Journal of Informatics Education and Research
ISSN: 1526-4726
Vol 5 Issue 2 (2025)

FACTOFS DETERMING THE PROFITABILITY OF ACQUIRERS IN CROSS-BORDER ACQUISITIONS: AN EMPIRICAL STUDY

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Abstract
A series of globalization wave that engulfed the entire business world had direct impact on Indian corporates which left no stone unturned to adapt and evolve the new business model pre-dominated by mergers and acquisitions to achieve their objective inorganically. Viability of mergers and acquisitions as an strategy to expand scale and size of operations greatly depended upon how it helped in increasing revenue and profits. The relative cost structure and the factors of production attracted many Indian corporates to go for cross-border acquisitions and the momentum was shaped beautifully by Indian IT & ITES firms. But the outcomes of mergers and acquisitions had mixed composition, wherein many firms improved upon their financial results and many failed to achieve desired motives.

This study intend to find out the impact of contributing factors in overall profitability of Indian acquirers belonging to IT & ITES sector. The sample of nine acquiring firms from IT & ITES sector that acquired target firms from overseas have been considered for study. The year of acquisitions is 2016 and 2017. The independent variables taken for analysis are current ratio, debt-equity ratio and earning retention ratio (ERR). The impact of these ratios on return on assets has been analysed. Again, the impact of CR, D/E and ERR on the return on capital employed has been analysed using regression analysis through SPSS software. The outcomes of the SPSS report found negative corelation of ROA and ROCE with CR and D/E whereas the relationship of ERR with ROA and ROCE has been found positive. But the impact of independent variables such as CR, D/E and ERR on dependent variable such as ROA and ROCE has been found insignificant at 95 % confidence level. This shows that there could be many factors which are aimed at going for cross-border acquisitions. Besides, profitability is one factor which is the ultimate outcomes and cross-border acquisitions are one of the processes that may be utilized by corporates to achieve the shareholders wealth maximization in the long-term. The independent factors chosen to predict the relationship with overall profitability may not be directly impacting but somehow they could be relevant to determine the profitability of acquiring firms.

Keywords
Mergers & Acquisitions, Financial performance, Banks, Profitability ratios, JEL Classification Code: G21, G24

Introduction
A series of liberalization, privatization and globalization around the world have greatly facilitated the restructuring the value chains of all firms in general and multinationals in particulars. In order to nullify the effect of increased competition and to remain competitive firms across the globe have undertaken the inorganic ways to achieve the success through mergers and acquisitions **(Coeurdacier, Santis and Aviat, 2009**). The firms from developing

countries like India are a step ahead and looking forward for cross-border acquisitions as a tool to gain technology and competence, which till now was the prerogatives of western multinationals.

Mergers and acquisitions is always a strategic decision and cross-border acquisitions aims to acquire international recognition besides, an innovative way to join the bandwagon of international forces that increase their scale and size by seeking new markets and products. Since the decade of 1980`s foreign direct investment has been the prime mode of internationalization and FDI was dominated by firms from developing countries, joint venture and green field sites opportunities were the other ones **(Amighini, Cozza, Giuliani, Rabellotti, & Scalera, 2015).**

The process of internationalization in India began with economic liberalization and the Indian firms greatly benefitted from this. Government removed most of the shackles related to movement of capital into and out of the countries, as a result most of big corporates undertook cross-border acquisition route as a strategy to go global and become competitive. As a result a series of mergers and acquisitions took place in first decade of 21st century itself and is still going with huge momentum **(Dongre, 2012).**

Getting a boost from continuous and sustained policy reforms in India, many internationalization endeavours happen but Indian firms were calculative in judging the efficacy of acquisitions, and process of due diligence before acquisitions was mostly confined to whether it will add values to shareholders or not. The momentum of merger wave continued to dominate in second decade of 21st century, as a result India rode on global investment map vibrantly and learnt the art of dealing with international challenges on firms performances **(Kohli & Mann, 2012; Nicholson & Salaber, 2013).**

