

## **REGRESSION ANALYSIS AS A TOOL TO COMBAT UNCERTAINTY: AN EMPIRICAL EVIDENCE OF CMS'S OF ACADEMICIANS ADOPTED IN MANGALORE BUSINESS SCHOOLS**

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**Abstract:** Organisations have drastically changed in the past few decades. Decisions are much more complex and its outcomes are coupled with risk and uncertainty. The need of the hour is 'research' and the foundation for research is 'Statistics'. However, statistical reasoning is subject to various sources of uncertainty: randomness, imprecision, vagueness, partial ignorance, etc. Traditional statistical paradigms (such as Statistical Inference, Exploratory Data Analysis, and Statistical Learning) are not capable to account for the complex action of uncertainty in real life applications of statistical reasoning. Much academic research in empirical economics, markets or social sciences involve determining whether or not one or several variables have causal effects on another variable. The statistical tool used for making such affirmations is typically regression analysis. This paper seeks to throw light on the illusions of predictability with specific reference to 'Regression' as a statistical tool highlighting the importance of the much ignored regression statistic Standard Error of Estimate (SEE) which is essential for managing uncertainty in regression model. To highlight the significance of SEE in regression model, an empirical study on managing conflict among academicians in Mangalore B-schools was undertaken. A conflict-free organization has never existed and never will. What is interesting to observe is the manner in which individuals from different backgrounds handle conflict. Conflict Management Styles (CMS's) are known to vary due to diverse industrial and organizational set-ups. Behavioral scientists, Thomas and Kilmann (1975), have identified five styles of responding to conflict - competition, collaboration, compromise, avoidance, and accommodation. Hence, major focus of the research is to identify the various conflict management styles adopted by academicians to address conflict and to develop regression model of Satisfaction with the managerial norms & policies (Y) as against five Conflict Handling Styles ( $X_1, X_2, \dots, X_5$ ). This paper assumes significance in highly academic driven world where academicians converge from diverse demographic profiles.

**Keywords:** Statistical Reasoning, Uncertainty ,Regression Analysis, Standard Error of Estimate (SEE), Conflict, Conflict Management Styles (CMS).

**Introduction:** The world of certain knowledge is rapidly shrinking and instead organisations are faced with risk, uncertainty and ambiguity where the straight forward solutions of yesteryears seem no longer applicable for managing the problems of today. To a large extent, the analysis of uncertainty is based on statistics and statistical thinking. The general model that forms the basis of much of classical statistical modeling is the Regression Model. For most of its history, regression analysis was a complex, cumbersome, and expensive undertaking. Fortunately, today, with the advancements of software packages, a regression of the size and complexity of model could be executed in about matter of seconds.

The empirical study made by Soyer and Hogarth, 2012, by reviewing research articles throw light on distribution of various types of statistics used for modeling regression analysis. They concluded about 70% of interpretations made on regression models developed using regression analyses are not perfect and the analyst needs to demonstrate care in their interpretation. In interpreting the results of linear regression analysis two statistics can convey a

message to readers about the level of uncertainty in the results. These are Coefficient of determination ( $R^2$ ) and the Standard Error of the Regression (SER). As a bounded and standardized quantity,  $R^2$  describes the fit of a model. SER, on the other hand, provides information on the degree of predictability in the metric of the dependent variable. Although statistical techniques can help one better interpret the multitude of data in the world around us, in the end, statistics are only tools and must be interpreted by human beings. Thus, present research seeks to focus on illusions of predictability which is the consequence of the emphasis placed on the way in which results are presented in regression analysis and the uncertainty inherent in the dependent variable using empirical evidence of conflict management handling styles among academicians in Mangalore B-schools.

