

EFFECT OF MANAGERS INCENTIVE FOR PROFITABILITY ON STICKINESS OF OPERATING COST AT LARGE AND SMALL FIRMS

Marefat Salehi and *Roya Darabi

Department of Accounting, South Tehran Branch, Islamic Azad University, Tehran, Iran

**Author for Correspondence*

ABSTRACT

In this study, effect of managers incentive for profitability on stickiness of operating costs at large and small companies admitted in Tehran Stock Exchange during years 2008-2013 have been investigated. In total, there were 612 observations available in this research among which 302 observations were related to large companies and 310 cases were related to small companies. The statistical method used in this research was multivariate regression method. Results obtained from research hypotheses indicate that when managers make decisions with incentive for enhancing profitability, they emphasize on reducing stickiness of operating costs at large and small companies.

Keywords: *Stickiness of Costs, Enhancing Managers Incentive, Operating Costs*

INTRODUCTION

Knowledge about behavior of costs with respect to variations in level of activity or level of sales is among the most important information affecting managers decisions regarding planning and budgeting, products pricing, determining break-even point and other management issues (Namazi, 2011). In conventional models for costs behavior used in accounting management, variable costs increase or decreases proportionally with variations in volume of activity. In another word, magnitude of variations in costs depends on magnitude of variations in volume of activity and direction of variations (increasing or decreasing) in volume of activity does not influence magnitude of variations in costs (Horngren, 2008). Studies in recent years have suggested that amount of increase in costs caused by increased volume of activity is much higher than amount of decrease in costs due to decreasing volume of activity. Such behavior by costs is called cost sickness.

Costs sickness is one of the properties of cost behaviors with respect to variations in level of activities and indicates that magnitude of increase in costs during increasing level of activity is larger than magnitude of decrease in costs during decreasing the level of activity. In order to examine costs stickiness, for example, we can investigate how the decisions made by managers affect the adjustments in cost stickiness sources (Chen, 2012). In works by Anderson *et al.*, (2003) in which costs were called sticky, if sales decreases in the same degree as the increase in level of activity, there would be a less decrease in costs. Wedon (2012) studies how adjusting the sources, with purpose of enhancing profitability, can affect cost stickiness. When sales decrease, a portion of resources remain unused, unless managers make intentional decision to eliminate them. Managers stated that to eliminate unused resources, they prefer to hesitate when they expect the decrease in sales to be temporary. In this case, the decision not to remove unnecessary resources when there is a decrease in sales would maximize value of the company due to high costs associated with adjusting the resources (costs related to dismissing the employees) and restoring the resources when there is an increase in sales (Abel and Eberly, 1994). Although profit-seeking managers only pay attention to their own interests when they adjust the resources associated with activity and do not take any action for adjusting resources related to enterprise value (Cohen *et al.*, 2008). When the incentives are accompanied by the goal of enhancing profitability, the profit-seeking managers have tendency to remove the unused resources even when the decrease in sales is temporary. This increased inclination for elimination of unused resources, in spite of incentives for higher profitability, is caused by lack of incentive with the goal of profitability. Therefore, according to the concept of cost stickiness (Anderson *et al.*, 2003), incentives with the goal of higher profitability may decrease degree of cost stickiness.

Research Article

Finally, the main purpose of this study was to investigate effect of managers incentive for profitability on stickiness of operating costs in large and small firms. Finally, the main challenge in this article is to answer the question of whether manager incentive for profitability can affect stickiness of operating costs in large and small firms.

Literature Review

In a study by Cannon (2011), determining factors on costs stickiness at American air transport companies have been studied. It was found that if marginal cost caused by increase in capacity, at the time of increase in demands, is greater than the marginal benefits caused by decrease in capacity at time of decrease in demands, then the cost stickiness increases, and since decrease in price of a product due to decrease in demands is greater than increase in price of the product due to increase in demand, cost stickiness is more significant in case of decrease in demands than that of increase in demands.

In another study, Vice and Kama (2013) investigated effect of managers overconfidence in companies profitability on cost stickiness and result of this managers overconfidence is a allocation of resources from incomes and cost structures.

