Chapter VII

Summary and Conclusions, Suggestions, Recommendations and Directions for Future Research
CHAPTER VII

SUMMARY AND CONCLUSIONS, SUGGESTIONS, RECOMMENDATIONS AND DIRECTIONS FOR FUTURE RESEARCH

7.1. Introduction

The present study attempts to analyse market share, its determinants, cross and advertising elasticities, advertising and market share dynamics and durability of advertising effect on sales in selected Indian consumer durable products. The study covers the period 1991-2006. The sample includes the consumer durable products such as Colour Television, Refrigerator, Washing Machine, and Air Conditioner which are popular products in Indian consumer durables market. The companies which are in the market for a reasonable period are considered for the purpose of analysis.

7.2. Research Questions

1. Who are the major players in the Indian consumer durable products market and what are their market shares?
2. What are the inter and intra company variations in market share over a period of time?
3. What are the price elasticities of market share in the selected products?
4. What are the cross elasticities of market share in the selected products?
5. What are the advertising elasticities of market share in the selected products?
6. What are the determinants of market share?
7. What is the nature and extent of relationship between market share and profitability?
8. What are the advertising and market share dynamics?
9. What is the durability of advertising effect on sales?
10. What are the suggestions and recommendations for policy formulation?

With the above questions in the background, the study focuses on market share analysis of the selected Indian consumer durable products with reference to the following objectives:
7.3. Objectives of the Study

The broad objectives of the study are

1. To review the literature and theoretical framework relating to various aspects of market share analyses,
2. To study the market shares held by the Indian companies in the selected consumer durable goods market during the period of study,
3. To study the inter and intra company market share variations,
4. To estimate price elasticities of market share,
5. To estimate cross elasticities,
6. To estimate advertising elasticities of market share,
7. To identify the determinants of market share and
8. To examine the relationship between market share and profitability.
9. To analyse the advertising and market share dynamics
10. To examine the durability of advertising effect on sales.

7.4. Summary And Conclusions

7.4.1. Market Share Analysis

7.4.1.1 Growth Trends in Sales


Table 7.1 presents the comparative analysis of product wise growth trends in sales during 1991-2006.

The overall growth rate of industry sales of selected consumer durables during the period under review was 15.50 per cent. Product wise highest growth rate of 19.80 per cent was recorded by Air Conditioner followed by Washing Machine (19.25 per cent). Refrigerator and Colour TV have recorded identical growth rates of around 11 per cent each.

The overall growth rate of sales of the reference companies (domestic brands) was 11.56 per cent.
The gap between industry sales and sales of the domestic brands was highest in Air conditioner (4.90) and 4.83 in Refrigerator, which shows the presence of foreign brands with higher intensity in these product groups.

**Table 7.1**


<table>
<thead>
<tr>
<th>Selected consumer durables products</th>
<th>Growth Rate of Sales</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Aggregate sales of the reference companies</td>
<td>Industry Sales</td>
</tr>
<tr>
<td>Colour Television</td>
<td>8.44</td>
<td>11.66</td>
</tr>
<tr>
<td>Refrigerator</td>
<td>6.47</td>
<td>11.30</td>
</tr>
<tr>
<td>Washing Machine</td>
<td>16.41</td>
<td>19.25</td>
</tr>
<tr>
<td>Air Conditioner</td>
<td>14.90</td>
<td>19.80</td>
</tr>
<tr>
<td><strong>Overall Growth Rate</strong></td>
<td><strong>11.56</strong></td>
<td><strong>15.50</strong></td>
</tr>
</tbody>
</table>

7.4.1.2 Market share of Consumer durables

(i) Market share of Colour Television

偶像 Total Share of the reference companies also fluctuated in the intermittent year and got reduced in the terminal year. Wider fluctuations in the market share show that higher competition from foreign brands.

偶像 Videocon remained the market leader through out the period under review.

偶像 Highest reduction of market share was found in Bestavision and Salora International. Finally, Salora International lost out from the market.

偶像 The reference companies’ market share of Colour television has shown a healthy share in the initial years, wider fluctuations in the intermittent years and sharp reduction in the terminal years.
(ii) Market share of Refrigerator

The reference companies' aggregate market share in the initial year of our analysis was 100 per cent and declined substantially to 58.57 per cent in 2005-06 signaling the battle for market share sustenance with the foreign brands during the period under review. It appears that in the year 2005-06, the domestic brands have lost out in the competition and lost almost 42 per cent of the market share to the foreign brands in Refrigerator segment.

Whirlpool has started off well as a challenger, maintained its second position upto 1998-99 dethroned Godrej (market leader) in the subsequent year and sustained its top position till the end.

