

Impact of Mergers and Acquisitions on Unemployment: A Case of Indian Economy

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¹The views presented in this paper are personal and do not in any manner represent the views of the Competition Commission of India (CCI).

ABSTRACT

The mergers and acquisitions approval is focused on the product market mainly, but recently input market has also been considered in different jurisdictions. The study's focal point was evaluating the impact of mergers and acquisitions on the unemployment rate in India. The secondary data was collected from CMIE. Data was collected on employment and mergers in manufacturing, service, mining, and real estate and construction industries from March 2016 to September 2020 quarterly for correlation analysis. Regression analysis was also conducted where the unemployment rate in India was dependent variable and number of acquisitions, value of acquisition, number of mergers, CPI, IIP, BSE Sensex trading volume, trade balance, central government expenditure were independent variables, where data was collected from January 2016 to November 2020 on monthly basis. The result indicated a negative and weak correlation between the mining and service industries mergers with the number of employees in the industries and positive yet weak correlation between manufacturing industry and real estate and construction industry mergers with the employment in the industry, but these results were insignificant. Regression analysis result deduced that number of acquisition, inflation, and trade balance had a positive yet insignificant impact on the unemployment rate in India, and acquisition value, number of mergers, IIP, BSE Sensex Trading volume, trade balance, and central government expenditure had a negative impact on the unemployment rate in India but insignificant, except IIP. Results indicate that volume of transactions and number of mergers and acquisitions had a distinctive impact on the unemployment level and industry specific

research is required for the identification of oligopoly and oligopsony.

Keywords: Mergers and acquisitions, unemployment rate, market power, oligopoly, oligopsony

1. INTRODUCTION

On the global level, India is experiencing fluctuations in the growth rate, with changes in the corporate sector, exchange rates, and stock market. With the movement in the market, mergers and acquisitions in the country have also increased. In 2019, India has experienced 1925 deals with \$128 billion values, however, due to the outbreak of global pandemic Covid-19, the merger and acquisition deals declined to 1756 with \$82 billion in value which includes local consolidation, foreign companies deal and international transactions by Indian companies [1]. In India, mergers and acquisitions are being governed by the Companies Act, 2013 for the general framework, Indian Contract Act, 1872 for contract and rights of the parties, the Specific Relief Act, 1963 for remedies on breach of contract, Income Tax, 1961 for taxation related aspects, Competition Act, 2002 to prohibit anti-competition acts ex-ante, Foreign Exchange Management Act, 1999 for FDI and RBI regulations, SEBI, 1992 for regulations related to the securities market and numerous other government-related laws on labour legislation [2]. Substantially, mergers and acquisitions are being done with the aim of potential growth,

diversification, economies of scale, and increase in market share, however, with these positive effects, the increase in the mergers and acquisitions in a particular sector can increase the market concentration in input market too. Mergers and acquisitions in the industry impact employment levels also. With the concentration of powers in limited hands, the human capital assets are generally overlooked during mergers which generally define the company's success in the venture. Moreover, with the high market power in industries due to merger and acquisition, the companies can abuse their dominant position in the product market by increasing price or any other conduct such as abusive vertical agreement and can also behave as a dominant buyer in the labour market, where the supply of labour is high but due to the concentration of power, the demand is low, which can result in oligopsony or monopsony and sometimes abusive conduct per se. Monopoly/Oligopoly in the product market could result in monopsony/oligopsony in the labour market of the industry, which thereby can result in an increase in unemployment due to lower demand and high supply [3].

The paper aims to analyse the influence of mergers and acquisitions on the unemployment rate in India. The research study has evaluated the impact of number of mergers, number of acquisitions, volume of acquisition on India's unemployment level. The study also assesses the effect of other factors on unemployment in India. Additionally, the research focused on analysing the relationship between employment and mergers in specific sectors. The study also descriptively explores the literature on the labour market condition due to mergers and acquisitions. Furthermore, secondary data has been collected and analysed using different statistical tools. Then, the results are compared with the existing literature on the mergers, acquisitions and unemployment and finally, the research is concluded with

recommendations for policy implications and limitations of the study.