The general conclusion of testing the research hypotheses, in which the stickiness of operating, office, organizational, sales and distribution costs as well as effect of factors such as number of employees, incomes, and sale revenues on intensity of stickiness are considered as the control variables, is that operating, office, organizational, sales and distribution costs are sticky and intensity of stickiness for these costs decrease with increase in managers incentives for more profitability. This might be taken into account when analyzing the managers and examining managers works.

In a study conducted by Gha'emi and Ne'matoallhi in 2007, titled as “investigating behavior of sales and distribution, general and office costs as well as original price of a sold product in manufacturing companies” based an applied research, they studied the causal relationship between sale revenue, cost and costs stickiness during years 1996-2004 by analyzing the information available in income statements of companies admitted into stock exchange. In this study, in order to study cost stickiness using relationship between sale revenue and each of the above-mentioned costs, costs stickiness was investigated by three variables regression method whose results showed that the original price of a sold product and sales, distribution, general and office costs are sticky. In another study by the same authors, stickiness in raw materials costs, direct wage, production overhead, and financial costs were separately studied and according to the results reported by this study, overhead cost is sticky, while raw materials cost, direct wage and financial costs are non-sticky.

Research Theoretical Framework

Analysis of cost behavior is important not only to academic researchers, but also to those whose occupation is related to firms' activities. Based on conventional model for cost behavior well accepted in accounting literature, costs are divided into two groups according to variation with level of activity: fixed costs and variable costs. In this model, variations of the variable costs are proportional with change in cost driver, i.e. degree of costs variation depends on change in level of activities and not its direction (Anderson and Lanen, 2007).

The reason for costs stickiness is explained by costs behavior replacement model. This model assumes that managers carefully adjust the resources in response to a change in volume of activity. This model distinguishes the costs that change in proportion with volume of activity from the costs associated with resources adjustment by managers.

During decline in sales level, there is a doubt about future demands, and on the other hand, if managers limit the resources, then restoring the resources imposes adjustment costs, therefore, managers postpone the costs decrease until there is a clear view about stability of the demand decline (Medeiros and Costa, 2004).

Gran *et al.*, (2006) claimed that regardless of direction of the change (increasing or decreasing), costs react to variations in level of activity, while Norin and Sodrestrum (1997) and Anderson *et al.*, (2003) believed that cost increase during period of increased level of activity is greater than cost decrease during period of decreased level of activity; thus, costs decrease results in costs stickiness.

Research Article

Research Hypotheses

1. When managers make decisions with an incentive to enhance the profitability, they emphasize on decreasing the stickiness of operating costs in large firms.
2. When managers make decisions with an incentive to enhance the profitability, they emphasize on decreasing the stickiness of operating costs in small firms.

MATERIALS AND METHODS

Research Method

The current study is an applied research in terms of objective. Also, this research is based on correlation method. The study is carried out based on deductive-inductive reasoning framework. Statistical population of this study was the companies admitted into Tehran Stock Exchange during years 2008-2013. In order to collect the theoretical basis for the research, library method was applied. Income statements and attachment notes on income statements as well as basic information on stock exchange board have been used for collecting the statistical data. Moreover, the research hypotheses were tested using multivariate autoregressive model based on the proposed model. SPSS software was also used for the data analysis.

Research Variables

Model for the main hypothesis:

$$\Delta \ln oc_{it} = \beta_0 + \beta_1 Target_{it} + [\beta_2 + \beta_3 Target_{it}] \Delta \ln Rev_{it} + [\beta_4 + \beta_5 Target_{it}] REVDEC_{it} \Delta \ln REV_{it} + [\beta_6 SUC_DEC_{it} + \beta_7 ASINT_{it} + \beta_8 EMPINT_{it}] REVDEC_{it} \Delta \ln REV_{it} + \varepsilon_{it}$$

The expanded model for testing:

$$\Delta \ln oc_{it} = \beta_0 + \beta_1 Target_{it} + \beta_2 \Delta \ln Rev_{it} + \beta_3 Target_{it} \Delta \ln Rev_{it} + \beta_4 REVDEC_{it} \Delta \ln REV_{it} + \beta_5 Target_{it} REVDEC_{it} \Delta \ln REV_{it} + \beta_6 SUC_DEC_{it} REVDEC_{it} \Delta \ln REV_{it} + \beta_7 ASINT_{it} REVDEC_{it} \Delta \ln REV_{it} + \beta_8 EMPINT_{it} REVDEC_{it} \Delta \ln REV_{it} + \varepsilon_{it}$$