(iii) Market share of Washing Machine

Aggregate market share of the reference companies fluctuated over the years from 93.69 per cent in 1991-92 to 72.36 per cent in 2005-06 signaling the battle for market share sustenance with the foreign brands during the period under review.

Videocon Appliances secured the highest market share, thus emerging market leader in the top spot during the entire period under review.

Popular brands such as Electrolux Kelvinator, Onida and Whirlpool could not improve their relative share even by a small per cent which implies that the new entrants (foreign brands) are very strong in their strategies.

The market share of BPL Sanyo got reduced drastically during the period under review, which indicates it's inability to withstand the competition.

(iv) Market share of Air Conditioner

There was a sea-saw battle for market leadership between Voltas, Carrier Aircon and Blue Star.

Aggregate market share of the reference companies in the initial year was 95.01 per cent and fluctuated heavily in the intermittent years and declined to 61.71 per cent in the terminal year testifying the battle for market share sustenance with the foreign brands during the period under review.
Godrej-GE appliances and SIEL almost lost out of the market.

Popular brands such as Videocon International, and Amtrex Hitachi could not improve their relative share even by a small per cent which imply that the foreign companies are very strong in their strategies.

7.4.1.3 Market share Gain/Erosion

(i) Market share Gain/Erosion in Colour Television

➢ BPL share got heavily eroded because it couldn’t withstand the entry of foreign brands. Videocon experienced slight market share gain in some years but erosion in the terminal year.

➢ Onida group also couldn’t withstand the competition from foreign brands.

➢ Erosion in market share was the result of domestic brands inability to withstand hyper competition from foreign brands.

(ii) Market Share Gain/Erosion in Refrigerator

➢ The market leader’s (Whirlpool) share got eroded in the initials years, but experienced some gain in the intermittent and terminal years indicating its market dominance against foreign brands.

➢ The market challenger (Godrej) has suffered heavy erosion during the period under review, indicating its inability to withstand the competition from foreign brands.

➢ Voltas and BPL Refrigeration also couldn’t withstand the competition from foreign brands.

(iii) Market Share Gain/Erosion in Washing Machine

➢ Market share of Videocon Appliances, Whirlpool group, BPL Sanyo, Electrolux Kelvinator and ONIDA Savak got eroded heavily, signaling their inability to withstand the entry of foreign brands.

(iv) Market Share Gain/Erosion in Air Conditioner

➢ Both the market leader (Voltas) as well as the market challenger (Carrier Aircon) suffered heavy erosion during the period under review signaling their inability to withstand the competition from foreign brands.
Fedders Lloyd also couldn’t withstand the competition from foreign brands.

Blue Star has experienced marginal gain from 2002-03 till the end indicating its market dominance against foreign brands.

7.4.1.4 Prices

(i) Prices of Colour Television, Refrigerator, Washing Machine and Air Conditioner

- The prices of all brands had fluctuated over the years indicating increases and decreases.
- One reason for sustained reduction in prices was that, initially all companies marketed premium brands and gradually introduced economy brands in their product range thus reducing the price.
- The lack of price stability could be due to price manipulation strategy adopted by the reference companies of Refrigerator, Washing Machine and Prices of Air Conditioner.

7.4.1.5 Price Elasticities of Market Share

(i) Price Elasticities of Market Share in Colour Television, Refrigerator, Washing Machine and Air Conditioner

- The price elasticity ‘e’ assumes both positive and negative values over the period in all the reference companies in selected Indian consumer durable products.
- Ignoring the negative sign, the ‘e’ values are found to be greater than one in most of the years and in most of the reference companies. It is inferred that the market share is elastic; market share is sensitive to price changes.

7.4.1.6 Cross Elasticities of Market Share

(i) Cross Elasticities in Colour Television, Refrigerator, Washing Machine and Air Conditioner

- It is evident that the cross elasticities (ec) assumes both positive and negative values over the period in all the reference companies.
- Ignoring the negative sign, the cross elasticity values are greater than one in most of the years. Hence, it is inferred that a change in the price of competitors’ products caused a more than proportionate change in the market share of the reference companies.
7.4.1.7 Advertising Elasticities of Market Share

(i) Advertising Elasticities in Colour Television, Refrigerator, Washing Machine and Air Conditioner

It is evident that the advertisement elasticities of different companies indicate different behavioural pattern during the period under review. The elasticities were neither uniform nor exhibit a trend and fluctuated widely pointing acute inter firm rivalry in advertising and its impact on the market share. Further the entry of foreign brands and their advertisement elasticities further complicated the advertisement effectiveness of domestic brands. The monopolistic market behaviour was so evident that the domestic brands advertising strategy was counter productive in many instances as evidenced by the negative elasticities.