Challenges pertaining to cross-border acquisitions
The biggest challenge the acquirers face is the cultural barrier that has the potential to negate the intended benefits of internationalization if not taken care of properly. A good corporate governance norms of acquiring countries help in mitigating this risk up to an extent Geographical distance also matter in cross-border acquisition. Lesser the distance between the countries, more is the quantum of merger activity. The frequency of trade also dominate among the motives of mergers, more the frequency of trade between countries, more will be the chance of mergers between the countries. In most of the cases the acquirers were from advanced countries and targets were from less advanced countries because of vibrancy of accounting standards in developed countries. And lastly, an important challenge related to off-shore acquisitions is the tax rate prevailing in countries, as acquirers generally hail from high income tax rate countries.

Factors Affecting the Cross-Border Mergers activity
The notion of increased valuation continue to be the primary factor accelerating the pace of merger activity in general. The decrease in the operating cost due to increased scale and size also contribute to cross-border merger activity. Due to the provision of offsetting the loss of previous year from the profits of current year of target firms help in minimizing the tax liability of acquirers and act as an inducement for crossing the border for the business expansion. Valuation differential between countries also encourage the firms to go for acquisition into the

countries with low valuation. The potential of market development and discouraging competition are other factors that contribute to increased flow of FDI through acquisition.

Literature Review

Earlier were the days when we used to hear the acquisitions in developing countries by the developed countries. Post 2010 decade has changed the dynamics of acquisition market and now a days, we often see firms from developing countries acquiring the firms of developed countries. In their conference paper presented by **Chikamato, Lu and Watanabe in Paris in 2013,** the authors used event study to analyse the effect of acquisition event news on acquirers and target firms financial and other performances. In this study, Chinese firms were the acquirers and the Japanese firms were the targets. Stock prices of 66 acquirers and 107 target sample firms that went acquisition from the year 1990 to 2009 were analysed. The firms selected as sample were listed firms. As a whole the impact on stock prices was positive on both acquirers and the targets but the impact was more vibrant for the target firms. The target firms aiming bailout were benefited more than non-bailout firms economically.

Karels, Lawrence and Yu (2011), in their paper involving off-shore acquisitions between firms from US and India, analysed the impact of acquisitions on performances of merging firms using event study methodology. The US firms were the acquirers and the Indian firms were the targets. Sample data of merging firms were taken from 1995 to 2007. The US acquirers were severe losers and the India targets were the net gainers in the deals. Again, the US acquirers of Indian listed targets were the burst sufferers, on the other hand, Indian publicly traded target firms had significant gains in returns. Again, the Publicly traded acquirers of US suffered heavily when they acquired publicly traded Indian firms and here again the publicly traded Indian targets greatly benefited from the deal.

The motive of off-shore acquisitions is always different from that of domestic ones. **Dupati and Rao (2015)** in their comparative study of Indian companies going for cross-border acquisition in comparison to prior results of US acquisition, found a contrasting outcomes. Using the event study method with three days window period and with thirty companies as sample, authors found positive outcome in short period whereas in comparison to US acquisitions which reported negative outcome around announcement day. The outcomes were calculated using Cumulative Average Returns (CAR) at 1 % of statistical significance level. So in this paper the shareholders seemed to add values to their shareholdings in short run.

In another study with event study methodology by **Rahim et al., 2013,** the authors tried to find the true motives of off-boundary acquisitions. The study comprises of 285 transaction as sample, and uses window period of 90 days prior and after the acquisition announcement respectively. The abnormal daily returns during the window period, the firms that went acquisitions from 2000 to 2011, out of 12 factors tested, six factors had positive impact on returns of acquirers. The paper found that internal factors led to value creations of the acquires firms in short run. Tax structure prevalent there in Malaysia was the only external factors that found to add value to the shareholders.

