining to data confidentiality, certain figures were not released.

Source: TÜİK, 2008b.

Declining TV prices is a well-known phenomenon around the world, and this trend can easily be seen in the mean unit prices of Turkish TV exports and imports across the years.

Table 6: Mean Unit Prices of TV Export Items, 1998-2003

EXPORT ITEM	Amount (Units)	Value (USD)	Mean Unit Price (USD)	Amount (Units)	Value (USD)	Mean Unit Price (USD)	Amount (Units)	Value (USD)	Mean Unit Price (USD)
	1998	**1998**	**1998**	**1999**	**1999**	**1999**	**2000**	**2000**	**2000**
CRT TV (screen diagonal<42 cm)	1.952.360	204.478.796	104,73	2.274.311	197.760.623	86,95	2.732.193	224.046.150	82,00
CRT TV (42 cm<screen diagonal <52 cm)	946.468	129.532.497	136,86	1.125.803	127.159.027	112,95	1.511.677	151.183.617	100,01
CRT TV (52 cm<screen diagonal <72 cm)	1.909.079	387.768.643	203,12	1.921.015	324.979.285	169,17	2.803.359	413.146.267	147,38
CRT TV (screen diagonal > 72 cm)	26.119	13.018.676	498,44	46.640	16.103.822	345,28	104.185	27.250.205	261,56
CRT TV Subtotal	**4.834.026**	**734.798.612**	152,01	**5.367.769**	**666.002.757**	124,07	**7.151.414**	**815.626.239**	114,05
CRT TV Other	1.301	329.660	253,39	12.755	4.727.409	370,63	59.720	20.550.096	344,11
CRT TV Total	**4.835.327**	735.128.272	152,03	**5.380.524**	670.730.166	124,66	**7.211.134**	836.176.335	115,96
Combined TV	4.731	174.580	36,90	1.851	183.515	99,14	1.760	266.322	151,32
Video tuners with screen, etc.	392	189.154	482,54	2.662	299.668	112,57	2.740	320.087	116,82
Other TV	5.346	441.782	82,64	40.697	3.680.932	90,45	71.689	3.096.182	43,19
TV TOTAL*	**4.845.796**	**735.933.788**	151,87	**5.425.734**	**674.894.281**	124,39	**7.287.323**	**839.858.926**	115,25
Total Consumer Electronics	**4.916.955**	**837.555.978**		**5.514.070**	**736.649.395**		**7.392.675**	**890.169.624**	

EXPORT ITEM	Amount (Units)	Value (USD)	Mean Unit Price (USD)	Amount (Units)	Value (USD)	Mean Unit Price(USD)	Amount (Units)	Value (USD)	Mean Unit Price (USD)
	2001	**2001**	**2001**	**2002**	**2002**	**2002**	**2003**	**2003**	**2003**
CRT TV (screen diagonal<42 cm)	2.169.596	172.871.519	79,68	3.586.782	259.705.693	72,41	4.167.003	307.378.741	73,76
CRT TV (42 cm<screen diagonal <52 cm)	1.253.942	124.153.239	99,01	1.888.235	173.710.558	92,00	1.973.792	202.483.561	102,59
CRT TV (52 cm<screen diagonal <72 cm)	3.213.177	480.970.619	149,69	5.505.734	826.486.874	150,11	6.167.973	898.833.102	145,73
CRT TV (screen diagonal >72 cm)	172.536	46.522.459	269,64	257.177	74.721.655	290,55	284.104	88.109.661	310,13
CRT TV Subtotal	**6.809.251**	**824.517.836**	121,09	**11.237.928**	**1.334.624.780**	118,76	**12.592.872**	**1.496.805.065**	118,86
CRT TV Other	94.723	35.657.764	376,44	175.490	69.629.489	396,77	468.267	142.366.616	304,03
CRT TV TOTAL	**6.903.974**	860.175.600	124,59	**11.413.418**	1.404.254.269	123,04	**13.061.139**	1.639.171.681	125,50
COMBINED TV	9.894	2.067.893	209,00	238.841	52.686.504	220,59	709.321	103.493.453	145,90
VIDEO TUNERS WITH SCREEN and others	35	51.751	1.478,60	4.231	1.365.788	322,81	887.807	22.052.121	24,84
Other TV	64.707	2.690.970	41,59	69.799	7.334.035	105,07	178.430	55.526.879	311,20
TV Total*	**6.978.610**	**864.986.214**	123,95	**11.726.289**	**1.465.640.596**	124,99	**14.836.697**	**1.820.244.134**	122,69
Total Consumer Electronics	**7.148.101**	**921.778.005**		**35.096.933**	**1.517.668.540**		**71.829.001**	**1.908.326.713**	

* The customs tariff position number “85-28” includes besides television sets, teleprojectors, color video projectors, and satellite television receivers. Since the latter constitutes only a small segment within the category, they were included in “Other TV” and hence ‘TV TOTAL”.

