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# IS THERE ANY RELATIONSHIP BETWEEN SALARY AND STAFF WELFARE EXPENSES AND THE PERFORMANCE OF THE COMPANY?

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The purpose of this paper is to examine the effect of Employee benefits like salary and staff welfare expenses on the performance of the company. We studied the salary expenses per employee as well as staff welfare expenses per employee and the revenue per employee as well as PBDITA per employee for the two consecutive financial years. Correlation and Regression analysis was used. Analysis reveals that Salary per employee has a moderating effect on firm performance measured as Revenue per employee, irrespective of industry. However, this study covered S&P CNX 500 index companies only. This study makes an interesting contribution to the understanding of the relationship between salary expenses and firm performance.

Keywords: Salary Expenses per Employee, Revenue, Staff Welfare expenses

### INTRODUCTION

Firm Performance as measured by total company revenue is a significant factor in determining base salary, cash bonuses, perks and cash awards. With the volatility in the economy and the stock market, operating and non-operating costs have become the major areas of cost cutting for the companies. When most companies report favorable results, quarter after quarter and year after year during the good phase, nobody actually pays attention to the salary costs and the staff welfare and training expenses of the companies. But during the down cycle of the business and economy, the focus shifts heavily to the cost

cutting to maintain the profitability levels. In spite of all the difficulties companies cannot afford to ignore certain factors like inflation adjusted pay, shortage of talent, performance linked pay, etc.

As an academician, it is always interesting to study the relationship between changes in revenue and the changes in salary and staff welfare expenses. Also it will be interesting to study the relationship between changes in operating profit and changes in salary and staff welfare expenses.

Our study was conducted for the year 2011-12 and 2012-13. We used S&P 500 index

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companies to study the relationship between revenue and salary and staff welfare expenses.

### LITERATURE REVIEW

There has been a great deal of academic research on executive compensation starting in the late 1950's.

Catherine T Jeppson *et al.* (2009) studied relationship between CEO compensation and several measures of firm performance across wide variety of industries. Using step-wise regression, they observed that coefficient of correlation was quiet insignificant contrary to their expectations.

Kostiuk (1990) and Baker et al. (1988) published articles about firm size and executive compensation. Murphy (1999) observed that while companies use a variety of financial and nonfinancial measures in their annual bonus plans for executives most use a single measurement such as revenues, net income, pre-tax income, operating profits (EBIT), or economic value added.

Murphy (1999) wrote a paper on "Executive compensation" which summarized empirical and theoretical research on executive compensation and description of trends in pay practices for CEO pay. He observed that pay practices vary across firms, industries, and countries. There has been a dramatic shift in pay practices over time (more pay and more forms of compensation).

Murphy and Zabojnik (2004) wrote an article and observed that some people believe that recent increases in pay reflect increased power that self-dealing CEOs wield over captive boards. This increased power, the argument goes, allows the CEOs to extract more "rents" from their companies, at the expense of the companies'

workers and shareholders. They argued that the "rent-extraction" explanation is not entirely convincing, and they offered a market-based explanation of the recent trends. Increases in executive compensation can be explained by an increase in the importance of general skills, as opposed to firm-specific knowledge, to manage modern corporations.

Kamery (2004) discovered that new compensation disclosures changed the determinants of pay. Boards of directors which formerly looked at peer group performance within or outside of the industry (market based measures) had to focus more on financial indicators of firm performance. They looked at periods before and after 1993 when the SEC required boards to justify their reasons for the level of CEO compensation.

Nourayi and Daroca (2008) examined pay in companies in both regulated and unregulated industries and relative to sales, number of employees, and the nature of the business (in terms of new-economy and old-economy).

Nourayi and Mintz (2008) looked at the influence of firm performance and CEO cash and total compensation based on time in that position .Firm size appeared to be a significant explanatory variable for CEO cash and total compensation regardless of CEO tenure and measure of performance.