Many firms do not accept the market valuation of their firms and in order to seek higher valuation they resort to acquisition as a tool. **Erel, Liao and Weisbach (2012**) in their research paper tried to find the factors responsible for mergers and acquisitions. In this paper, the sample firms were taken amongst the mergers and acquisitions that took place between 1990 and 2007

Journal of Informatics Education and Research
ISSN: 1526-4726
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and only cross-border acquisitions were considered for the same. The outcomes of the study indicated that more valuable firms tend to be acquirers of comparatively less valuable firms. Again the firms in the countries whose currencies depreciated more happen to be the target on most of the occasion. In the same study it was also observed that financially superior performing countries firms target those countries firms whose financial performance were not up to the mark. Lower capital cost in a particular country attract multinationals to buy the firms in that countries.

Rasol and Raychaudhuri (2019) in their research paper tried to find out whether the firms add value to their shareholder through mergers and acquisitions or not. According to this paper the main motives of cross-border acquisition such as cost reduction and risk spreading were not achieved or better to say less achieved. In t-test analysis of pre-post financial statistics, with time horizon of five years pre-post performances, it was observed that there was no significant difference in either solvency or profitability position of acquiring firms. Prior due diligence of acquisition decision did not seem to be working for merging firms in general. This study proved that strategic decision directly impact the profitability, therefore proper due diligence regarding strategic fit is necessary for considering cross-border acquisition, otherwise, the motive of acquisition may not be achieved.

The product diversification has been a major motive behind acquisitions abroad worldwide. In a research paper **(Kling et al., 2014)** on off-shore acquisitions, involving 478 US and European acquisition between 2002 and 2007, it was observed that host region benefitted from cross-border acquisition in terms of increased valuation in aftermath whereas when they leave the foreign market their valuation decreases. It endorses the concept of interdependence of worldwide firms by complementing and supplementing each other competencies and benefitting each other from their expertise in long run. However, the product diversification as a motive did not find favour from outcomes of cross-border acquisitions as it did not reduce the risk significantly.

Problem Statement

Achieving the short-term and long-term goals of growth through inorganic way of mergers and acquisitions has been the established fact. In case of acquisitions of off-shore firms, the driving force may be slightly different from within the country acquisitions. But the ultimate test of viability of acquisitions is that it should result in increase in profitability of the acquirers. The impact of acquisitions on financial returns of acquirers again depend upon certain factors in post-acquisition period. This paper aims to identify and analyse the factors that contribute in increased profits post-acquisitions. The boom of IT & ITES companies was partly contributed by the mergers and acquisitions in the last decade. Therefore, it was imperative that outcomes in terms of increased profitability should be located to certain factors. Again, Indian acquirers belonging to IT & ITES sectors had advantage of being good quality but low cost developers of products and services and had great scope of expansion through cross-border acquisitions.

Objectives of the Study

- To analyse the impact of Current Ratio, Debt-equity-equity Ratio and Earning Retention Ratio on profitability of Indian acquirers from IT & ITES sector in cross-border acquisition.

Research Hypothesis.

1. **H0:** There is no impact of Current Ratio, Debt-equity-equity Ratio and Earning Retention Ratio on Return on Assets (ROA) of Indian acquirers.
2. **H0:** There is no impact of Current Ratio, Debt-equity-equity Ratio and Earning Retention Ratio on Return on Capital Employed (ROCE) of Indian acquirers.

Research Methodology

This study aims to empirically assess the impact of certain variable on acquiring firms profitability in long run post acquisitions. The sample firms selected from IT & ITES sectors in India that have acquired other related firms abroad. In total, nine firms have been taken as sample for analysis that acquired other overseas firms in 2016 and 2017. The criteria of sample firms selection are as follows:

1. The acquirer firms should be listed ones.
2. The acquisition should be of majority stake ., more than 50% stake.
3. The acquisition value should be more than 10 million USD (US Dollar)

Again it was ensured that the financial performance data is available in the public domain for sample firms. The data was sourced from money control.com.
The independent variables used for this study were current ratios (CR), Debt-equity ratios(D/E) and Earning retention ratios (ERR). And the impact of these variables are assessed on Return on Assets (ROA) and Return on capital Employed (ROCE). The data of three years post-acquisition was averaged and the statistical tool used is regression analysis. The data was analysed and output generated through SPSS software.