** The 2007 figures are provisional.

*** According to the legislation pertaining to data confidentiality, certain figures were not released.

Source: TÜİK, 2008b.

Table 7: Mean Unit Prices of TV Export Items, 2004-2007

EXPORT ITEM	Amount (Units)	Value (USD)	Mean Unit Price (USD)	Amount (Units)	Value (USD)	Mean Unit Price (USD)	Amount (Units)	Value (USD)	Mean Unit Price (USD)
	2004	**2004**	**2004**	**2005**	**2005**	**2005**	**2006**	**2006**	**2006**
CRT TV (screen diagonal<42 cm)	4.880.936	341.919.266	70,05	4.212.850	255.832.067	60,73	4.124.177	244.945.696	59,39
CRT TV (42 cm<screen diagonal <52 cm)	2.259.137	237.410.756	105,09	1.676.881	137.217.447	81,83	1.749.455	140.764.025	80,46
CRT TV (52 cm<screen diagonal <72 cm)	6.439.098	932.144.428	144,76	5.322.690	603.153.852	113,32	4.303.697	474.299.719	110,21
CRT TV (screen diagonal >72 cm)	483.329	128.984.957	266,87	528.360	110.263.774	208,69	649.882	119.259.210	183,51
CRT TV Subtotal	**14.062.500**	**1.640.459.407**	116,65	**11.740.781**	**1.106.467.140**	94,24	**10.827.211**	**979.268.650**	90,45
CRT TV Other	1.095.520	290.330.704	265,02	822.390	180.491.360	219,47	486.979	103.952.241	213,46
CRT TV Total	**15.158.020**	1.930.790.111	127,38	**12.563.171**	1.286.958.500	102,44	**11.314.190**	1.083.220.891	95,74
Combined TV	2.060.656	182.193.457	88,42	1.238.159	141.802.774	114,53	1.007.722	110.611.827	109,76
Video tuners with screen, etc.	791.076	501.406.649	633,83	2.347.339	1.336.441.842	569,34	1.899.632	1.206.770.624	635,27
Other TV	573.677	66.066.625	115,16	793.860	168.745.879	212,56	458.806	21.250.296	46,32
TV TOTAL*	**18.583.429**	**2.680.456.842**	144,24	**16.942.529**	**2.933.948.995**	173,17	**14.680.350**	**2.421.853.638**	164,97
Total Consumer Electronics	**70.388.814**	**2.848.708.417**		**65.398.984**	**3.130.934.434**		**21.204.977**	**2.544.743.822**	

Export Item	Amount (Units)	Value (USD)	Mean Unit Price (USD)
	2007**	**2007****	**2007****
CRT TV (screen diagonal<42 cm)	2.473.404	153.098.427	61,90
CRT TV (42 cm<screen diagonal <52 cm)			
CRT TV (52 cm<screen diagonal <72 cm)	1.125.762	158.795.809	141,06
CRT TV (screen diagonal >72 cm)	48.448	9.799.965	202,28
CRT TV Subtotal	**3.647.614**	**321.694.201**	88,19
CRT TV Other***			
CRT TV Total	**3.647.614**	321.694.201	88,19
Plasma TV***			
LCD TV	4.331.682	1.667.533.396	384,96
Other TV	729.209	36.162.410	49,59
TV TOTAL*	**8.708.505**	**2.025.390.007**	232,58
Total Consumer Electronics	**45.103.024,00**	**2.144.759.796**	
***** The customs tariff position number “85-28” includes besides television sets, teleprojectors, color video projectors, and satellite television receivers. Since the latter constitutes only a small segment within the category, they were included in “Other TV” and hence ‘TV TOTAL”.			
****** The 2007 figures are provisional.			
******* According to the legislation pertaining to data confidentiality, certain figures were not released.			
Source: TÜİK, 2008b.			

Color televisions made in Turkey have a good reputation among European consumers with respect to price and quality. Turkish manufacturers follow European and international standards and norms, and since 2002, production carries the “CE” mark (Taylan and Sarı, 2008: 3).