Kuen-Hung *et al.* (2005) examined the moderating effect of employee benefits on the relationship between labor input and firm output. They report that employee benefits have moderating effect on firm productivity but their findings were restricted to electronics industry only.

Prior research studies have found a small but

significant link between total CEO compensation and firm performance. However, these studies used relatively old data or focused on traditional forms of pay without adequate consideration of stock awards and options. The data used in these studies was extracted from annual reports or shareholder proxy statements under the old SEC reporting rules. Our study looked at the relationship between % change in revenue per employee and % change in salary per employee which was not studied by the earlier researchers.

### RESEARCH DESIGN AND HYPOTHESIS

Our study used a sample of S&P 500 index companies for the two consecutive financial years 2011-12 and 2012-13. S&P500 index stocks are assumed to be the one of the best and consistently performing companies in the market with best disclosure practices. We used prowess which is software by CMIE to collect the data inputs like no of employees, salary expenses, staff welfare expenses, revenues and PBDITA.

There is no consensus of the measures of firm performance and various studies have used a variety of financial and non-financial measures. Correlation and regression were used to test

various hypotheses. We expected that change in revenue per employee and change in salary expenses per employee to be directed related. Also we expected that change in operating performance measured as PBDITA per employee will be related to change in salary per employee or change in staff welfare expenses per employee.

Descriptive statistics for companies included in the sample is presented in <u>Table 1</u>. The change in revenue per employee ranged from 248.32% to –100% whereas change in salary expenses per employee ranged from 424.96% to –52.04%. The employee turnover witnessed by the sample ranged from 180.75% to –100% during the period of observation.

Table 2 provides the detailed summary of the variables used for the study and to calculate the details provided in Table 1.

### VARIABLES USED FOR THE STUDY

We used following variables for our study.

 % Change in revenue per employee: It is calculated as the difference between revenue per employee of year 2012-13 and revenue

	Table 1: Descriptive Statistics							
	% Change in Staff Welfare Per Employee	% Change in Salary Per Employee	% Change in Revenue Per Employee	% Change in PBDITA/Employee	% Change in Employees			
Mean	12.20750172	12.14355665	10.22103478	15.26110185	2.206566137			
Median	9.257459895	8.990253914	11.94298876	3.944163698	2.696260986			
SD	38.79145446	36.5067596	32.07064102	270.1870235	29.63597503			
Minimum	-70.12220818	-52.04064201	-100	-893.710087	-100			
Maximum	268.0617394	424.9605351	248.3227632	4426.207605	180.75			

	Table 2: Descriptive Summary of Variables used for Study											
	No. of Employees 2011	No. of Employees 2012	PBDITA 2011	PBDITA 2012	Sales 2011	Sales 2012	Revenue per Employee 2011	Revenue per Employee 2012	Salaries, Wages, Bonus, Exgratia PF&Gratuities Paid 2011	Salaries, Wages, Bonus, Exgratia PF&Gratuities Paid 2012	Staff Welfare & Training Expenses 2011	Staff Welfare & Training Expenses 2012
Mean	9679	10311	8261	8935	86023	104805	16	17	5558	6393	349	361
Median	3417	3533	2261	2278	18366	20469	6	6	1390	1612	64	76
SD	21754	23519	41253	45237	309299	386738	46	57	15677	18289	1027	1005
Minimum	10	10	-229992	-250029	5	3	0	0	21	16	0	0
Maximum	222933	215481	438615	510909	3578712	4268759	471	725	138680	178207	8878	10454

per employee of year 2011-12 divided by the revenue per employee of year 2011-12.