Data Analysis.

Table 1. **Model Summary**

	R	R Square	Adjusted R Square	R Square Change	F Change	Sig. F Change
1	**.618**	**.382**	**.011**	**.382**	**1.030**	**.454**

Source: Authors compilation from SPSS 22 Output

Table 1 shows overall model fit representing the dependence of return on assets (ROA) on three independent variables such as , current ratio, debt-equity ratio and earning retention ratio of acquirers in the sample. The value of R represents the corelation between dependent variables and the predictors. The corelation value of 0.618 demonstrate the moderate corelation. The value of R square depicts the variance of dependent variable that can be predicted from independent variables and this table shows that variance predictability is 38.2 % which is not high enough. The value of adjusted R-square is much different from R-square. Therefore, it could be assumed that in case of cross-border acquisitions the independent variables such as ERR, CR and DE are not the very relevant predictor that could be effective variables to be the appropriate fit for dependent variable such as ROE. Again the high difference between the values of adjusted R-square and R-square create doubt about the appropriateness of independent variables ability to impact the dependent variable, particularly in this case.

Table 2.

ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.

Regressed	119.530	3	39.843	1.030	.454[b]
Non-regressed	193.452	5	38.690		
Total	312.982	8			

a. Dependent Variable: ROA
b. Predictors: ERR, CR, DE
Source: Authors compilation from SPSS 22 Output

Table 2 provides for ANOVA value. The total variance is divided into regressed and the residual. The regression shows variability of dependent variable by independent variables and the residual provides the variance which cannot be predicted by independent variables such as current ratio, debt-equity ratio and earning retention ratio. The residual value is 193.452 which is more than regression value of 119.530, demonstrate that the predictors did not predicted the variance in dependent variable that is return on assets. Again the significance value is 0.454 which is much higher than 0.05 at 05 % significance level, shows that there is statistically insignificant prediction of variability in ROA by changes in the independent variables such as CR, D/E, and ERR ratios. Therefore, the ANOVA table suggest that the predictors are not appropriately aligned with the dependent variables which is profitability ratios in this case.

Table 3.

RegressionCoefficients

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	12.047	7.444		1.618	.167
	CR	-.251	1.420	-.076	-.177	.866
	DE	-17.560	16.507	-.477	-1.064	.336
	ERR	.053	.062	.318	.854	.432

a. Dependent Variable: ROA
Source: Authors compilation from SPSS 22 Output

Table 3 shows how to predict the value of dependent variable ROA when all other variables are equal to zero. Since the variables are measured on different scales, their values cannot be compared as such. That is why they are called unstandardized coefficients. The beta values of -0.76, -0.477 and 0.318 provides the standardized coefficients and can predict which variable has more effect on the dependent variable. In this case current ratio and debt/equity ratios negatively impact the constant that is ROA and earning retention ratio positively impacts the dependent variable or the constant. that is return on assets. Again the significance value of o.866, 0.336 and 0.432 all values are much higher than 0.05 therefore the effect of independent variable is quite insignificant to reject the null hypothesis. It could be assumed that these independent variables impact on overall profitability of ROA cannot be significantly justified.