Oc = operating costs (annual sales revenues minus income from operations)

$\Delta \ln Rev_{it}$ = logarithmic change in sales revenue

$REVDEC_{it}$ = a dummy or imaginary variable which is equal to one if $REV_{it} < REV_{i,t-1}$, and equal to zero otherwise.

$$TARGET = \{ LOSS_{it}, EDEC_{it}, loss_{it} \cup EDEC_{it} \}$$

$TARGET$ = managers incentive for higher profitability

$LOSS_{it}$ = a dummy variable which is equal to one when ratio of net income for company i during year t to market capitalization at end of the year t-1 lies within the interval (0, 0.01), and equal to zero, otherwise.

$EDEC_{it}$ = a dummy variable which is equal to one when ratio of variations in net income for company i during year t to market capitalization at end of the year t-1 lies within the interval (0, 0.01), and equal to zero, otherwise.

$loss_{it} \cup EDEC_{it}$ = a dummy variable which is equal to one for either $Loss_{it}$ or $EDEC_{it}$, and equal to zero, otherwise.

SUC_DEC_{it} = a dummy variable which is equal to one when income during year t-1 is less than that during year t-2 and equal to zero, otherwise.

$ASINT_{it}$ = logarithm of ratio of total assets to sale revenue.

$EMPINT_{it}$ = logarithm of ratio of total number of employees to sales revenue.

Research Article

Since the statistical population in this study includes different companies at various industries and different sizes, thus using this model which is based on logarithmic indices improves the comparison of variables among the companies and provides a normalized interpretation for the evaluated factor. Since value of variable $REVDEC_{it}$ is zero during increase in income, therefore, factor $\beta_2 + \beta_3 > \beta_5$ shows the increase percent in operating costs caused by 1% increase in sales revenue.

RESULTS AND DISCUSSION

Research Findings

Examining Normalized Variables Hypothesis

Since normality of variables depends on normality of model residuals; normality of the model must be examined before fitting the model. In order to test normalized variables hypothesis, Kolmogorov–Smirnov test was used. In this test, when significance level is less than 5%, the null hypothesis is rejected at level of 95%.

H₀= Data has a normal distribution.

H₁= Data do not have a normal distribution.

Table 1: Kolmogorov–Smirnov test (K-S)

	Large Firms	Small Firms
Acronym	Ln OC	Ln OC
Number of Data	302	310
Mean	13.807601	11.531086
Standard Deviation	1.3397289	1.9362467
Maximum Absolute Deviation	0.139	0.245
Maximum Positive Deviation	0.104	0.245
Maximum Negative Deviation	-0.139	-0.231
Value of Statistic Z	2.412	4.316
Significance Level	0.000	0.000

According to table (1), since significance level for variables is smaller than 0.05, the data do not have normal distribution. To normalize the variables, a mathematical transformation (logarithm of power 2) has been used. Following test examines normal distribution of the transformed variables.

Table 2: Kolmogorov–Smirnov test (K-S) for transformed variables

	Large Firms	Small Firms
Acronym	Ln OC	Ln OC
Number of Data	302	310
Mean	5.240869	4.923381
Standard Deviation	0.1977883	0.1608498
Maximum Absolute Deviation	0.148	0.166
Maximum Positive Deviation	0.084	0.127
Maximum Negative Deviation	-0.148	-0.166
Value of Statistic Z	2.57	2.929
Significance Level	0.084	0.081

According to table (2), since significance level for variables is greater than 0.05, hypothesis H₀ is accepted and hypothesis H₁ is rejected. In other words, data have normal distribution. Thus, hypothesis of normality of dependent variables in this study is accepted.

Research Article

Hypotheses Testing

First Hypothesis Testing

When managers make decisions with an incentive to enhance the profitability, they emphasize on decreasing the stickiness of operating costs in large firms.

The null hypothesis and its opposite hypothesis are defined as follows:

H₀: When managers make decisions with an incentive to enhance the profitability, they do not emphasize on decreasing the stickiness of operating costs in large firms.