The European Union is Turkey's biggest trading partner; in 2006, Turkey received 4.3% of all EU exports, and 3.1% of all EU imports that year were accounted for by Turkey (Eurostat, 2007: 57). In 2005, Turkey's global exports were valued at 58.8 billion Euros, 56% of which were destined to the EU-27; and that same year a share of 45% of imports to Turkey was accounted for by the EU-27.

Of total television exports, 91% are headed to ten member states of the European Union (DTM, 2006: 6). For television sets, the UK has been the biggest export market for the past two years, followed by Germany, Spain, France, the Netherlands, and Italy. Of total television exports for 2007, for instance, the UK accounted for 32%, Germany for 20%, Spain for 10%, France for 9%, the Netherlands for 5%, and Italy for 4% (DTM, 2006: 8).

Today Turkish producers command 25% of the European color TV market (Önkol, 2008), and Turkey appears to be the television factory of Europe. The second biggest market for color TVs after the European Union is the Russian Federation and the Turkic republics (Çakır, 2004).

Television Imports

Electronic components production in Turkey is limited, and especially some of the components used in the manufacturing of television sets are largely imported (Çakır, 2004: 16). It is sometimes more cost-effective for Turkish manufacturers to import finished goods, especially from China, South Korea, and Hong Kong (ibid.). Turkey's television imports over the past ten years, therefore, follow a generally increasing trend, with occasional dips such as in the recession year of 2001 (Please see Table 8).

Between 2005 and 2006, for instance, TV imports rose by 22% in value, from US$221,869,314 to US$270,773,182. Television sets is an area, however, where Turkey has a favorable trade balance. Between 2002 and 2005, the export/import ratio has exceeded 1,300% (reaching its peak of 1,612% in 2002).

Table 8: Turkey's Television Exports and Imports, 1998-2007

YEAR	EXPORTS	IMPORTS	EXPORT/IMPORT RATIO
	(US Dollars)	(US Dollars)	%
1998	735.933.788	93.254.438	789,17
1999	674.894.281	113.123.599	596,60
2000	839.858.926	178.476.868	470,57
2001	864.986.214	97.090.684	890,91
2002	1.465.640.596	90.920.719	1.612,00
2003	1.820.244.134	119.425.348	1.524,17
2004	2.680.456.842	193.849.072	1.382,75
2005	2.933.948.995	221.869.314	1.322,38
2006	2.421.853.638	270.773.182	894,42
2007	2.025.390.007[a]	760.191.838[a]	266,43[a]

[a]The figures for 2007 are provisional, and according to the legislation pertaining to data confidentiality, data for some of the categories have not been released.
Source: TÜİK (Turkish Statistics Institute), 2008b.

The consumer shift away from cathode-ray televisions towards LCD and plasma televisions can be clearly seen from the import figures of recent years (Please see Table 9). While the share of CRT televisions in total television imports was 41% in 1998, by 2006 that figure has fallen to 9% in unit terms. In dollar terms, that corresponds to a decline from 69% to 6%.

Table 9: Turkey's Television Imports, 1998-2007 (Units)

	1998	1999	2000	2001	2002	2003
CRT TV (screen diagonal<42 cm)	118.008	230.252	193.538	64.252	118.496	228.850
CRT TV (42 cm<screen diagonal <52 cm)	83.938	67.039	68.029	23.928	16.831	10.591
CRT TV (52 cm<screen diagonal <72 cm)	97.719	137.014	186.605	50.948	127.583	112.361
CRT TV (screen diagonal >72 cm)	9.953	10.501	38.514	25.696	45.675	57.180
CRT TV Subtotal	**309.618**	**444.806**	**486.686**	**164.824**	**308.585**	**408.982**
CRT TV Other	2.894	2.036	8.545	3.274	5.015	7.131
CRT TV Total	**312.512**	**446.842**	**495.231**	**168.098**	**313.600**	**416.113**
Combined TV	2.757	2.152	5.239	710	4.585	5.160
Video tuners with screen and others	1.500	603	3.069	5.203	4.613	9.297
Other TV	440.270	607.971	873.243	486.149	380.596	779.093
TV TOTAL*	**757.039**	**1.057.568**	**1.376.782**	**660.160**	**703.394**	**1.209.663**
Total Consumer Electronics	**8.253.458**	**8.347.346**	**10.582.498**	**4.793.957**	**88.696.142**	**89.175.735**