2. LITERATURE REVIEW

Various factors are determining the unemployment rate in a country, however, labour market and population of the country are some of the most significant factors in the study of unemployment. Moreover, the industrial sector has a positive but minimal effect on unemployment [4]. The relationship between inflation and unemployment explained by the Phillips curve is also important [5]. However, there is also a possibility that inflation has a positive effect on the unemployment rate which can be due to inflation targeting regime and low unemployment levels which result in the generation of employment in the region [6,7]. When analysed for G10 countries, expansionary macroeconomic policies while result in triggering the aggregate demand also plays a major role in determining the unemployment level. Moreover, the increase in education expenses and total value added for industry can result in reducing the unemployment rate [8]. The stock market also affects the unemployment rate but indirectly as the stock market determines the economic growth and in result, influences the employment level. However, the unemployment level and Sensex are negatively related [9]. Negative Granger non-causality effects of trade balance have also been realised on unemployment level, which indicates that with the trade liberalisation the aggregate productivity and efficiency improved resulting in low unemployment and better economic growth [10]. Finally, private investments in a country can increase the employment level, however, there are studies that indicate no relationship between the employment level and government expenditure [11].

Mergers and acquisitions (M&A) influences the performance of organisations, but also affects the economic performance of the industry and thereby economic growth of the country. M&A results in a positive impact on Return on Assets, Return

on Equity, and other ratios of the company [12]. However, with the changes in economic performance, the human capital of the company and industry is also guided by M&A. The company might encounter issues like unbalanced structure, change management, absence of common vision, conflict culture, and others which can result in failure of M&A due to human resource issues [13]. However, with the impact on the micro-level, the impact of merger and acquisition can be seen on macro level too. Researchers conclude that there might be a stochastic relationship between M&A transactions and GDP, FDI of a country [14]. However, another research contradicts that it does not contribute to economic growth and it has a negative effect on the manufacturing M&A, whereas positive effect in the service sector M&A was encountered [15]. Moreover, few pieces of research evaluate the impact of M&A on the unemployment level of the country. It has been reported that the value of the M&A transaction and the number of mergers has opposite impact on the unemployment level [16]. On the contrary, it has been deduced that merger activities are followed by a decrease in labour demand due to efficiency in the labour utilisation and output changes [17].

The merger and acquisition in an industry can also result in the concentration in the labour market. It can be inferred from the researches that competition in the product market can result in competition in the labour market too as unions cannot survive in the competitive environment, however, with the change in the product market setting from quantity setting to price setting, the positive employment results can also be seen [18]. The decision of the firms in the product market can also affect the labour market as higher market concentration can reduce employment and wages in an economy. Moreover, competition policies can also result in an improvement in the labour market and employment level [19]. Literature also provides such instances where due to

oligopolistic market structure, firms understock the market while increasing the price and due to lower production, the demand curve in the labour market becomes more elastic resulting in increased market power in both hands and increasing the unemployment and pricing [20]. However, it has also been deduced from the literature that with the integration of the international product market there is a lower concentration of the market power in the product market but not in the labour market, whereas, the integration in the input market results in lower market power in labour market but not in the product market [21]. Instances have also been recorded where the oligopsony market power was greater than the oligopoly market power, which results in affecting the labour demand of the market [22]. The approvals of the mergers and acquisitions can result in the development of oligopoly market structure in the product market, which according to the literature can develop oligopsony in the labour market, thereby affecting the labour market indicators such as the unemployment rate. Due to this, the research on the relationship between merger and acquisition deals and unemployment level is significant.

3. MATERIAL AND METHODS

The study is based on analysing the impact of mergers and acquisitions on unemployment and industries of India. To examine the research questions, the quantitative research method has been used for higher objectivity and to exclude the possibility of biasness in the research. The quantitative data is collected from the Centre for Monitoring Indian Economy (CMIE) database. Data on the number of acquisitions, value of acquisition, number of mergers, CPI, IIP, BSE trading volume, trade balance, central government expenditure and, unemployment rate has been collected from January 2016 to November 2020 on monthly basis. Data related to mergers in the manufacturing industry, service industry, mining industry and, real estate and construction industry

with the employed person in each industry has been collected on quarterly basis from March 2016 to September 2020. These industries have been selected on random sampling.