H₁: When managers make decisions with an incentive to enhance the profitability, they emphasize on decreasing the stickiness of operating costs in large firms.

$$\begin{cases} H_0 : \rho = 0 \\ H_1 : \rho \neq 0 \end{cases}$$

Table 3: Correlation coefficient, coefficient of determination and Durbin–Watson test between managers incentive to enhance profitability and decrease in stickiness of operating costs

Correlation Coefficient	Coefficient of Determination	Modified Coefficient of Determination	Standard Error of Estimate	Durbin–Watson test
0/827 ^a	0/684	0/675	0/1127473	1/658

According to table 3, correlation coefficient between two variables of managers incentive to enhance profitability and decrease in stickiness of operating costs is equal to 0.827. This value, at error level of 5%, indicates that there is significant relationship between managers incentive to enhance profitability and decrease in stickiness of operating costs. According to result tables of SPSS software, it is evident that since the significance level is less than 5%, hypothesis H₀ is rejected at error level of 5%, and presence of correlation between the two variables is confirmed. Moreover, modified coefficient of determination was obtained as 0.675 which is an acceptable value and shows an acceptable fitting with variations of variable “decrease in stickiness of operating costs by managers incentive to enhance profitability”. One of the regression hypothesis is the error independence; if hypothesis of error independence is rejected, i.e. error are correlated to each other, it is not possible to use regression method. Durbin-Watson statistic is employed to examine errors independence; if value of Durbin-Watson statistic lies within interval 1.5-2.5, hypothesis stating that there is a correlation between errors is rejected and regression method can be applied. According to table 3, value of Durbin-Watson statistic is 1.658, which indicates that errors are independent from each other and there is no autocorrelation between errors; thus, the hypothesis of correlation between errors is rejected and regression can be utilized.

Table 4: Analysis of regression variance for managers incentive to enhance profitability and decrease in stickiness of operating costs

Model	Sum of Squares	Degree of Freedom	Mean Squares	Statistic F	Significance Level
Regression	8.051	8	1.006	79.164	.000 ^a
Residual	3.725	293	.013		
Total	11.775	301			

Table 4 shows the regression analysis between variables “decrease in stickiness of operating costs” as the dependent variable and “managers incentive to enhance profitability” as the independent variable; according to the output, overall significance of the regression model is tested by ANOVA table via following statistical hypotheses:

H₀= There is not a linear relationship between two variables.

H₁= There is a linear relationship between two variables.

According to the fact that the significance level is less than 5%, hypothesis that there is a linear relationship between the two variables is accepted. Now, this relationship must be determined:

Table 5: Coefficients of regression model for control and independent variables

Acronym	Non-standardized coefficients		Standardized coefficients			Collinearity Statistics	
	B	Standard Error, Column factor	Beta	t statistic	Significance level	Tolerance	Variance Inflation Factor
(Constant)	3.157	.120		26.347	.000		
TAR	-.984	.125	-.623	-7.872	.000	.867	1.153
<i>lnRev</i>	.149	.006	.822	23.668	.000	.894	1.118
<i>tar.lnrev</i>	.987	.114	.672	8.658	.000	.754	1.326
<i>REVDEC.lnRev</i>	-.142	.027	-.589	-5.259	.000	.757	1.322
<i>tar.REVDEC.ln REV</i>	.221	.023	.710	9.608	.000	.176	3.673
<i>SUC.DEC.REVDEC.lnRev</i>	-.123	.023	-.598	-5.348	.000	.174	3.746
<i>ASINT.REVDEC.lnRev</i>	-.742	.117	-.602	-6.342	.000	.487	2.053
<i>EMPINT.REVDEC.lnRev</i>	-.197	.040	-.556	-4.925	.000	.714	1.401

Output from table 5 and column B provide a constant value and independent variable coefficient in the regression equation, respectively; this equation has the following form:

$$\Delta \ln oc_{it} = 3.157 - .984 * Tar_{it} + .149 * \ln Rev_{it} + .987 * Tar_{it} \Delta \ln Rev_{it} - .142 * REVDEC_{it} \Delta \ln REV_{it} + 0.221 * Tar_{it} REVDEC_{it} \Delta \ln REV_{it} - .123 * SUC_DEC_{it} REVDEC_{it} \ln REV_{it} - .742 * ASINT_{it} REVDEC_{it} \ln REV_{it} - .197 EMPINT_{it} REVDEC_{it} \Delta \ln REV_{it}$$

According to output from table 5, other columns of this table present B-column standard factor, t statistic, and significance level which are used to test the hypothesis that each factor in B-column equals zero. Now, if β and α are assumed to be a constant value and slope of regression line for the population, respectively, hypotheses testing for these two values can be written as follows:

$$\begin{cases} H_0 : \beta = 0 \\ H_1 : \beta \neq 0 \end{cases} \quad \begin{cases} H_0 : \alpha = 0 \\ H_1 : \alpha \neq 0 \end{cases}$$

Since in this output (sig=0), test of equating regression coefficient with the constant value is zero and less than 5%, thus, hypothesis that value of these two coefficients is equal to zero is rejected and these coefficients must be removed from regression equation.