	2004	2005	2006		2007**
CRT TV (screen diagonal<42 cm)	93.205	22.840	4.185	CRT TV (screen diagonal<42 cm)	8.239
CRT TV (42 cm<screen diago-nal <52 cm)	6.988	4.060	1.930	CRT TV (42 cm<screen diagonal <52 cm)	98
CRT TV (52 cm<screen diago-nal <72 cm)	70.812	65.226	29.546	CRT TV (52 cm<screen diagonal <72 cm)	17.321
CRT TV (screen diagonal >72 cm)	86.205	56.574	21.867	CRT TV (screen diagonal >72 cm)	6.984
CRT TV Subtotal	**257.210**	**148.700**	**57.528**	CRT TV Subtotal	**32.642**
CRT TV Other	22.981	17.442	6.926	CRT TV Other***	96
CRT TV Total	**280.191**	**166.142**	**64.454**	CRT TV Total	**32.738**
Combined TV	4.068	3.912	3.381	Plasma TV***	49.577
Video tuners with screen and others	24.051	67.968	140.890	LCD TV	266.647
Other TV	2.035.953	1.368.152	476.109	Other TV	3.278.167
TV TOTAL*	**2.344.263**	**1.606.174**	**684.834**	TV TOTAL*	**3.627.129**
Total Consumer Electronics	**164.265.132**	**119.422.618**	**85.504.889**	Total Consumer Electronics	**601.478.514**

* The customs tariff position number "85-28" includes besides television sets, teleprojectors, color video projectors, and satellite television receivers. Since the latter constitutes only a small segment within the category, they were included in "Other TV" and hence 'TV TOTAL".

** The 2007 figures are provisional.

*** According to the legislation pertaining to data confidentiality, certain figures were not released.

Source: TÜİK, 2008b.

In television set imports, as in exports, European Union countries top the list. They are followed by Japan and other countries in the Far East.

Table 10: Turkey's Television Imports, 1998-2007 (US Dollars)

	1998	1999	2000	2001	2002	2003
CRT TV (screen diagonal<42 cm)	14.930.651	16.384.207	13.983.065	4.765.841	5.170.565	8.844.754
CRT TV (42 cm<screen diagonal <52 cm)	15.933.906	10.216.121	7.910.909	2.525.023	1.513.993	1.076.977
CRT TV (52 cm<screen diagonal <72 cm)	26.830.377	31.042.533	33.744.650	8.951.770	18.866.235	12.430.314
CRT TV (screen diagonal >72 cm)	4.913.089	4.809.236	16.528.004	10.311.331	17.285.061	18.385.039
CRT TV Subtotal	**62.608.023**	**62.452.097**	**72.166.628**	**26.553.965**	**42.835.854**	**40.737.084**
CRT TV Other	2.091.768	1.550.825	5.626.636	3.250.298	3.900.127	3.894.089
CRT TV Total	**64.699.791**	**64.002.922**	**77.793.264**	**29.804.263**	**46.735.981**	**44.631.173**
Combined TV	1.275.659	2.026.860	586.643	237.971	1.094.724	1.087.717
Video tuners with screen and others	606.870	738.191	1.787.472	838.087	3.248.612	4.748.184
Other TV	26.672.118	46.355.626	98.309.489	66.210.363	39.841.402	68.958.274
TV TOTAL*	**93.254.438**	**113.123.599**	**178.476.868**	**97.090.684**	**90.920.719**	**119.425.348**
Total Consumer Electronics	**727.801.585**	**820.586.292**	**1.104.333.968**	**660.796.026**	**713.971.436**	**974.117.243**

	2004	2005	2006		2007**
CRT TV (screen diagonal<42 cm)	4.414.435	1.751.570	531.198	CRT TV (screen diagonal<42 cm)	866.122
CRT TV (42 cm<screen diagonal <52 cm)	1.741.538	750.539	917.613	CRT TV (42 cm<screen diagonal <52 cm)	26.927
CRT TV (52 cm<screen diagonal <72 cm)	10.187.620	12.523.501	5.561.619	CRT TV (52 cm<screen diagonal <72 cm)	4.466.837
CRT TV (screen diagonal >72 cm)	25.558.285	20.786.425	7.800.834	CRT TV (screen diagonal >72 cm)	2.063.233
CRT TV Subtotal	**41.901.878**	**35.812.035**	**14.811.264**	CRT TV Subtotal	**7.423.119**
CRT TV Other	16.360.986	13.155.183	2.406.060	CRT TV Other***	58.945
CRT TV Total	**58.262.864**	**48.967.218**	**17.217.324**	CRT TV Total	**7.482.064**
Combined TV	1.165.243	837.705	500.515	Plasma TV***	56.545.213
Video tuners with screen and others	11.472.755	43.600.421	119.337.130	LCD TV	204.778.807
Other TV	122.948.210	128.463.970	133.718.213	Other TV	491.385.754
TV TOTAL*	**193.849.072**	**221.869.314**	**270.773.182**	TV TOTAL*	**760.191.838**
Total Consumer Electronics	**1.411.252.891**	**1.748.426.402**	**1.684.235.771**	Total Consumer Electronics	**2.216.683.435**