The prominent companies suffered due to counter productive advertisement elasticity were Onida Group and Videocon in Colour TV, Voltas and Godrej in Refrigerator, Videocon Appliances and Onida Savak in Washing Machine and Blue Star and Voltas in Air Conditioner.

7.4.2 Determinants of Market Share

7.4.2.1 Determinants of market share in Colour Television:

- The most significant variables which explain the market share of Indian brands Colour Television are Marketing Expenses (ME\textsubscript{t}) and R&D expenses (RDE\textsubscript{t}). However, Sankaranarayanan (2006) reported that Advertising expenses, Personnel Selling expenses and Prices are the most significant determinant of market share of Colour TV.

- Previous Market Share (MS\textsubscript{t-1}), Advertising expenses (AE\textsubscript{t}) and Distribution Expenses (DE\textsubscript{t}) are statistically significant in 3 companies and Selling Expenses (SE\textsubscript{t}) is statistically significant in 2 companies. Therefore, Previous Market Share (MS\textsubscript{t-1}), Advertising expenses (AE\textsubscript{t}) Distribution Expenses (DE\textsubscript{t}) and Selling Expenses (SE\textsubscript{t}) are the moderate determinant of market share of Colour Television.

- Even though Prices (PR\textsubscript{t}) are statistically significant in 2 companies, it is positively related to market share in four companies. Buzzell and Wiersema 1981a; Jacobson and Aaker 1985; Phillips, Chang, and Buzzell 1983; Robinson and Fornell (1985) arrived a positive relationship between price and market share.
7.4.2.2 Determinants of market share in Refrigerator:

- The moderate determinants of market share of Refrigerator are Distribution Expenses (DE_t), Previous Market Share (MS_{t-1}) and Advertising Expenses (AE_t).

- Selling expenses (SE_t) and Prices (PR_t) are statistically significant in one company and surprisingly Marketing Expenses (AE_t) and R&D expenses (RDE_t) are not statistically significant in any of these companies. Therefore Selling expenses (SE_t), Prices (PR_t) Marketing Expenses (AE_t) and R&D expenses (RDE_t) are not significant determinants of market share of Refrigerator.

7.4.2.3 Determinants of market share in Washing Machine:

- The most significant variable which explains the determinant of market share of Washing Machine is Selling Expenses (SE_t).

- Distribution Expenses (DE_t) is the moderate determinant of market share of washing machine.

- Previous market share (MS_{t-1}), Marketing Expenses (AE_t) and Prices (PR_t) are statistically significant in one company. Further Advertising expenses (AE_t) and R&D expenses (RDE_t) are not statistically significant in any of the companies. Therefore, Previous Market Share (MS_{t-1}), Marketing Expenses (AE_t), Prices (PR_t), Advertising Expenses (AE_t) and R&D expenses (RDE_t) are not significant determinants of market share of washing machine.

7.4.2.4 Determinants of market share in Air Conditioner:

- The most significant variable which explains the determinants of market share of Air Conditioner are Marketing Expenses (ME_t) and Advertising Expenses (AE_t).

- Prices (PR_t), Selling Expenses (SE_t), and R&D expenses (RDE_t) are the moderate determinants of market share of Air conditioner.

- Previous Market Share (MS_{t-1}) and Distribution Expenses (DE_t) are not significant determinants of market share of Air conditioner.
The most significant variables which determines the market share are Marketing Expenses (MEt) and R&D expenses (RDEt) in Colour TV, Selling Expenses (SEt) in Washing Machine, Marketing Expenses (MEt) and Advertising Expenses (AEt) in Air Conditioner. The moderate determinants of market share of Refrigerator are Distribution Expenses (DEt), Previous Market Share (MS_{t-1}) and Advertising Expenses (AEt).

Sankaranarayanan (2006) reported that Advertising expenses and Prices are the most significant determinant of market share of Indian consumer durable products. On the contrary, our study led to the conclusion that Marketing Expenses (MEt), Selling Expenses (SEt), Distribution Expenses (DEt), R&D expenses (RDEt), Previous Market Share (MS_{t-1}), and Advertising Expenses (AEt) are the significant determinants of market share of Indian consumer durable products.