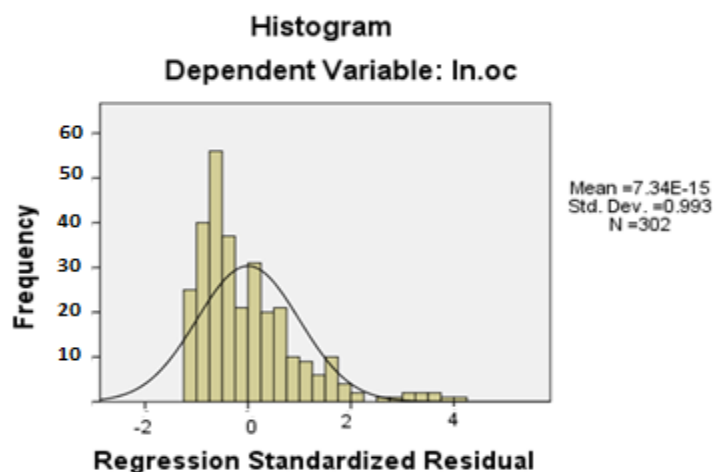


Figure 1: Test of normality of errors in regression equation for variables “managers incentive to enhance profitability” and “decrease in stickiness of operating costs”

Figure 1 tests normality of errors as another regression hypothesis. According to this hypothesis, errors in regression equation must have a normal distribution with zero mean; according to the above diagram, *Mean = 0 ,Std.Dev = .993* shown on right side of the diagram. Therefore, when this hypothesis is satisfied, regression can be employed for two variables “managers incentive to enhance profitability” with “decrease in stickiness of operating costs”.

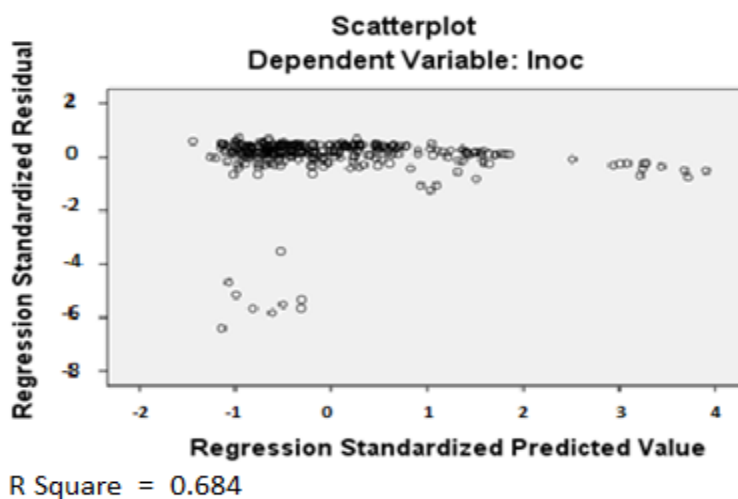


Figure 2: Regression line and equation

Figure 2 shows the related scatterplot as well as simple linear regression equation and coefficient of determination for two variables “managers incentive to enhance profitability” with “decrease in stickiness of operating costs”. These results are in agreement with results obtained from simple linear regression method.

Second Hypothesis Testing

When managers make decisions with an incentive to enhance the profitability, they emphasize on decreasing the stickiness of operating costs in small firms.

Null hypothesis and its opposite hypothesis are defined as follows:

H_0 = When managers make decisions with an incentive to enhance the profitability, they do not emphasize on decreasing the stickiness of operating costs in small firms.