* The customs tariff position number "85-28" includes besides television sets, teleprojectors, color video projectors, and satellite television receivers. Since the latter constitutes only a small segment within the category, they were included in "Other TV" and hence 'TV TOTAL".

** The 2007 figures are provisional.

*** According to the legislation pertaining to data confidentiality, certain figures were not released.

Source: TÜİK, 2008b.

Table 11: Mean Unit Prices of TV Import Items, 1998-2003

IMPORT ITEM	Amount (Units)	Value (USD)	Mean Unit Price(USD)	Amount (Units)	Value (USD)	Mean Unit Price(USD)	Amount (Units)	Value (USD)	Mean Unit Price(USD)
	1998	**1998**	**1998**	**1999**	**1999**	**1999**	**2000**	**2000**	**2000**
CRT TV (screen diagonal<42 cm)	118.008	14.930.651	126,52	230.252	16.384.207	71,16	193.538	13.983.065	72,25
CRT TV (42 cm<screen diagonal <52 cm)	83.938	15.933.906	189,83	67.039	10.216.121	152,39	68.029	7.910.909	116,29
CRT TV (52 cm<screen diagonal <72 cm)	97.719	26.830.377	274,57	137.014	31.042.533	226,56	186.605	33.744.650	180,83
CRT TV (screen diagonal >72 cm)	9.953	4.913.089	493,63	10.501	4.809.236	457,98	38.514	16.528.004	429,14
CRT TV Subtotal	**309.618**	**62.608.023**	202,21	**444.806**	**62.452.097**	140,40	**486.686**	**72.166.628**	148,28
CRT TV Other	2.894	2.091.768	722,79	2.036	1.550.825	761,70	8.545	5.626.636	658,47
CRT TV Total	**312.512**	**64.699.791**	207,03	**446.842**	**64.002.922**	143,23	**495.231**	**77.793.264**	157,08
Combined TV	2.757	1.275.659	462,70	2.152	2.026.860	941,85	5.239	586.643	111,98
Video tuners with screen, etc.	1.500	606.870	404,58	603	738.191	1.224,20	3.069	1.787.472	582,43
Other TV	440.270	26.672.118	60,58	607.971	46.355.626	76,25	873.243	98.309.489	112,58
TV TOTAL*	**757.039**	**93.254.438**	123,18	**1.057.568**	**113.123.599**	106,97	**1.376.782**	**178.476.868**	129,63
Total Consumer Electronics	**8.253.458**	**727.801.585**		**8.347.346**	**820.586.292**		**10.582.498**	**1.104.333.968**	

IMPORT ITEM	Amount (Units)	Value (USD)	Mean Unit Price(USD)	Amount (Units)	Value (USD)	Mean Unit Price(USD)	Amount (Units)	Value (USD)	Mean Unit Price(USD)
	2001	**2001**	**2001**	**2002**	**2002**	**2002**	**2003**	**2003**	**2003**
CRT TV (screen diagonal<42 cm)	64.252	4.765.841	74,17	118.496	5.170.565	43,63	228.850	8.844.754	38,65
CRT TV (42 cm<screen diagonal <52 cm)	23.928	2.525.023	105,53	16.831	1.513.993	89,95	10.591	1.076.977	101,69
CRT TV (52 cm<screen diagonal <72 cm)	50.948	8.951.770	175,70	127.583	18.866.235	147,87	112.361	12.430.314	110,63
CRT TV (screen diagonal >72 cm)	25.696	10.311.331	401,28	45.675	17.285.061	378,44	57.180	18.385.039	321,53
CRT TV Subtotal	**164.824**	**26.553.965**	161,10	**308.585**	**42.835.854**	138,81	**408.982**	**40.737.084**	99,61
CRT TV Other	3.274	3.250.298	992,76	5.015	3.900.127	777,69	7.131	3.894.089	546,08
CRT TV TOTAL	**168.098**	**29.804.263**	177,30	**313.600**	**46.735.981**	149,03	**416.113**	**44.631.173**	107,26
COMBINED TV	710	237.971	335,17	4.585	1.094.724	238,76	5.160	1.087.717	210,80
VIDEO TUN-ERS WITH SCREEN and others	5.203	838.087	161,08	4.613	3.248.612	704,23	9.297	4.748.184	510,72
Other TV	486.149	66.210.363	136,19	380.596	39.841.402	104,68	779.093	68.958.274	88,51
TV Total*	**660.160**	**97.090.684**	147,07	**703.394**	**90.920.719**	129,26	**1.209.663**	**119.425.348**	98,73
Total Consumer Electronics	**4.793.957**	**660.796.026**		**88.696.142**	**713.971.436**		**89.175.735**	**974.117.243**	

