

Is Complementary Investment the Key to Success of Multinational Enterprises in Developing Country Context?

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Research Issues / Complexities

Context

Success

Complementary

Determinants

Policy

Objective & Hypotheses

Research Objective

To find the determinants of *success*¹ for foreign firms in India

¹ *Success of a foreign firm, in this research, is defined by the consistency of the firm in terms of its growth in sales, profit generating ability or profit before depreciation, interest and tax (PBDIT) and profit sharing ability or profit after tax (PAT).*

Research Hypotheses

- (a) Successful foreign firms in India made *holistic investment*² across the various market functions of their respective industries in India.
- (b) Direct investment by foreign firms in *complementary businesses*³ of their respective industries contributed significantly to their success in India.
- (c) Determinants of success have been similar for the successful foreign firms in India

² *Holistic investment* means making investment in main business, investment in complementary businesses, investment in certain areas such that the firm's goals gets aligned with host country's national goals, and localization of management and ownership.

³ *Complementary businesses* include all the directly and indirectly related economic activities in the value chain of the business that the foreign firm is engaged in. These economic activities could be in the downstream or upstream of the vertical value chain and other support activities in the horizontal value chain. For instance, the value chain of a company selling cars will include car assembling, car engine manufacturing, car component making, distribution network, service center network, and car financing.

Research Methodology

Research Methodology

Sampling Methodology

Five Step Sampling Method

Hierarchical Clustering Technique

Case Method of Analysis

Statistical Confirmatory Tests

Five Stage Sampling Process

1. **Study the historical trends of foreign direct investment in India**
2. **Select the population of investing foreign companies**
3. **Spot the individual companies in the selected population**
4. **Sort the individual companies on a three-dimensional Matrix (Origin, Industry, Year of Entry)**
5. **Select cases from the above matrix that qualify on three key parameters (annual sales, consistency in performance)**

Hierarchical Clustering Analysis

Basis

Sales, PBDIT, PAT

Period

1990, 1995, 2000

58 Firms

MNC-1, MNC-2, MNC-3

Methodology for Studying Individual Case

Sources of Data

Company Annual Reports

Chairman's Annual Speeches

MOUs, MOAs

Company Prospectus and

Case Histories

Detailed Interview with senior executives

Interview with former and present senior and top executives of the three Cases

MNC-1

Mr. Ajit N Haksar, Mr. Samir Ghosh, Mr. J N Sapru, Abhijit Basu, Mrs Champaka Basu, and Mr. Anand Nayak

MNC-2

Mr. T Thomas, Mr. M K Sharma, Dr. A S Ganguly, and Mr. Irfan Khan

MNC-3

Mr. Junzo Sugimori, Mr. R C Bhargava, and Mr. S Ravi Aiyar, Keiji Nakajima

For individual cases

Model based statistical technique: Multiple linear regression analyses – SPSS 11.0

dependent variable = sales, PAT

independent variable = investment in main business, investment in complementary businesses, and investment in others

For aggregate data of all three cases

Model based statistical technique: Multiple linear regression analyses – SPSS 11.0

Data based statistical technique: ANN Analysis – MATLAB 6.5 (Architecture - 3:2: 1, Number of iterations - 5000)