Research Article

H₁= When managers make decisions with an incentive to enhance the profitability, they emphasize on decreasing the stickiness of operating costs in small firms.

$$\begin{cases} H_0 : \rho = 0 \\ H_1 : \rho \neq 0 \end{cases}$$

Table 6: Correlation coefficient, coefficient of determination and Durbin-Watson test for managers incentive to enhance profitability with decrease in stickiness of operating costs

Correlation Coefficient	Coefficient of Determination	Modified Coefficient of Determination	Standard Error of Estimate	Durbin-Watson Statistic
.691	.550	.472	.1314244	1.784

According to table 6, correlation coefficient between two variables of managers incentive to enhance profitability and decrease in stickiness of operating costs is equal to 0.691. This value, at error level of 5%, indicates that there is a significant relationship between managers incentive to enhance profitability and decrease in stickiness of operating costs.

According to result tables from SPSS software, it is evident that since the significance level is less than 5%, hypothesis H₀ is rejected at error level of 5%, and presence of correlation between the two variables is confirmed.

Moreover, modified coefficient of determination was obtained as 0.472 which is an acceptable value and shows an acceptable fitting with variations of variable “decrease in stickiness of operating costs by managers incentive to enhance profitability”. One of the regression hypothesis is the error independence; if hypothesis of error independence is rejected, and errors are correlated to each other, it is not possible to use regression method.

Durbin-Watson statistic is employed to examine errors independence; if value of Durbin-Watson statistic lies within interval 1.5-2.5, hypothesis stating that there is a correlation between errors is rejected and regression method can be applied.

According to table 6, value of Durbin-Watson statistic is 1.658, which indicates that errors are independent from each other and there is no autocorrelation between errors; thus, the hypothesis of correlation between errors is rejected and regression can be utilized.

Table 7: Analysis of variance and regression for managers incentive to enhance profitability and decrease in stickiness of operating costs

Model	Sum of Squares	Degree of Freedom	Mean Squares	F statistic	Significance Level
Regression	2.796	8	.349	20.232	.000 ^a
Residual	5.199	301	.017		
Total	7.995	309			

Table 7 shows the variance analysis between variables “decrease in stickiness of operating costs” as the dependent variable and “managers incentive to enhance profitability” as the independent variable; according to this output, overall significance of the regression model is tested by ANOVA table via following statistical hypotheses:

H₀= There is not a linear relationship between two variables.

H₁= There is a linear relationship between two variables.

Since significance level is less than 5%, hypothesis that there is a linear relationship between the two variables is accepted. Now, this relationship must be determined:

Table 8: Coefficients of regression equation for control and independent variables

Acronym	Non-Standardized Coefficients		Standardized Coefficients		Significance Level	Collinearity Statistics	
	B	Standard Error, Column Coefficient	Beta	t statistic		Tolerance	Variance Inflation Factor
(Constant)	4.449	.044		101.521	.000		
TAR	-.052	.015	-.311	-3.467	.000	.934	1.071
<i>lnRev</i>	.040	.003	.759	11.876	.000	.976	1.024
<i>tar.lnrev</i>	.122	.019	.549	6.421	.000	.567	1.763
<i>REVDEC.lnRev</i>	-.091	.029	-.302	-3.138	.000	.813	1.230
<i>tar.REVDEC.ln REV</i>	.023	.002	.740	11.501	.000	.827	1.209
<i>SUC.DEC.REVDEC.lnRev</i>	-.018	.005	-.337	-3.601	.000	.394	2.538
<i>ASINT.REVDEC.lnRev</i>	-.121	.016	-.573	-7.563	.000	.632	1.583
<i>EMPINT.REVDEC.lnRev</i>	-.048	.013	-.342	-3.692	.000	.855	1.170

Output from table 8 and column B provide a constant value and independent variable coefficient in the regression equation, respectively; this equation has the following form:

$$\Delta \ln oc_{it} = 4.449 - .052 * Tar_{it} + 0.40 * \Delta \ln Rev_{it} + 0.122 * Tar_{it} \Delta \ln Rev_{it} - .091 * REVDEC_{it} \Delta \ln REV_{it} + 0.23 * Tar_{it} REVDEC_{it} \Delta \ln REV_{it} - .018 * SUC_DEC_{it} REVDEC_{it} \Delta \ln REV_{it} - .121 * ASINT_{it} REVDEC_{it} \Delta \ln REV_{it} - 0.48 * EMPINT_{it} REVDEC_{it} \Delta \ln REV_{it}$$

