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STUDY ON IMPACT OF OUTBOUND MERGER AND ACQUISITION OF SELECTED COMPANY IN AUTOMOBILE SECTOR: CASE STUDY OF DAIMLER AG AND CHRYSLER

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Abstract

Mergers and Acquisitions are used to improve the competitive position and to gain competitive advantage over the other firm through the greater market share, brand image, technology, economies of scale and positioning of portfolio etc. It is instructive to compare domestic and cross border acquisitions due to their distinct nature. The distinction between them is a function of change in market integration which changes the cost benefit structure and also difference in synergies like production function, management efficiency, customer base, cultural differences etc. This research study aimed to focus on the impact of cross border merger and acquisition on business profitability, overall profitability, total revenues, shareholder's wealth and profitability and total assets profitability. The results suggests that merger and acquisition doesn't have significant impact on shareholders wealth , total revenues and assets profitability. But it have significant impact on the overall profitability and shareholder's profitability.

Key Words: *Merger and acquisition, competitive position, market integration, cost benefit structure and business profitability*

INTRODUCTION

There are three important finance related decisions such as – capital budgeting decision, capital structure decision and working capital decision (Jennings, 2008). From project appraisal perspective, merger and acquisition decision has to be considered as capital budgeting decision; but the organization also needs to think about possible financing tools through which the project is eventually going to be funded. So from that perspective, merger and acquisition are part of capital structure decision as well. So from both perspective, firm's merger and acquisition decision is a mixture of capital structure and capital budgeting decision (Angwin, 2001).

Merger and acquisition decision is considered to be a key corporate level decision and its impact is given high importance. Merger and acquisition is done from synergistic point of view and it is generally expected that the revenue of the merger firm will increase due to excessive market share and due to better efficiency and distribution capability (Ahmad, 2004). It is expected that after merger and acquisition, the cost burden of the firm will be reduced through better management and through reducing the cost of capital. Finally, after the merger and acquisition, it is expected that the tax benefit of the organization will increase. It is generally expected that after merger and acquisition the firm's overall profitability will increase, market share will increase, competitive strength will increase and cost of capital will decrease.

Cross-border merger and acquisition is a popular route for global growth and overseas expansion. Cross border merger and acquisition plays an important role in global merger and acquisition. This is true for developing countries. The major factors that motivate organizations to engage in cross border merger and acquisition includes the following:

- Globalization of financial markets
- Market pressure and falling demand due to international competition
- Seek new market opportunities
- Increase company's efficiency in producing goods and services
- Technology share and innovation which reduces costs
- Geographical diversification which would result in increase the assets in other countries

Cross border merger and acquisition have rapidly increased in recent years, accelerating the globalization of industry and reshaping industrial structure at international level. In the 1990s, there has been a marked tendency in Foreign Direct Investment towards merger and acquisition. The value of cross border merger and acquisitions grew more than six-fold in the period 1991-1998, with an increasing tendency towards very large scale unions. Although the above factors which leads to cross border merger and acquisition are complex and vary by sector.

The automobile industry is one of the largest industries. It is one of the key sectors of the economy. The evolution of automobile sector starts from 17th century from the military tractors. Up to 19th century, it was

turned into a rich man's toy. In the initial years, US dominated the market around the globe. However, after the end of the Second World War, countries like Japan and some European countries have entered the market.
This paper has focused on the merger and acquisition experience of Daimler Benz with DaimlerChrysler of 1998. The focus is on the impact of merger and acquisition on shareholder's profitability, overall profitability, margin of sales and the return on total fixed assets.

