



State of Competition in the Indian Manufacturing Sector

T. A. Bhavani and N.R. Bhanumurthy

Institute of Economic Growth
University of Delhi (North Campus), Delhi – 110007

Email: adi@iegindia.org, bhanu@iegindia.org



Outline of the Presentation

- Theoretical Base
- Existing Empirical Works
- Basic Concepts Underlying Current Study
- Indian Industry: Pre-Reforms
- Indian Industry: Post-Reforms
- Plan of the Study
- Data Base



Theoretical Base

- ***SCP Paradigm*** (Mason and Bain Works 1940-60)
- ***Structure*** → ***Conduct*** → ***Performance***
- **Structure**: No. of Firms, Size of Firms, Cost Conditions, Entry Conditions
- **Conduct**: Collusion, Product Differentiation, R&D, Advertisement
- **Performance**: Profitability
- **Criticism**: Unidirectional Relation, Lacks analytical rigor, Industry-level focus

Theoretical Base

- New Industrial Organisation Theories
- Structure \rightleftharpoons Conduct
- Performance: Market Power = Price-Cost Margins
- Focus on Market Structure Analysis
- Seller Concentration: Herfindahl Index = $\sum s_i^2$
- $H = f(\text{EOS}, \text{MES}, \text{KR}, \text{RD}, \text{ADV})$
EOS = Economies of Scale, MES= Min. Efficient Scale, KR= Capital Requirements, RD= Research & Development Expenditure, ADV= Advertisement Expenditure
- Importance of Firm-level Characteristics
- Limitations: Lack Generality



Theoretical Base

- Contestable Market Hypothesis
(Baumol et al 1959 and Baumol 1982)
- Potential Competition Disciplines Market as much as Actual Competition
- Easy Entry and Exit generates Potential Competition

Existing Empirical Works

Manufacturing Sector-Level:

Kambhampati (1996): 1975-85, ASI/RBI data, CRs

NCAER (2001): 80-1 - 96-7, RBI data, PCMs

Goldar and Aggarwal(2004): 80-1–97-8, ASI, trade lib. PCMs

Pandey (2004): 80s & 90s, ASI, Trade lib. PCMs & Profitability

Ramaswamy (2006): 1993-4 & 2002-3, CMIE, H-Index,

Chand and Sen (1998): 1973-88, ASI, Trade lib. PCMs, CRs

Individual Industries

Sen (1992): Tyre Industry, 1974-83, PCMs, CRs

Joseph (2004): Electronics, 91-2 – 96-7, Mkt. Shares, CRs

Gokarn& Vaidya (2004): AutoComponents, 91-2 – 96-7,


Mkt.share

Basic Concepts Underlying Current Study



- Competition is a Process
- Process of Competition and Contestability
 - Lower Prices & superior Products
(Consumer Welfare)
- Technology and Scale
- Right Degree of Competition (No. Suppliers)
- Structure Evolves Over Time
- Market Structure is based on Supply Side Structure and Conduct of Industry

Indian Industry: Pre-Reform Period

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- **Smaller Size, Not Much Technological Change**
 - **High Cost & Low Quality Products**
 - **Highly Diversified**
 - **High Market Concentration**
 - **Market Shortages and Segmented Markets**
 - **Organised Private Industry Focused on**
Upper-end Urban Markets → Super Normal Profits
Diversified into Unrelated Areas
 - **Industry Neither had Freedom Nor Incentive to Improve Its Performance on the Supply Side i.t.o productivity, costs, etc**
 - **Slow Growth and Persistent Market Shortages**

Indian Industry: Post-Reform Period



- Restructuring of Industry:

focus on Core Competencies → Mergers & Acquisitions

New Technologies, New Products → ↑ Scale of Operation

Marketing, Advertisement & Sales Promotional Activities



Plan of the Study

- Objective: Analysis of Market Structure
- Potential Competition: Ease of Entry & Exit Conditions
(Policy Barriers and Others)
- Actual Concentration: Market Concentration:
Measurement of Herfindahl Index
Changes in H-Index Over Time (1989-2003)
Changes in the first 5 or 10 Market Players Over
Time
Growth of Market Size over Time
Import Penetration Over Time



Plan of the Study

- Analysis of Changes in the H – Index Across Industries (use-based or other groups)
- Analysis of Market Concentration
 $H = f(\text{EOS}, \text{MES}, \text{KR}, \text{Ownership}, \text{RD}, \text{ADV})$
Where EOS, MES and KR will be obtained by estimating cost function
- Estimation of Cost function: $\text{TC} = f(P_k, P_l, P_m, Y)$



Data Base

- **CMIE:** Market Shares, Market Size and Imports
- **Capital Line Data:** Variables Required for the Estimation of Cost Function