* The customs tariff position number “85-28” includes besides television sets, teleprojectors, color video projectors, and satellite television receivers. Since the latter constitutes only a small segment within the category, they were included in “Other TV” and hence ‘TV TOTAL”.

** The 2007 figures are provisional.

*** According to the legislation pertaining to data confidentiality, certain figures were not released.

Source: TÜİK, 2008b.

Table 12: Mean Unit Prices of TV Import Items, 2004-2007

IMPORT ITEM	Amount (Units)	Value (USD)	Mean Unit Price(USD)	Amount (Units)	Value (USD)	Mean Unit Price (USD)	Amount (Units)	Value (USD)	Mean Unit Price(USD)
	2004	**2004**	**2004**	**2005**	**2005**	**2005**	**2006**	**2006**	**2006**
CRT TV (screen diagonal<42 cm)	93.205	4.414.435	47,36	22.840	1.751.570	76,69	4.185	531.198	126,93
CRT TV (42 cm<screen diagonal <52 cm)	6.988	1.741.538	249,22	4.060	750.539	184,86	1.930	917.613	475,45
CRT TV (52 cm<screen diagonal <72 cm)	70.812	10.187.620	143,87	65.226	12.523.501	192,00	29.546	5.561.619	188,24
CRT TV (screen diagonal >72 cm)	86.205	25.558.285	296,48	56.574	20.786.425	367,42	21.867	7.800.834	356,74
CRT TV Subtotal	**257.210**	**41.901.878**	162,91	**148.700**	**35.812.035**	240,83	**57.528**	**14.811.264**	257,46
CRT TV Other	22.981	16.360.986	711,94	17.442	13.155.183	754,22	6.926	2.406.060	347,40
CRT TV Total	**280.191**	**58.262.864**	207,94	**166.142**	**48.967.218**	294,73	**64.454**	**17.217.324**	267,13
Combined TV	4.068	1.165.243	286,44	3.912	837.705	214,14	3.381	500.515	148,04
Video tuners with screen, etc.	24.051	11.472.755	477,02	67.968	43.600.421	641,48	140.890	119.337.130	847,02
Other TV	2.035.953	122.948.210	60,39	1.368.152	128.463.970	93,90	476.109	133.718.213	280,86
TV TOTAL*	**2.344.263**	**193.849.072**	82,69	**1.606.174**	**221.869.314**	138,14	**684.834**	**270.773.182**	395,39
Total Consumer Electronics	**164.265.132**	**1.411.252.891**		**119.422.618**	**1.748.426.402**		**85.504.889**	**1.684.235.771**	

Import Item	Amount (Units)	Value (USD)	Mean Unit Price (USD)
	2007**	**2007****	**2007****
CRT TV (screen diagonal<42 cm)	8.239	866.122	105,12
CRT TV (42 cm<screen diagonal <52 cm)	98	26.927	274,77
CRT TV (52 cm<screen diagonal <72 cm)	17.321	4.466.837	257,89
CRT TV (screen diagonal >72 cm)	6.984	2.063.233	295,42
CRT TV Subtotal	**32.642**	**7.423.119**	227,41
CRT TV Other***	96	58.945	614,01
CRT TV Total	**32.738**	**7.482.064**	228,54
Plasma TV***	49.577	56.545.213	1.140,55
LCD TV	266.647	204.778.807	767,98
Other TV	3.278.167	491.385.754	149,90
TV TOTAL*	**3.627.129**	**760.191.838**	209,59
Total Consumer Electronics	**601.478.514**	**2.216.683.435**	

* The customs tariff position number “85-28” includes besides television sets, teleprojectors, color video projectors, and satellite television receivers. Since the latter constitutes only a small segment within the category, they were included in “Other TV” and hence ‘TV TOTAL”.

** The 2007 figures are provisional.

*** According to the legislation pertaining to data confidentiality, certain figures were not released.

Source: TÜİK, 2008b.