According to output from table 8, other columns of this table present B-column standard factor, t statistic, and significance level which are used to test the hypothesis that each factor in B-column equals zero. Now, if β and α are assumed to be a constant value and slope of regression line for the population, respectively, hypotheses testing for these two values can be written as follows:

$$\begin{cases} H_0 : \beta = 0 \\ H_1 : \beta \neq 0 \end{cases} \quad \begin{cases} H_0 : \alpha = 0 \\ H_1 : \alpha \neq 0 \end{cases}$$

Since in this output (sig=0), test of equating regression coefficient with the constant value is zero and less than 5%, thus, hypothesis that value of these two coefficients is equal to zero is rejected and these coefficients must be removed from regression equation.

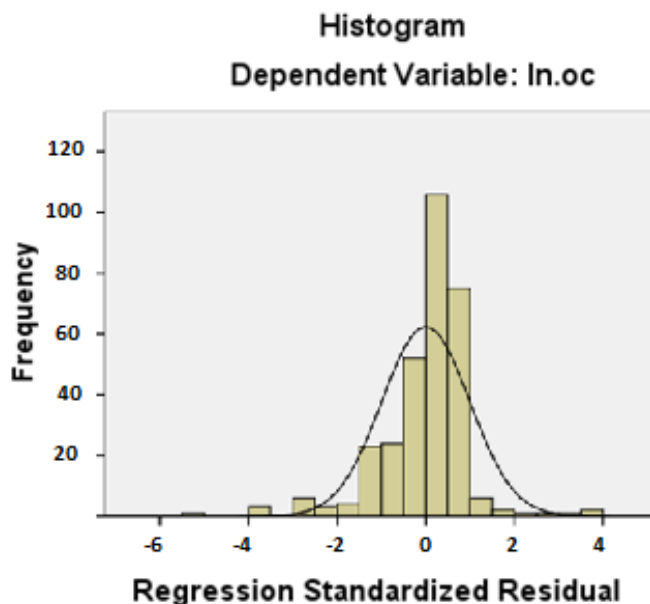


Figure 3: Test of Normality of Regression Equation for variables “managers incentive to enhance profitability” with “decrease in stickiness of operating costs”

Figure 3 tests normality of errors as another regression hypothesis. According to this hypothesis, errors in regression equation must have a normal distribution with zero mean; according to the above diagram, $Mean = 0$, $Std. Dev = .992$ which is shown on right side of the diagram. Therefore, when this hypothesis is satisfied, regression can be employed for two variables “managers incentive to enhance profitability” with “decrease in stickiness of operating costs”.

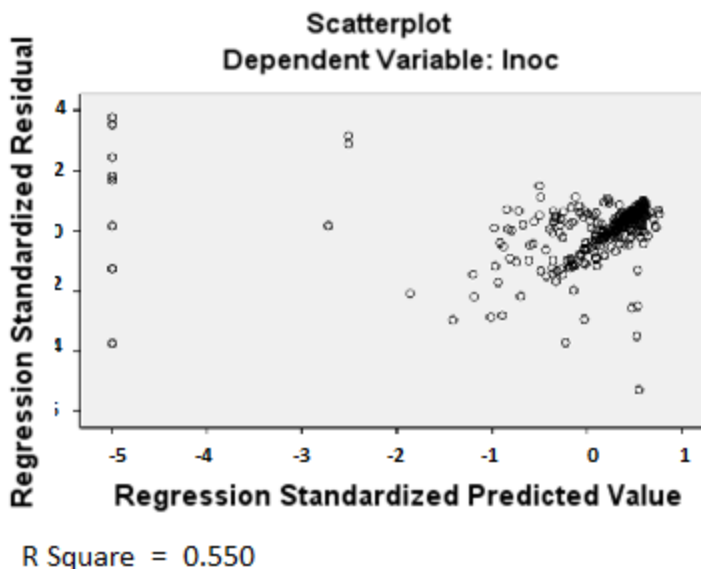


Figure 4: Regression line and equation

Figure 4 shows the related scatterplot as well as simple linear regression equation and coefficient of determination for the two variables “managers incentive to enhance profitability” with “decrease in stickiness of operating costs”. These results are in agreement with results obtained from simple linear regression method.