7.4.3 Market share and Profitability Relationship

Research into the correlation between market share and profitability has led to debate over whether the observed association is direct or spurious. We too have attempted to find out the exact relationship or otherwise between these two variables in selected Indian consumer durable products. The conclusions drawn are:

Simultaneous relationship of market share determining profitability and profitability determining market share has been found valid in BPL Group (Y2) of Colour Television and Videocon Appliances (Y4) of Washing Machine. Hence, simultaneous equation models need to be used to find out the direct and indirect effects of market share and profitability relationships.

The causal relationship between market share and profitability is significant in two companies in Colour TV, Refrigerator and Washing Machine and one company in Air Conditioner.

The reverse relationship between market share and profitability is found significant in two companies in Colour TV, one company in Refrigerator and Washing Machine and four companies in Air Conditioner,
The overall results revealed that the relationship between market share and profitability is positive in 15 out of 23 companies of selected consumer durable products, viz., Colour Television, Refrigerator, Washing machine and Air Conditioner.

The results of this study do not concur with the conclusion drawn by Hergert (1984), Bourantas and Mandes (1987), Schwalbach (1991), Fraering and Minor (1994) and Sankaranarayanan (2006) that market share of a firm did not appear to have any significant association with profitability.

The results support the conclusions of Buzzell et al., (1975), MacMillan et al., (1982), Smirlock (1985), Markell et al. (1988), Kurz and Rhoades (1992) and Szymanski et al. (1993) all of whom found a strong positive relationship between market share and profitability.

7.4.4. Advertising and Market Share Dynamics and Durability of advertising effect on sales

- The simple Koyck lag model implied that advertising effect on sales is relatively long lived in the reference companies of Colour TV, Refrigerator and Air Conditioner, and had mixed effect on sales of the reference companies of Refrigerator.

- Current advertising had counterproductive effect on market share of Onida Group and Videocon in Colour TV, Voltas and Godrej in Refrigerator, Videocon Appliances and Onida Savak in Washing Machine and Blue Star and Voltas in Air Conditioner.

- Current advertising had counterproductive effect on current sales of Bestavision, BPL, Sharp India and Onida Group and Videocon in Colour TV, Voltas in Refrigerator, BPL Sanyo and Onida Savak in Washing Machine and Videocon International, Carrier Aircon and Fedders Lloyd in Air Conditioner.
7.5. Inferences drawn

1. Who are the major players in the Indian consumer durable products market and what are their market shares?

Videocon in Colour Television and Washing Machine, Whirlpool in Refrigerator, and Voltas in Air Conditioner were the market leaders in the selected product groups.

The relative market share of the reference companies declined over the period under review indicating their inability to withstand the competition from foreign brands.

2. What are the inter and intra company variations in market share over a period of time?

The inter and intra product variations in market share were very high, signaling the battle for market share sustenance with the foreign brands during the period under review.

3. What are the price elasticities of market share in the selected products?

Price elasticity of market share was elastic and sensitive to price changes. Therefore even a minor change in price has led to abnormal change in market share.

4. What are the cross elasticities of market share?

The cross elasticity values were greater than one in most of the years. Therefore, a change in competitors' price caused a more than proportionate change in the market share of the reference companies.

5. What are the advertising elasticities of market share?

The advertisement elasticities were neither uniform nor exhibit a trend and fluctuated widely pointing acute inter firm rivalry in advertising and its impact on the market share. Further the entry of foreign brands and their advertisement elasticities further complicated the advertisement effectiveness of domestic brands. The monopolistic market behaviour was so evident that the domestic brands advertising strategy was counter productive in many instances as evidenced by the negative elasticities.

6. What are the determinants of market share?

Marketing Expenses (ME_t), Selling Expenses (SE_t), Distribution Expenses (DE_t), R&D expenses (RDE_t), Previous Market Share (MS_{t-1}), and Advertising Expenses
(AEt) are the significant determinants of market share of selected Indian consumer durable products. In order to increase the market share, the reference companies should concentrate on these variables.

7. **What is the nature and extent of relationship between market share and profitability?**

The relationship between market share and profitability is positive and statistically significant.

8. **What are the advertising and market share dynamics?**

Current advertising had counterproductive effect on market share of Onida Group and Videocon in Colour TV, Voltas and Godrej in Refrigerator, Videocon Appliances and Onida Savak in Washing Machine and Blue Star and Voltas in Air Conditioner.

9. **What is the durability of advertising effect on sales?**

The advertising effect on sales is relatively long lived in the reference companies of Colour TV, Refrigerator and Air Conditioner, and had mixed effect on sales of the reference companies of Refrigerator.

**7.6 Suggestions and recommendations**

1. The reference companies’ market share got eroded over the period in selected Indian consumer durable products signaling their inability to withstand the competition from foreign brands. Therefore, these companies should formulate prompt and vigorous strategies to overthrow the competition of foreign brands.