The Turkish Domestic Market for Television Sets

The volume of home market sales for television sets is estimated to be around 2.5 million sets for 2007 including both cathode-ray tube televisions and LCD televisions, which together account for around 413 million US dollars (Turkish Ministry of Industry and Trade, 2008).

The cathode-ray tube television market in Turkey decreases by 50% yearly, and the LCD market grows by 100% (ibid.). A recent consumer research indicates that the growth trend for LCD and plasma televisions is likely to continue unabated. In the country-wide study conducted by GfK Turkey ("Türklerin," 2008), 23% of the consumers had plasma TV within the top five items they intended to buy; the comparable figure for LCD TV was 14%.

As television set penetration in Turkey is estimated at 97% for 2006 (World Bank, 2008), it can be inferred that demand for television sets is largely driven by renewal and replacement purchases. Television set lifespan is considered to be 12 years on average (Çakýr, 2004: 11), but, renewal demand for new models with added features before the old TV set completes its lifespan is estimated to constitute about one-third of all renewal purchases per year, i.e., those spurred by new home purchases, opening up of a new business, and purchases of secondary sets in addition to the primary one (Çakir, 2004: 11).

The main brands in the home market are Beko with a 36% share, Vestel, with a 35% share, and Profilo with a 9% share for 2007 (Turkish Ministry of Industry and Trade, 2008). Vestel, Beko and Profilo also account for 95% of the current production capacity for television manufacturing (ibid.). Around 20% of home market sales are composed of imported brands (ibid.), which include Philips, Pioneer, Panasonic, Samsung, Sony, LG, and Toshiba (according to information obtained from various retailers). When it comes to LCD televisions, around 50% are imported. Of the 678.000 LCD TVs sold in Turkey in 2007, imported brands accounted for 44% (or, 300,000 sets) (Turkish Ministry of Industry and Trade).

Table 13: Major Manufacturers of Television Sets in Turkey

MAIN COMPANIES IN TURKEY'S CONSUMER ELECTRONICS INDUSTRY

	Proportion of exports in sales* (%)	Sales from production net* (YTL)	Export amount* ($)	Total TV sales (units) **	Total TV exports (units)**	Home market TV sales (units)***	Company's share in the Turkish market for TV sales volume[a]
VESTEL	89%	2.395.395.531	1.688.850.000	8.776.324	7.372.112	1.404.212	35%
BEKO ELEKTRONIK (now GRUNDIG ELEKTRONIK)	73%	1.063.270.906	557.947.000	3.435.707	2.508.066	927.641	36%
PROFILO TELRA	41%	169.475.191	69.376.000				9%

* Istanbul Chamber of Industry (2008).

** Data is from the companies' annual reports for 2007.

*** Computed from the figures given in the annual reports.

[a] Turkish Ministry of Industry and Trade (2008).

It can be seen from the above figures that Vestel and Beko together account for around 90% of total TV unit exports for 2007.

Vestel is the top manufacturer of consumer electronics products; for instance, 67% of all televisions produced in Turkey today are manufactured by Vestel (Önkol, 2008). Vestel Electronics joined the Zorlu Group of Companies in 1994. The company manufactures and sells CRT TVs, TFT-LCDs, and monitors. In 2007, the company's market share in Europe was 21%; in CRT TVs, Vestel is by far the leader in Europe, with 50% of the market, and in LCD TVs, it has a market share of 11% (Vestel, 2008: 21). The company's central office is located in Istanbul, and the production plant is in Manisa, Turkey. The company is an OEM/ODM in the European Union, and in Turkey and neighboring countries, it markets its televisions under the Vestel brand name (Vestel, 2008: 20).

The second biggest manufacturer is Arçelik, considered the flagship of Turkey's biggest conglomerate Koç Group of Companies. Arçelik manufactures and sells its televisions under the brand names of Arçelik and Beko. Beko is the electronics arm of Arçelik, and following the recent acquisition of the prestigious German consumer electronics company Grundig in 2007, Beko Elektronik was renamed Grundig Elektronik, which was subsumed entirely under Arçelik in February 2009 (newspaper reports of February 28, 2009).

Profilo, the third biggest manufacturer, began production in 1972 with the manufacturing of black-and-white television sets. The company manufactures Philips-branded television sets in addition to its own brand and Telefunken.