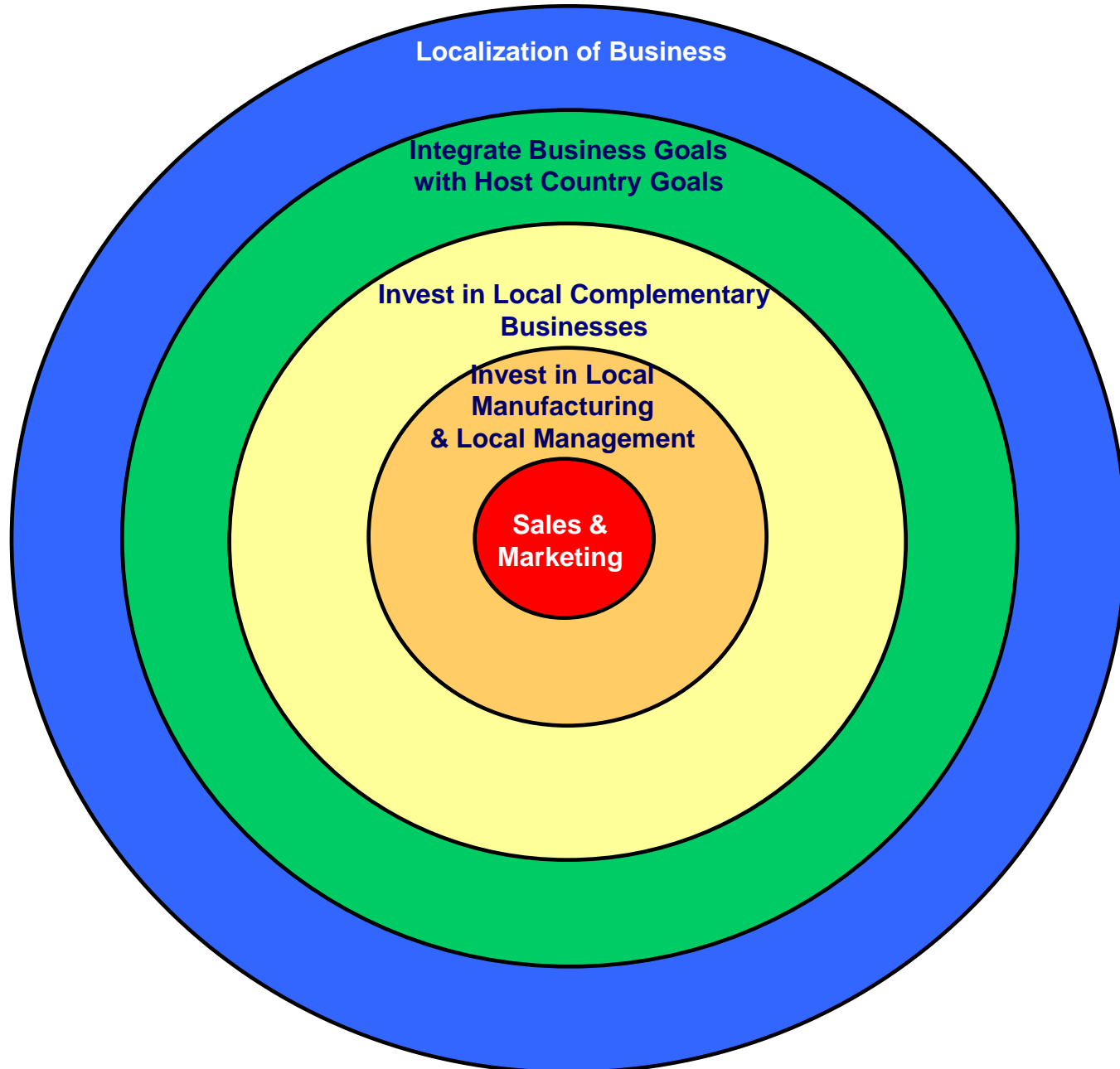
Framework for Case Analysis

To verify *Hypothesis 1*

How the company invested in the following areas:

- (a) Sales & Marketing
- (b) Main Business
- (c) Complementary Businesses
- (d) Priorities areas of India, and
- (e) Local Equity

Pattern & Areas of Investments



To verify hypothesis 2

Multiple Linear Regression Analysis

Dependent variables: *sales and PAT*

Independent variables: *investment in main business, investment in complementary businesses and investment in other areas⁴*

⁴*Investment in other areas includes investment in Government securities and other unrelated activities.*