4. STATISTICAL METHODS

The collected data from CMIE has been analysed using SPSS (Statistical Package for the Social Science) tool. Descriptive statistics, linear regression analysis, and Pearson correlation analysis have been conducted with 0.05 and 0.10 as significance levels. To identify the features of variables, descriptive statistics of each variable have been computed. The regression analysis has been conducted where dependent variable is unemployment rate and independent variables are number of acquisitions, value of acquisitions, number of mergers, CPI, IIP, BSE trading volume, trade balance, central government expenditure. Factors other than merger and acquisition have been selected to capture the impact of factors other than merger and acquisition too on unemployment level. Correlation analysis has been done between the number of mergers in selected industries and people employed in those industries to analyse the relation on narrowed down data.

4.1 Hypotheses

Following are the developed hypotheses for research:

Hypothesis 1:

Null hypothesis, H_0 : There is no significant effect of mergers and acquisition on unemployment in India

Alternate hypothesis, H_A : There is significant effect of mergers and acquisition on unemployment in India

Hypothesis 2:

Null hypothesis, H_0 : There is no significant relationship between people employed and number of mergers in the industry.

Alternate hypothesis, H_A : There is significant relationship between people

employed and number of mergers in the industry.

4.2 Empirical Model

The study intends to analyse the impact of mergers and acquisitions on the unemployment rate of India ceteris paribus. The empirical model is expressed below:
$$UnR = \alpha + \beta_1AQ + \beta_2AQValue + \beta_3Merger + \beta_4CPI + \beta_5IIP + \beta_6BSE\ volume + \beta_7TB + \beta_8Govt\ Exp$$

Where,

UnR is unemployment rate in India

AQ is number of acquisitions

AQ Value is value of acquisitions in millions

Merger is number of mergers

CPI is consumer price index

IIP is Index of industrial production

BSE volume is BSE Sensex trading volume

TB is trade balance

Govt Exp is central government expenditure

α is intercept and β_1 to β_7 are coefficients to be estimated

The following section presents the findings of the statistical analysis done using SPSS software.

5. RESULTS

5.1 Descriptive Statistics

The descriptive statistics explains the basic features of the data collected. The results of the descriptive statistics as indicated in Table 1 explain that the average number of acquisition and mergers in India in a month were 62 and 31 respectively and the average value of the monthly acquisition was Rs.92233 million. Moreover, the monthly average of the Consumer Price Index was 139.497 which even reached 158.9 since January 2016. The minimum, maximum and average value of Trade Balance and BSE Trading value had a vast gap, which can indicate the level of fluctuations in these two variables. The average unemployment rate in India was near 7%, however, it had reached 23.52% due to global pandemic Covid-19. The descriptive statistics of other variables

indicated that the maximum mergers from estate and construction, followed by the the selected industries are approved in real service industry.

Table 1: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
AQ	59	14	131	62.86	22.373
AQ Value	59	19861.700000000000	998422.200000000000	92233.72036854776000	9223.372036854777000
Mergers	59	7.0000000	106.0000000	31.286856412	16.7558532455
CPI	59	126.0	158.9	139.476	8.7352
IIP	59	54.0	144.1	123.442	12.4117
BSE volume	59	52730.800000000000	2891067.300000000000	710321.8008474576000	92233.72036854776000
TB	59	-1325671.300000000000	53546.600000000000	-790061.6491525425000	92233.72036854776000
Govt Exp	59	1195330	3133180	1950120.17	490629.117
UnR	59	3.37	23.52	7.2812	3.30847
Manufacturing merger	19	13	49	32.16	10.652
Manufacturing employment	19	24566070	52159499	41215451.21	7423198.943
services merger	19	3	63	31.00	16.823
services employment	19	128344364	156869399	145958518.21	8855373.664
mining merger	19	0	1	.16	.375
mining employment	19	721714	1751151	1208084.63	303360.186
real estate and construction merger	19	0	74	17.68	18.682
real estate and construction employment	19	28158093	72543634	63946481.63	9875481.181