The regression equation is:
ROA= 12.047 + (-0.251) (CR) + (-17.560) (D/E) + 0.053 (ERR)
Table 4. **Model Summary**

	R	R Square	Adjusted R Square	R Square Change	F Change	Sig. F Change
1	**.375**	**.141**	**-.375**	**.141**	**.273**	**.843**

a. Predictors: (Constant), ERR, CR, DE

Source: Authors compilation from SPSS 22 Output

Table 4 shows model fit representing the dependence of return on capital employed on three predictors namely, current ratio, debt-equity ratio and earning retention ratio of acquirers in the sample. The value of R represents the corelation between dependent and predictors variables. The corelation value of 0.375 shows the low to moderate corelation. The value of R square depicts the variance of dependent variable that could predicted the effect of independent variables and this table shows that variance predictability is 14.1 % which is not high enough. The value of adjusted R-square is much different from R-square and it shows the poor predictability of dependent variable by concerned independent variables. Therefore, it shows that in off-shore acquisitions the independent variables such as ERR, CR and DE are not the very relevant predictor that could be effective variables to be the appropriate fit for dependent variable such as ROE. Again the high difference between the values of adjusted R-square and R-square demonstrate about the inappropriateness of independent variables ability to impact the dependent variable, particularly in this case.

Table 5.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regressed	97.731	3	32.577	.273	.843[b]
	Non-regressed	597.109	5	119.422		
	Total	694.840	8			

a. Dependent Variable: ROCE

b. Predictors: (Constant), ERR, CR, DE

Source: Authors compilation from SPSS 22 Output

Table 5 provides for ANOVA value. The total variance is divided into regressed and the residual. The regression shows variability of dependent variable by independent variables and the residual provides the variance which cannot be predicted by independent variables or predictors. The residual value is 597.109 which is more than regression value of 97.731, shows that the predictors did not predicted the variance in dependent variable that is Return on Capital Employed. Again the significance value is 0.843 which is much higher than 0.05, shows that there is statistically insignificant prediction of variability in ROCE by changes in the independent variables such as CR, D/E, and ERR ratios. Therefore, the null hypothesis is rejected.

Table 6.

Coefficients

	Unstandardized		Standardized		
	B	Std. Error	Beta	t	Sig.
1 (Constant)	22.256	13.078		1.702	.150

CR	-1.459	2.494	-.296	-.585	.584
DE	-10.618	29.000	-.194	-.366	.729
ERR	.061	.110	.243	.555	.603

a. Dependent Variable: ROCE

Source: Authors compilation from SPSS 22 Output

Table 6 shows how to predict the value of dependent variable ROCE when all other variables are equal to zero. Since the variables are measured on different scales, their values cannot be compared as such. That is why they are called unstandardized coefficients. The beta values of -1.459, -10.618 and 0.061 provides the standardized coefficients and can predict which variable has more effect on the dependent variable. In this case current ratio and debt/equity ratios negatively impact the constant that is Return on Capital Employed whereas, earning retention ratio impact the ROCE positively. Again the significance value of 0.584, 0.729 and 0.803 all values are much higher than 0.05 therefore the effect of independent variable is quite insignificant to reject the null hypothesis. The regression equation is as follows:

ROCE= 22.256 + (-1.459) (CR) + (-10.618) (D/E) + 0.061 (ERR)

Interpretation and Conclusion

The purpose of mergers and acquisitions depends upon the need of the hour and could vary significantly from sector to sector and firm to firm. In case of off-shore acquisitions the motive could be diverse and the profits of acquirers could not be judged immediately or in near future. Many a times the motive of acquisition could be simply other than mere increasing profitability. From the result outcomes of regression analysis of this study it was quite evident that although the independent variables such as current ratio, debt-equity ratio and earning retention ratio are significant from point of view of profitability, but these factors were not significant contributors of increased profits post-acquisition phase of the sample acquirers belonging to IT & ITES sectors from India. The outcomes of the study could not reject the null hypothesis. Therefore, it is concluded that current ratio, debt-equity ratio and earning retention ratio have not significant impact on Return on Assets and Return on Capital Employed of acquirers on an average and even these parameters did not fit well in the model that decide the profitability of acquirers, at least in the time horizon of three years from acquisition.

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