To verify hypothesis 3

A comparison of direct investment strategy in the three cases

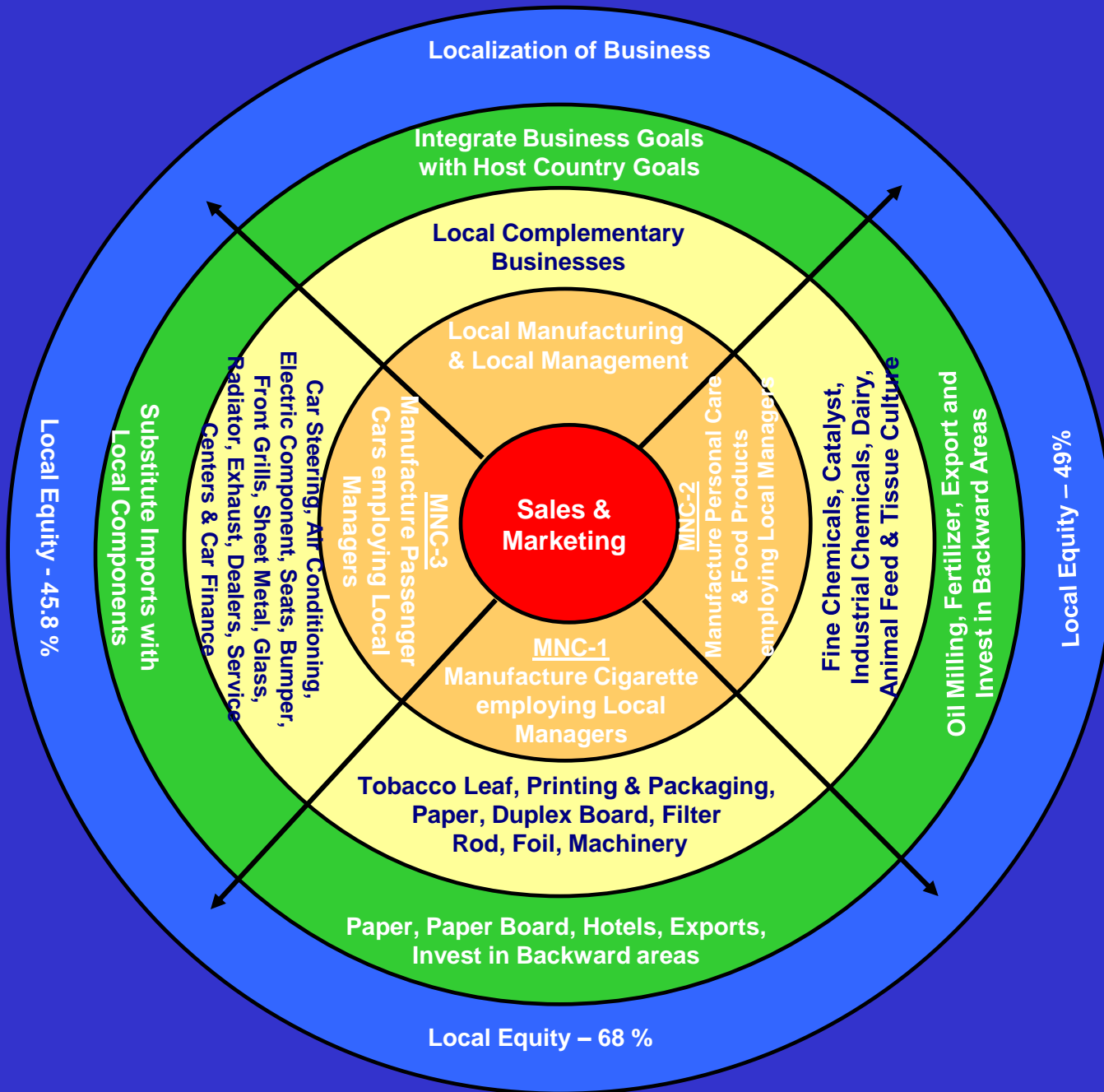
Multiple linear regression analysis taking data of all the three cases

Artificial Neural Network Analysis to verify the regression coefficient of linear regression

Observations &

Confirmatory Statistical Test Results

Holistic FDI Strategy of Successful Foreign Firms in India, 1906-2004



Summary of statistical indicators of all Multiple Linear Regression Analyses

Dependent Variable of the Case		R ²	R	F	B			
					C	MB	CB	O
MNC-1	Sales	0.94	0.97	218.28*	54675	19.37*	38.21*	-7.80
	PAT	0.99	0.99	2451.50*	-1001.29	2.59*	2.42*	0.43
MNC-2	Sales	0.99	0.99	5103.01*	57.66	4.65*	13.59*	-2.33*
	PAT	0.99	0.99	2645.15*	-132.97	0.39*	0.32	0.42*
MNC-3	Sales	0.94	0.97	70.07*	9739.64	1.33*	33.09**	1.75**
	PAT	0.84	0.92	24.71*	-345.64	-0.55	3.68	0.63*
Aggregate data	Sales	0.80	0.90	152.29*	16890.67	4.19*	89.72*	-12.88*
	PAT	0.79	0.89	141.33*	-1595.83	0.37**	9.69*	-0.68**

* P ≤ 0.01 ** P < 0.05

R² = coefficient of determination,

F = F Statistic from ANOVA,

C = constant,

CB = investment in complementary businesses,

R = coefficient of correlation,

B = coefficient of independent variable,

MB = investment in main business,

O = investment in others

Individual Case Analyses

$$S_1 = 54675 + 19.40 MB_1 + 38.2 CB_1 - 7.85 O_1 \quad (1)$$

$$S_2 = 57.66 + 4.65 MB_2 + 13.59 CB_2 - 2.33 O_2 \quad (3)$$

$$S_3 = 9739.6 + 1.33 MB_3 + 33.09 CB_3 + 1.75 O_3 \quad (5)$$

$$P_1 = -1001 + 2.59 MB_1 + 2.42 CB_1 + 0.43 O_1 \quad (2)$$

$$P_2 = -132.97 + 0.39 MB_2 + 0.32 CB_2 + 0.42 O_2 \quad (4)$$

$$P_3 = -345.64 - 0.55 MB_3 + 3.68 CB_3 + 0.63 O_3 \quad (6)$$

Aggregate Analysis

$$\text{Sales} = 16890.6 + 4.19 MB + 89.79 CB - 12.9 O \quad (7)$$

$$\text{PAT} = -1595.83 + 0.37 MB + 9.69 CB - 0.69 O \quad (8)$$

Inferences

Holistic Direct Investment Strategy
including investments in
Complementary Businesses

Investment in Complementary Business had
significant impact on Firm Performance

Complementation Strategy – Key to Success in
developing country context