5.2 Correlation Analysis

Table 2: Correlation Matrices

Manufacturing Industries Correlation Matrix		Manufacturing merger	Manufacturing employment
Manufacturing merger	Pearson Correlation	1	0.433
	Sig. (2-tailed)		0.064
	N	19	19
Service Industry Correlation Matrix		Service merger	Service employment
Service merger	Pearson Correlation	1	-0.063
	Sig. (2-tailed)		0.798
	N	19	19
Mining Industry Correlation Matrix		Mining merger	Mining employment
Mining merger	Pearson Correlation	1	-0.007
	Sig. (2-tailed)		0.977
	N	19	19
Real estate and construction industry correlation Matrix		real estate and construction merger	real estate and construction employment
real estate and construction merger	Pearson Correlation	1	0.414
	Sig. (2-tailed)		0.078
	N	19	19

The correlation matrices in Table 2 indicate that there was a negative relationship between the mining industry and service industry mergers with the number of employees in the industry. Moreover, it also indicated contradictory results that there was a positive relationship between manufacturing industry and real estate and construction industry mergers with the number of employees in these

industries. However, the relationships between the number of mergers in these industries and employees in the industry were weak and insignificant. Based on this, we fail to reject the null hypothesis and conclude that there was no significant relationship between people employed and the number of mergers in the selected industries.

5.3 Linear Regression Analysis

Following are the results of the linear regression analysis:

Table 3: Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.811 ^a	.658	.603	2.08428	1.159

a. Predictors: (Constant), Govt Exp, BSE volume , TB, AQ Value, Mergers , IIP, CPI, AQ
 b. Dependent Variable: UnR

Table 4: ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	417.656	8	52.207	12.018	.000 ^b
	Residual	217.212	50	4.344		
	Total	634.868	58			

a. Dependent Variable: UnR
 b. Predictors: (Constant), Govt Exp, BSE volume , TB, AQ Value, Mergers , IIP, CPI, AQ

Table 5: Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	19.867	6.331		3.138	.003		
	AQ	.005	.020	.036	.274	.786	.388	2.575
	AQ Value	-9.081E-8	.000	-.005	-.051	.960	.663	1.508
	Mergers	-.007	.020	-.034	-.334	.740	.647	1.546
	CPI	.089	.045	.235	1.970	.054	.481	2.077
	IIP	-.186	.031	-.696	-6.074	.000	.521	1.921
	BSE volume	-1.286E-6	.000	-.136	-1.397	.169	.726	1.378
	TB	1.214E-6	.000	.107	1.058	.295	.673	1.487
	Govt Exp	-1.576E-7	.000	-.023	-.236	.814	.701	1.427

a. Dependent Variable: UnR

The value of the adjusted R square mentioned in Table 3 indicates that 60.30% of the dependent variable is explained by the selected independent variables and was a good fit for the model. The F(8,50) value as mentioned in Table 4 was 12.018 based on which the null hypothesis was rejected and deduce that the model was significant. Moreover, the p significance value was 0.000, which also indicated that the regression model was significant. Moreover, with the DW-value of 1.159 with n=59, k= 8, dl 1.144, and du=1.726, it was deduced that there was no autocorrelation in the data [23]. The low VIF values indicate no multi-collinearity among the variables and by regressing the independent variables on the square of unstandardized variable, the computed significance level was 0.20, which indicated no heteroscedasticity in the model.