Opportunities and Challenges for the Industry

The biggest challenge facing Turkey's television set industry today appears to be the need for transition to LCD and plasma TV manufacturing. Eight out of ten television sets sold in Europe today are LCDs (Turkish Ministry of Industry and Trade, 2008), and the shift in consumer trends towards LCD and plasma televisions forces Turkish television producers to invest in new technologies (Tolga and Akýn, 2008). For now, Turkish manufacturers produce LCD TVs using imported parts and run into difficulties obtaining LCD panels (Turkish Ministry of Industry and Trade, 2008).

The research and development costs required by LCD and plasma television set manufacturing are high, and Turkish manufacturers' total R&D spending is only a fraction of that of their Far Eastern rivals (Please see Table 14).

Table 14: Television Set Manufacturers' Research and Development Spending, 2007

Company	**R&D Spending (Million US dollars)**
Samsung	4,600
LG	4,000
Daewoo	3,000
Hyundai	2,000
Turkey	40
Source: Turkish Ministry of Industry and Trade, 2008.	

As it is, the television sets manufactured in Turkey are taxed at 55% (VAT: 18%, stamp tax 16%, special consumption tax 7%, customs duty 14%) (Önkol, 2008). With keen price competition, manufacturers complain of low profit margins and indicate the need for government support in R&D (ibid.).

Some government support came in 2008 in the form of a law to support research and development activities of industry (Legislation No. 5746, passed on Feb. 28, 2008). According to the law, investors will benefit until the year 2024 from a variety of incentives and government support irrespective of their area of activity.

Turkey's television set industry claims to have a highly qualified workforce of 12,300. The Turkish Ministry of Industry and Trade believes that over twenty years of export experience to Europe has resulted in a solid brand management capability and the establishment of a strong distribution and after-sales service network (Turkish Ministry of Industry and Trade, 2008). We have no independent evidence to support this claim.

A research report concluded that Turkish manufacturers also have the capability to manufacture to short schedules. In fact, some of the manufacturers in the industry are held up as examples of flexible manufacturing (Ateş, 2006: 137).

Some of the major television manufacturers in the international arena are forming strategic alliances in Turkey, and there is some indication that a few are moving some of their branded manufacturing operations to Turkey. Since 2004, for instance, Sony televisions are sold at Arçelik retail outlets, and in December of 2008, Grundig Elektronik, an Arçelik subsidiary which received a Sony OEM-Green Partner certificate, will be manufacturing Sony LCD televisions (Grundig Elektronik, 2008).

Although the present export value of the Turkish television industry is not high in global terms, it is possible that with significant R&D investments (which the new legislation is likely to stimulate), engineering quality, and broad product range, the industry may in a number of years' time substantially increase its share of the global market. We make some further comment on global issues below.

DISCUSSION AND CONCLUSION

In terms of the validity of the research evidence presented in this preliminary study, we are confident that it is statistically valid. Moreover, the data is longitudinal unlike immediate survey data and therefore presents a useful historical perspective on Turkish international development to the year 2008. We are also confident that we have been able to separate the factual evidence from the judgements of opinion formers in the industry.

However, there are three problems with the data. First, it does not take into account the major world downturn in the global economy that occurred in 2009 and possibly beyond this time. The early industry evidence suggests that this is having an impact on consumer electronics worldwide, including television set manufacture. It may therefore be that the picture presented in this report will change significantly over the year 2009. We will therefore re-visit the data at a later stage and adjust as necessary.

The second problem with the data is that it is eclectic and non-selective. It makes no attempt to develop hypotheses based on international development theories and then test them using the data. This report essentially summarizes the current information on the Turkish television set industry with regard to international development. Hence, it is possible that it includes information that will subsequently prove redundant. However, as a first step, we have judged it prudent to present a full picture of the data set. When we develop the research further, we would anticipate starting from a stronger basis in international trade research hypotheses.

The third problem with the data is that it provides only limited information on the reasons why the Turkish industry has developed along its current trajectory. For example, we know that exports have primarily been targeted at Europe but our only evidence on the reasons for this are, at best, anecdotal. The next stage of our research will address this area. But, as stated in the opening paragraphs, this report represents a preliminary study and it remains valid as a picture of the situation to year 2008.

In conclusion, this is only a preliminary examination of the Turkish television set market. The questions we will be exploring in further research will include the reasons why Turkish exports are mostly headed to the European Union within the context of international expansion strategies. Are there elements of cultural distance, administrative distance, economic distance, and in some instances, geographic distance, that are keeping Turkish manufacturers from expanding more into other markets beyond the EU? Why have Turkish exporters chosen particular strategies to export their goods? The answers may have critical implications for Turkish exporters in a variety of markets.

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