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 change 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

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
Localization of Business

Integrate Business Goals with Host Country Goals

Invest in Local Complementary Businesses

Invest in Local Manufacturing & Local Management

Sales & Marketing
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 areas*\(^4\)

\(^4\)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

Localization of Business

Integrate Business Goals with Host Country Goals

Local Complementary Businesses

Local Manufacturing & Local Management

Tobacco Leaf, Printing & Packaging, Paper, Duplex Board, Filter Rod, Foil, Machinery

MNC-1 Manufacture Cigarette employing Local Managers

MNC-2 Manufacture Personal Care & Food Products employing Local Managers

Substitute Imports with Local Components

Car Steering, Air Conditioning, Electric Component, Seats, Bumper, Front Grills, Sheet Metal, Glass, Radiator, Exhaust, Dealer’s Service Centers & Car Finance

MNC-3 Manufacture Passenger Cars employing Local Managers

Local Equity – 68%

Paper, Paper Board, Hotels, Exports, Invest in Backward areas

Local Equity – 45.8%

Oil Milling, Fertilizer, Export and Invest in Backward Areas

Local Equity – 49%
### Summary of statistical indicators of all Multiple Linear Regression Analyses

<table>
<thead>
<tr>
<th>Dependent Variable of the Case</th>
<th>R²</th>
<th>R</th>
<th>F</th>
<th>B</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>C</td>
</tr>
<tr>
<td>MNC-1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sales</td>
<td>0.94</td>
<td>0.97</td>
<td>218.28*</td>
<td>54675</td>
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<tr>
<td>PAT</td>
<td>0.99</td>
<td>0.99</td>
<td>2451.50*</td>
<td>-1001.29</td>
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<tr>
<td>MNC-2</td>
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<td></td>
<td></td>
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<tr>
<td>Sales</td>
<td>0.99</td>
<td>0.99</td>
<td>5103.01*</td>
<td>57.66</td>
</tr>
<tr>
<td>PAT</td>
<td>0.99</td>
<td>0.99</td>
<td>2645.15*</td>
<td>-132.97</td>
</tr>
<tr>
<td>MNC-3</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Sales</td>
<td>0.94</td>
<td>0.97</td>
<td>70.07*</td>
<td>9739.64</td>
</tr>
<tr>
<td>PAT</td>
<td>0.84</td>
<td>0.92</td>
<td>24.71*</td>
<td>-345.64</td>
</tr>
<tr>
<td>Aggregate data</td>
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<tr>
<td>Sales</td>
<td>0.80</td>
<td>0.90</td>
<td>152.29*</td>
<td>16890.67</td>
</tr>
<tr>
<td>PAT</td>
<td>0.79</td>
<td>0.89</td>
<td>141.33*</td>
<td>-1595.83</td>
</tr>
</tbody>
</table>

* P <= 0.01  ** P < 0.05

R² = coefficient of determination,  
R = coefficient of correlation,  
F = F Statistic from ANOVA,  
B = coefficient of independent variable,  
C = constant,  
MB = investment in main business,  
CB = investment in complementary businesses,  
O = investment in others
Individual Case Analyses

\[ S_1 = 54675 + 19.40 \text{ MB}_1 + 38.2 \text{ CB}_1 - 7.85 \text{ O}_1 \]  
\[ S_2 = 57.66 + 4.65 \text{ MB}_2 + 13.59 \text{ CB}_2 - 2.33 \text{ O}_2 \]  
\[ S_3 = 9739.6 + 1.33 \text{ MB}_3 + 33.09 \text{ CB}_3 + 1.75 \text{ O}_3 \]

\[ P_1 = -1001 + 2.59 \text{ MB}_1 + 2.42 \text{ CB}_1 + 0.43 \text{ O}_1 \]  
\[ P_2 = -132.97 + 0.39 \text{ MB}_2 + 0.32 \text{ CB}_2 + 0.42 \text{ O}_2 \]  
\[ P_3 = -345.64 - 0.55 \text{ MB}_3 + 3.68 \text{ CB}_3 + 0.63 \text{ O}_3 \]

Aggregate Analysis

\[ \text{Sales} = 16890.6 + 4.19 \text{ MB} + 89.79 \text{ CB} - 12.9 \text{ O} \]  
\[ \text{PAT} = -1595.83 + 0.37 \text{ MB} + 9.69 \text{ CB} - 0.69 \text{ O} \]
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