Background

On May 7, 1998, Daimler Benz of Germany announced to merge with Chrysler Corporation. This was the largest international merger in the history. The combined firm is called DaimlerChrysler AG and is incorporated under jurisdiction of Federal Republic of Germany. Daimler Benz is the largest industrial groups in Germany. Chrysler is one of the 'Big Three' automobile manufacturers in the United States. The objectives of both the organization behind the merger was:

Daimler Benz's objective:

- Access to US market
- Reduce cost of production
- Fear of losing their competitive

Chrysler's objective:

- Avoiding another crisis
- Improve R & D department
- Access to Europe market

Research Objective

- To examine the impact of merger and acquisition on shareholder's wealth
- To examine the impact of merger and acquisition on overall profitability
- To examine the impact of merger and acquisition on total revenue
- To examine the impact of merger and acquisition on shareholder's profitability
- To examine the impact of merger and acquisition on overall assets

LITERATURE REVIEW

In academic discussion, merger and acquisition have knocked around three dimensions- why a firm needs to get merged into another, how the merger and acquisition venture takes place; in a friendly way or in a hostile way, the possible modes of financing **(Chatfield, Dalbor and Ramdeen, 2011)**.
Saint-onge and Chatzkel(2009) have stated in their paper 'Importance of merger and acquisition in Today's Economy' that the merger and acquisition has direct impact on human capital, innovation, structural capital and customer capital. There was a study conducted by **Gaughan(2007)** considering 110 US based firm as sample size during the period of 2001-2004 which conclude that improved management stemming from merger and acquisition produce statistically significant impact over stock prices through better management. According to Kreitl and **Oberndorfer (2004)** , merger and acquisition can bring out economic profit through tax benefits.
According to **Sidharth and sunil (2009)**, there are variations in terms of impact on performance following mergers, depending on the type of organization acquired- domestic or cross border. Mergers have had a positive effect on key financial ratios of firms acquiring domestic firms while a slightly negative impact on the firms acquiring cross border organizations.

RESEARCH METHODOLOGY

Hypothesis will be tested through quantitative data, for which the following null hypothesis can be build up
Hypothesis 1: There will be a significant increase in the post merger return on capital employed than the case with pre merger return on capital employed
Hypothesis 2: There will be a significant increase in the post merger profitability than the case with pre mergerprofitability
Hypothesis 3: There will be a significant increase in the post merger revenues than the case with pre merger revenues
Hypothesis 4: There will be a significant increase in the post merger earnings per share than the case with pre merger earnings per share
Hypothesis 5: There will be significant increase in post merger returns on assets than the case with pre merger returns on assets

Research method

Basically, in research there are mainly three types of research- Quantitative research, Qualitative research and mixed research. In Quantitative research, it is easier to form null hypothesis but authenticity of data is always been a problem. In qualitative research, it is difficult to form null hypothesis but it is difficult to test the reliability of data. And mixed research is used due to gaining both the advantages of Quantitative research and Qualitative research as well. Here, Quantitative research is used.

Defining Variables

To run regression analysis, it is important to learn the independent and dependent variables associated with the test. Following are the key variables;

Variable Name	Dependency Nature	Expected Sign	Calculation
Pre merger ROCE	Independent Variable	positive	Net profit/ Equity + Debt
Pre merger Net Profitability	Independent Variable	positive	Net profit/Revenues
Pre merger Revenues	Independent Variable	positive	Total Revenue
Pre merger EPS	Independent Variable	positive	Net profit/No of outstanding shares
Pre merger Return on Assets	Independent Variable	positive	Net profit/Total Fixed Assets
Post merger ROCE	Dependent Variable	-	Net profit/ Equity + Debt
Post merger Net Profitability	Dependent Variable	-	Net profit/Revenues
Post MergerRevenues	Dependent Variable	-	Total Revenue
Post merger EPS	Dependent Variable	-	Net profit/No of outstanding shares
Post merger Return on Assets	Dependent Variable	-	Net profit/Total Fixed Assets

The analysis is done of per merger and post merger of Daimler Benz and DaimlerChrysler AG respectively taking into consideration the quantitative figures and Hypothesis built up.

Paired t-test was used to analyze whether the pre mergershareholder's wealth, net profit, total revenue, earnings per share and returns on assets vary significantly with post merger shareholder's wealth, net profit, total revenue, earnings per share and returns on assets.