- % Change in salary expenses per employee: It is calculated as the difference between salary expenses per employee of year 2012-13 and salary expenses per employee of year 2011-12 divided by the salary expenses per employee of year 2011-12.
- 3. % Change in Staff welfare expenses per employee: It is calculated as the difference between staff welfare expenses per employee of year 2012-13 and staff welfare expenses per employee of year 2011-12 divided by the staff welfare expenses per employee of year 2011-12.
- 4. % Change in PBDITA per employee: It is calculated as the difference between PBDITA per employee of year 2012-13 and PBDITA per employee of year 2011-12 divided by the PBDITA per employee of year 2011-12.
- % Change in employee: It is calculated as the difference between No. of employee of year 2012-13 and No. of employee of year 2011-12 divided by the No. of employee of year 2011-12.

## CORRELATION ANALYSIS AND RESULTS

The result of the study are presented in Table 3 and showed a positive correlation between % change in revenue per employee and % change in salary expenses per employee. Also a positive correlation was observed between % change in revenue per employee and % change in Staff welfare expenses per employee. But these correlations are not very strong.

However no significant correlation was observed between % change in PBDITA per employee and % change in salary expenses per employee. Similarly correlation was insignificant between % change in PBDITA per employee and % change in Staff welfare expenses per employee and % change in revenue per employee.

## REGRESSION ANALYSIS AND RESULTS

We set up several regressions with % change is Revenue per employee as a dependent variable and % change in salary expenses per employee, % change in Staff welfare expenses per employee and % change in employee as independent variables. We also regressed % change in

Table 3: Correlation Analysis								
	% Change in Staff Welfare Per Employee	% Change in Salary Per Employee	% Change in Revenue Per Employee	% Change in PBDITA/Employee	% Change in Employees			
%changein staff welfare	1							
%change in salary per employee	0.4505203	1						
% change in revenue per employee	0.2515921	0.506394069	1					
%changein PBDITA/ employee	-0.031047	-0.00739692	-0.0650088	1				
% change in employees	0.0740594	-0.237606	-0.3468	0.087845806	1			

PBDITA per employee against the above independent variables.

From the results presented in Table 4, we find

that at 95% significance level 28.48% variation in % change in revenue can be explained by % change in employees and % change in staff

Table 4: Regression Results						
Dependent variable - % Change in Revenue						
R Square	0.292564901					
Adjusted R Square	0.284109502					
	Coefficients	t Stat	P-value			
Intercept	5.518787123	2.614432566	0.009478			
% change in employees	-0.280755512	-2.626710599	0.009152			
%changein staff welfare	-0.00358429	-0.065307173	0.947981			
%change in salary per employee	0.659080842	7.000200935	0.00			
Dependent variable- %change in PBDITA Per Em	ployee					
R Square	0.01386313					
Adjusted R Square	0.002076634					
	Coefficients	t Stat	P-value			
Intercept	0.282273162	0.012539329	0.990005			
% change in employees	2.039407585	1.789199976	0.074788			
%changein staff welfare	-0.333799209	-0.570313984	0.568975			
%change in salary per employee	0.747363197	0.744345289	0.457364			

welfare and % change in salary per employee with p-value for % change in employee and % change in salary per employees found to be significant (p<0.05).

However the regression for the % change in PBDITA per employee did not work as r<sup>2</sup> were found to be insignificant.

#### SUMMARY AND CONCLUSION

Based on the sample of S&PCNX 500 index companies, we studied the effect of salary per employee and staff welfare expenses per employee on the performance of the firm measured as revenue per employee and PBDITA per employee. While there is a presumed strong relationship between compensation and firm performance, we did not find this to be the case. We find that the effect of change in salary per employee or Staff welfare expenses per employee on firm performance is not statistically significant as the coefficient of determination is not very high. When we studied the effect of change in salary per employee and change in staff welfare expenses per employee on operating performance of the firm, no significant relationship was found due to weak coefficient of determination.

#### LIMITATIONS OF THE STUDY

The study covered only the index stocks which is a basket of all the industries. Findings might change if industry specific effects are incorporated in the study and the period of observation is changed. Also there are many measures of firm performance which we did not use. Further study and analysis are needed in this area.

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