Research Article

Discussion and Conclusion

Main objective of this study was to investigate effect of managers incentive for higher profitability on stickiness of operating costs at large and small firms, admitted into Tehran Stock Exchange during years 2008-2013. In order to collect the theoretical basis for the research, library method was utilized. Also, income statements and attachment notes were used to collect the required statistical data. Furthermore, in order to analyze the data, multivariate regression method was used. Results of this study are as follows:

In the first hypothesis of this research, according to tests and analysis by regression and correlation methods, as shown in table (3), it can be concluded that there is a positive correlation between managers incentive to enhance profitability and stickiness of operating costs in firms admitted to Iran Stock Market with correlation value of 0.827; also in table (4), value of t-statistic is 79.164 and sig=0.000 which indicates that the multivariate regression is significant at confidence interval of 95%. Thus, hypothesis H_0 is rejected and there is a significant relationship between managers incentive to enhance profitability and stickiness of cooperating costs in firms admitted into Tehran Stock Exchange. Moreover, the t-statistic value obtained for variable “managers incentive to enhance profitability” indicates that coefficient of this variable is significant at level $\alpha=5\%$, in spite of control variables. Based on the results obtained in this study, there is an inverse correlation between managers incentive to enhance profitability and stickiness of operating costs at firms admitted into Tehran Stock Exchange. Results of this study are not in contrast to results of Itay kama and Weiss (2012 and 2013).

Also, in the second hypothesis of this study, according to tests and analysis by regression and correlation methods, as shown in table (6), it can be concluded that there is a positive correlation between managers incentive to enhance profitability and stickiness of operating costs in firms admitted to Iran Stock Market with correlation value of 0.691; also in table (7), value of t-statistic is equal to 20.232 and sig=0.000, which indicates that the multivariate regression is significant at confidence interval of 95%. Thus, hypothesis H_0 is rejected and there is a significant relationship between managers incentive to enhance profitability and stickiness of cooperating costs in firms admitted into Tehran Stock Exchange. Moreover, the t-statistic value obtained for variable “managers incentive to enhance profitability” indicates that coefficient of this variable is significant at level $\alpha=5\%$, in spite of control variables. Based on the results obtained in this study, there is an inverse correlation between managers incentive to enhance profitability and stickiness of operating costs at firms admitted into Tehran Stock Exchange. Results of this study are not in contrast to results of Itay kama and Weiss (2012 and 2013).

REFERENCES

- Anderson MC and Lanen W (2007).** Understanding Cost Management: What Can We Learn FROM THE Evidence on Sticky Costs?. Working Paper, Rice University, University of Michigan.
- Anderson MC, Banker R and Janakiraman S (2003).** Are Selling, General and Administrative Cost Sticky?. *Journal of Accounting Research* **41**(1) 47-63.
- Anderson MC, Banker R, Huang R and Janakiraman S (2007).** Cost Behavior and Fundamental Analysis of SG&A Cost. *Journal of Accounting, Auditing & Finance* **22**(1) 1-28.
- Cannon J (2011).** Determinants of “Sticky Costs.” An Analysis of Cost Behavior using United States Air Transportation Industry Data. Working Paper, College of Business, 2330 Gerdin Building, Iowa State University.
- Chen C, Lu H and Sougiannis T (2012).** The Agency Problem, Corporate Governance, and the Asymmetrical Behavior of Selling, General, and Administrative Costs. *Contemporary Accounting Research* **29**(1) 252–282.
- Horngren CT, Foster G and Datar SM (2008).** *Cost Accounting: A Managerial Emphasis* (Upper Saddle River, NJ: Prentice Hall) **9**. Ed Rio de Janeiro: LTC 2008.
- Itay Kama and Dan Weiss (2013).** Do Earnings Targets and Managerial Incentives Affect Sticky Costs?. *Journal of Accounting Research* **51**(1) Printed in U.S.A.
- Medeiros OR and Costa PS (2004).** Cost Stickiness in Brazilian Firms. Available at **SSRN**: <http://ssrn.com/abstract=632365>.

Research Article

Namazi Mohammad and Davani Pour Iraj (2011). Empirical Evaluation of The Sticky Behavior of Costs in The Tehran Stock Exchange market. *The Iranian Accounting And Auditing Review* **17**(62) 85 - 102.

Weiss D Kama (2012). Do earning target and managerial incentives affect sticky cost. Working Paper, Tel Aviv University.