Paired t-test Results

Based on 5% level of significance, Paired t-test is conducted to examine whether the merger variables are changing significantly from time or not. The period of 1995-1997 has been taken as per merger period and the period of 1998-2000 has been taken as post merger period.

The common null Hypotheses for Paired t-test are as under:

MERGER PAIRED VALUE	**p-value**
Per merger and post merger ROCE	.450
Pre merger and post merger Net Profitability	.373
Pre merger and post merger Revenues	.842
Pre merger and post merger Earnings Per Share	.461
Pre merger and post merger Returns on Assets	.498

Data Source: Excel Regression

Impact on Shareholder's wealth:

The following is the summary result;

PARTICULARS	**VALUE/NOTATION**
Dependent variable	ROCE
Independent variable	Time
Expected sign	Positive
Actual sign	Negative
R-Square	57.6%
t-value	-1.16
p-value	.450
F-value	1.36

Data Analysis: Excel Regression

Beta Sign: Expected and actual sign has not matched in this regression equation. So the slope of the regression is not meaningful.

R-Square: R-square of the regression is quite high. Thus the explanatory power is moderate. The time which is independent variable can moderately explain the changes in dependent variable.

t-value and p-value : The t-value of the variable is high and the p-value is too high on a 5% level of significance. So factor variable is not desirable one.

F-value: The F-value is low. So, the regression equation is not desirable one.
Final comment: Based on the regression based result, it can be concluded that the merger doesn't have significant impact on the shareholder's wealth.

Impact on overall profitability
The following is the summary result;

PARTICULARS	VALUE/NOTATION
Dependent variable	Net Profit
Independent variable	Time
Expected sign	Positive
Actual sign	Positive
R-Square	69.3%
t-value	1.5
p-value	.37
F-value	2.25

Data Analysis: Excel regression
Beta Sign: Expected and actual sign has matched in this regression equation. So the slope of the regression is meaningful.
R-Square: R-square of the regression is quite high. Thus the explanatory power is moderate. The time which is independent variable can moderately explain the changes in dependent variable.
t-value and p-value : The t-value of the variable is low and the p-value is too high on a 5% level of significance. So factor variable is not desirable one.
F-value: The F-value is low. So, the regression equation is not desirable one.
Final comment: Based on the regression based result, it can be concluded that the merger does have significant impact on the profitability.

Impact on the total revenues:
The following is the summary result;

PARTICULARS	VALUE/NOTATION
Dependent variable	Total revenue
Independent variable	Time
Expected sign	Positive
Actual sign	Negative
R-Square	5.99%
t-value	-.25
p-value	.84
F-value	.06

Data Analysis: Excel regression
Beta Sign: Expected and actual sign has not matched in this regression equation. So the slope of the regression is not meaningful.
R-Square: R-square of the regression is quite low. Thus the explanatory power is low. The time which is independent variable can hardly explain the changes in dependent variable.
t-value and p-value : The t-value of the variable is high and the p-value is too high on a 5% level of significance. So factor variable is not desirable one.
F-value: the F-value of the regression is too low. The regression equation is not desirable one.
Final comment: Based on the regression based result, it can be concluded that the merger doesn't have significant impact on the total revenues.

Impact on shareholder's profitability:
The following is the summary result:

PARTICULARS	VALUE/NOTATION
Dependent variable	Earnings per share
Independent variable	Time
Expected sign	Positive
Actual sign	Positive
R-Square	56.04%
t-value	1.12
p-value	.46
F-value	1.27

Data Analysis: Excel regression
Beta Sign: Expected and actual sign has matched in this regression equation. So the slope of the regression is meaningful.
R-Square: R-square of the regression is quite high. Thus the explanatory power is moderate. The time which is independent variable can moderately explain the changes in dependent variable.
t-value and p-value : The t-value of the variable is low and the p-value is too high on a 5% level of significance. So factor variable is not desirable one.
F-value: The F-value is low. So, the regression equation is not desirable one.
Final comment: Based on the regression based result, it can be concluded that the merger does have significant impact on the shareholder's profitability.