As evident in Table 5, with 0.05 as significance level, IIP (Index of Industrial performance) had significant but negative relationship with unemployment rate in India, which indicated that with the increase

in 1 unit of IIP, there would be 0.186 units fall in the unemployment rate. If the significance level was increased to 0.10 then CPI (consumer price index) with p-value of 0.54 would have a significant relationship with unemployment rate and with one-unit increase in CPI, there would be 0.89 units increase in the level of unemployment in India. However, other variables remain statistically insignificant. Nevertheless, the effect of the number of mergers and acquisition value on the unemployment level was negative and the impact of number of acquisitions on the unemployment rate was positive. Moreover, BSE Sensex trading volume and central government expenditure had a negative impact on the unemployment rate and trade balance had a positive yet minuscule and insignificant effect on unemployment rate of India. Based on the insignificant relationship between unemployment rate and acquisition and merger variables, we fail to reject the null hypothesis and it had been deduced that there was no significant

effect of mergers and acquisitions on unemployment in India.

6. DISCUSSION

The statistical results indicate that there is a positive impact of number of acquisitions (takeover of one firm over another) on unemployment level, whereas the value of acquisitions is negatively related to it, comprehending that with the increase in concentration in the market power, the unemployment will increase, which supports the findings of Azar and Vives [19] and Okafor [16]. Moreover, the results are also in accordance with the results of Okafor [16] that it is the value of the acquisition which results in a rise in the employment level in the country. The number of mergers is also negatively related to the unemployment rate in India, which indicates that when two or more firms' merge to work together and the market power remains in both hands, it results in increasing the employment in the country, supporting the results of Correa Lopez [18]. However, the relationship of the number of mergers, number of acquisitions, and value of acquisitions with the unemployment level in India is insignificant.

The regression results also indicate that with the increase in inflation, the unemployment level will increase, contradicting the Phillips curve and supporting the results of Falowewo and Adeboje [6], however, the results are insignificant. Moreover, the Index of Industrial Performance has negative and significant impact on the unemployment rate in India contradicting the research results of Pushpadjuita [4] and indicating that with the improvement in the industrial performance of the country, there is a possibility of a decrease in the unemployment contributing to the economic growth. The BSE Sensex trading value also has a negative yet insignificant effect on the unemployment rate in India supporting the research of Garg and Kalra [9] and indirectly contributing to the economic growth. Moreover, the negative effect of the trade

balance of India on unemployment rate has also been supported by the research of Loganathan, Sukemi and Kogid [10], which deduce that with the improvement in the trade balance of country with more export and lower import, there will be more domestic production, which can result in reducing the unemployment levels in the country. Finally, the government expenditure had negative but insignificant impact on the unemployment level in India, indicating that with the increase in the government expenditure in various sectors, the unemployment level can reduce which contradicts the research of Muammil [11].

The correlation matrix indicates that there is positive relationship between the mergers and acquisition deals and employment in manufacturing and real estate and construction industries and negative relationship in service and mining industries. This contradicts the research of Doytch and Cakan [15], where the relationship was explained between economic growth and M&A in service and manufacturing industries. The research might indicate that mergers and acquisitions in the manufacturing industry and service industry have opposite impact on the unemployment rate in India, mining industry being the exception.

In India, there is an increase in the approvals of mergers and acquisitions and with this, there is impact on the product as well as the input market. India has rules and regulations such as Competition Act, 2002 to control the market concentration in the product market but the concentration in the labour market needs to be evaluated and considered by the government. Moreover, during the merger assessment, the impact on the labour market is not considered due to the assumption that it is not a relevant product market. However, from the research, it is evident that there is a possibility of mergers and acquisitions affecting the unemployment level in India, which needs to be regulated and assessed by the government and scholars. However, the conducted research was limited due to the

availability of data for every month and variables impacting the unemployment rate. Moreover, industry-specific research is also requisite.

7. CONCLUSION

The research concludes that the unemployment rate is differently affected by the value of acquisitions, number of mergers and number of acquisitions. It also infers that factors other than merger and acquisition can have an impact on unemployment, where there is a possibility of contradicting the Phillips curve due to inflation targeting policy. Moreover, the relationship of merger and acquisition with the unemployment rate is industry-specific and needs to be evaluated in the future. While influencing the economic condition at the firm level, mergers and acquisitions can also guide the changes in economic factors at the national level.

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