2. There was not much difference between the rate of growth of industry sales and the sales of the reference companies’ in washing machine, it is inferred that the foreign brands couldn’t make much dent into the washing machine segment. Hence, the reference companies in washing machine should be alert in gauging the changes in market and prompt in formulating the strategies.

3. We found that the market leader is dethroned by challengers, therefore it is suggested that the market leader can maintain their market positions and reduce the likelihood of being dethroned by (i) taking more new proceedings and (ii) undertaking actions and strengthen their strategies more quickly than challengers.
4. Price elasticity of market share is elastic and sensitive to price changes. Therefore even a minor change in price has led to abnormal change in market share and therefore the reference companies in selected Indian consumer durable products have to be very careful while manipulating prices to influence market share.

5. Sometimes, the consumers were annoyed with over advertisements and its mode, consequently this has reduced the brand name as well as sales. Advertising tends to create a long "memory" effect in the minds of buyers because "thinking" is the key element in the hierarchy of effects. Therefore, the advertisements and its mode should be selected with caution.

6. The most significant variables which explain the market share of Colour Television are Marketing Expenses (ME_t) and R&D expenses (RDE_t). Previous Market Share (MS_{t-1}), Advertising expenses (AE_t) Distribution Expenses (DE_t) and Selling Expenses (SE_t) are the moderate determinant of market share. Therefore, in order to increase the market share of Colour Television, the reference companies should concentrate on these variables.

7. The moderate determinants of market share of Refrigerator are Distribution Expenses (DE_t), Previous Market Share (MS_{t-1}) and Advertising Expenses (AE_t). Therefore, in order to increase the market share of Refrigerator, the reference companies should concentrate on these variables.

8. The most significant variable which explains the determinant of market share of Washing Machine is Selling Expenses (SE_t) and Distribution Expenses (DE_t). Therefore, in order to increase the market share of Washing Machine, the reference companies should concentrate on these variables.

9. The most significant variable which explains the determinants of market share of Air Conditioner are Marketing Expenses (ME_t) and Advertising Expenses (AE_t). Prices (PR_t), Selling Expenses (SE_t) and R&D expenses (RDE_t) are the moderate determinants of market share of Air conditioner. Therefore, in order to increase the market share of Air Conditioner, the reference companies should concentrate on these variables.

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10. Actions to improve the market share on the presumption that will enhance profitability have been proved correct.

11. Current advertising had counterproductive effect on market share of Onida Group and Videocon in Colour TV, Voltas and Godrej in Refrigerator, Videocon Appliances and Onida Savak in Washing Machine and Blue Star and Voltas in Air Conditioner. Therefore the reference companies should take immediate steps to cut back the advertising expenditure and to change the mode of advertising.

12. Periodic instead of continuous advertising is more cost-effective for consumer durables. Since buying frequency is low and the consumer’s decision-making process is complex, a think-act hierarchy, or an involved consumer, is assumed. That is, to reduce risk, the consumer will commit to an extensive information search and a long thinking process, and will look at familiar brands, if there are any. His or her subsequent behavior is purposeful, resulting from insight and a belief in the brand, not from a random or impulsive act (Mulvey et al. 1994; Wells and Prensky 1996). A highly involved consumer tends to have a good memory for a relevant advertising message. Due to this lag effect, the message does not need to be repeated often if it can build a brand image in the consumer's mind successfully.

**Monopolistic competition**

The products of various sellers are fairly similar (but not same) and serve as close substitutes of each other. Every seller has a monopoly of his own differentiated product but he has to face stiff competition from his rival sellers which are selling close substitutes of his product.

The rival firms under monopolistic competition keenly compete with each other through advertisement by which they alter the consumer's wants for their products and attract more customers.

In this study, the monopolistic market behaviour was so evident that the domestic brands advertising strategy was counter productive in many instances as evidenced by the negative elasticities.
7.7 Directions for Future Research

1. The reasons for the subdued performance of the domestic brands against foreign brands in this segment could be an another area of research.

2. Simultaneous equation models need to be used to find out the direct and indirect effects of market share and profitability relationships. This could be an another area of research.

3. Determinants of profitability in this segment could be an another area of research.

4. Our focus is on consumer durables. Similar studies can be undertaken on consumer semi-durables, non-durables and service products.

5. Market share is also determined by the marketing strategies of the different competitors. In this thesis we have not considered the market strategies interdependency for the analysis and this could be an another area of research.

6. The effect of competitors advertising on advertising depreciation rate of the reference companies could be an another area of research.