Impact on asset's profitability:
The following is the summary result:

PARTICULARS	VALUE/NOTATION
Dependent variable	Return on asset
Independent variable	Time
Expected sign	Positive
Actual sign	Negative
R-Square	50.28%
t-value	-1.01
p-value	.49
F-value	1.01

Data Analysis: Excel Regression
Beta Sign: Expected and actual sign has not matched in this regression equation. So the slope of the regression is not meaningful.
R-Square: R-square of the regression is quite high. Thus the explanatory power is moderate. The time which is independent variable can moderately explain the changes in dependent variable.
t-value and p-value : The t-value of the variable is high and the p-value is too high on a 5% level of significance. So factor variable is not desirable one.
F-value: The F-value is low. So, the regression equation is not desirable one.
Final comment: Based on the regression based result, it can be concluded that the merger doesn't have significant impact on the total revenues.
According to Chen (1999), with the help of merger and acquisition, firm's value increases which is consistent with horizontal merger, vertical merger and conglomerate merger. Horizontal merger often increases the monopoly and once the monopoly increases the bargaining power of buyer's decreases.

CONCLUSION

In this part of the study, there is presented the summary of major findings with examining to what extent the research objective fulfilled.
DaimlerChrysler AG has failed to impact the shareholder's wealth. It has been evident in regression based study that on a 5% level of significance, the merger has failed to produce statistically significant impact over shareholder's wealth.
DaimlerChrysler AG has impact the profitability. It has been evident in regression based study that on a 5% level of significance, the merger has statistically significant impact over profitability.

DaimlerChrysler AG has failed to impact the total revenue. It has been evident in regression based study that on a 5% level of significance, the merger has failed to produce statistically significant impact over total revenue.
DaimlerChrysler AG has impact on the shareholder's profitability. It has been evident in regression based study that on a 5% level of significance, the merger has statistically significant impact over shareholder's profitability.
DaimlerChrysler AG has failed to impact the asset's profitability. It has been evident in regression based study that on a 5% level of significance, the merger has failed to produce statistically significant impact over asset's profitability.

LIMITATIONS OF THE STUDY

Small sample
In this research the sample size is very small i.e. 3 years
Limited variables: This research considers only five variables that have impact on the merger and acquisition but there are other variables which play an important role in success of the merger and acquisition.
Data
This study only focuses on the quantitative data and not on the qualitative data.

SCOPE FOR FURTHER STUDY

Similar impact survey can be conducted on other organizations having merger and acquisition.
Impact of other variables on merger and acquisition can be studied.

REFERENCES

Chatfield, H. K., Dalbor, M. C., &Ramdeen, C. D. (2011). Returns of merger and acquisition activities in the restaurant industry. *Journal of foodservice business research*, *14*(3), 189-205.

Saint-onge and Chatzkel,(2009). Importance of merger and acquisition in today's economy

Gaughan,(2007). Mergers, Acquisitions and Corporate Restructuring

Kreitl and Oberndorfer,(2004). Motives for Acquisitions among engineering consulting firm

Sidharth and Sunil,(2009). Comparison of post merger performance of acquiring firms involved in domestic and cross border acquisition

Ahmad,(2004). Corporate Governance in Banks undergoing Mergers and Acquisitions.

Angwin,(2001). Mergers and Acquisition across European Borders

Chen,(1999). Critical Success Factors for various strategies in the Banking industry

DaimlerChrysler AG case Study Slide Share

Jennings,(2008). Preventing Acquisition Failures

Matej Blasko, Jefry M. Netter and Joseph F. Sinkey. DaimlerChrysler Merger:1 Short term gains long run wealth destruction?

Nam-Hoon Kang and Sara Johansson,(2000). Cross border mergers and acquisitions