Conflict is unavoidable in the institutions of higher education due to encouragement of academic freedom and unbridled thinking. In the academic circle, with specific reference to post graduate management institutions, every academician is considered a leader in his/her own right. Managing

conflicts effectively leads to stronger relationships among participants and more creative solutions to problems. The purpose of the present research is to throw light on how academicians adopt various styles for handling conflict. *Competing* style represents high concern for self (high assertiveness) and low concern for others (low cooperation) classically exhibiting a win-lose situation. *Collaborating* style represents high concern for self and others (high assertiveness coupled with high cooperation) and is identified as a win-win situation. *Compromising* style represents intermediate concern for self and others (moderate assertiveness and moderate cooperation). *Accommodating* style represents low concern for self (low assertiveness) and high concern for others (high cooperation) and identified as a lose-win situation. *Avoiding* style represents low concern for self and others (low assertiveness and low cooperation) and identified as a lose-lose situation. The present empirical analysis addresses the issue of how conflict is managed by adopting various conflict management styles (CMS) in an educational hub like Mangalore (Karnataka State, India).

**Literature Review:** Studies taken by Gigerenzer, Gaissmaier, Kurz-Milcke, Schwartz, & Woloshin (2007), reviewed how probabilities and statistical information are presented, and consequently perceived, from medical and law perceptive. Their findings highlight that mistakes in probabilistic reasoning and the miscommunication of statistical information are common. It was found that doctors, lawyers and judges failed to communicate crucial statistical information appropriately in particular situations, thereby leading to biased judgments that have a negative impact on others. Mukhtar Uzma (2012), focused on the level of conflict which varied based on the kind of employees that an organization hires. The researcher concluded that the most popular conflict management styles adopted collectively by academia, banking sector and industrial sectors were 'compromising' and 'avoiding'. According to Kaur Sandeep & Laxmi M (2013), conflict handling styles of school teachers revealed that, experience (greater than five years of experience and less than five years of experience) had no significant role to play in the manner in which conflict was handled and the most adopted strategy of the school teachers was diffusion and compromise. Rashid Sobia (2012) stated that conflict handling styles depended on how one sees *one-self* and how one sees *others* in the conflict and as such a solution could range between integrating style (where one has high concern for self and others) and avoiding style (where one has low concern for self and others). Hearn & Anderson (2002) stated that though most of the research on conflict had been conducted in

traditional organizational setups, one could not conclude that educational institutions were totally free from conflicts. In fact Miklas & Kleiner (2003) termed educational institutions as perfect breeding grounds for conflict. These views also synchronized with those of Folger and Shubert (1995), who opined almost two decades ago that colleges and universities were no longer seen as quiet enclaves free from the conflicts that arise in all hierarchical organizations. Ghaffar (2005) focused on the causes of conflict and concluded that the agreements and disagreements among individuals and groups were the primary source for conflict. He identified the following conflict management strategies - mediation, negotiation, avoidance, collaborating and so on.

**Regression Analysis As A Tool For Managing Uncertainty:** Statistical Reasoning is affected by various sources of uncertainty: randomness, imprecision, vagueness, partial ignorance, etc. Traditional statistical paradigms (such as Statistical Inference, Exploratory Data Analysis, and Statistical Learning) are not capable to account for the complex action of uncertainty in real life applications of statistical reasoning. Specifically, much of the work in empirical economics involves the estimation of average causal effects through the technique of regression analysis. Emre Soyer and Robin M. Hogarth (2012), who studied behavioral decision-making, found that even experts frequently trip up when making decisions based on applied regression models as concluded in his research where, 441 articles which were published in the 3rd issues of four leading journals between 1998 and 2007 were selected. The journals were American Economic Review (AER), Quarterly Journal of Economics (QJE), Review of Economic Studies (RES) and Journal of Political Economy (JPE). Among these articles, authors excluded 8 articles those with time series analyses, and only included remaining 433 those with cross-sectional analyses where the authors of research papers identify one or more independent variables are statistically significant. The major objective of the research was to determine how the consumers of the literature translate the findings about average causal effects into perceptions of predictability. Many of the articles published in these journals were empirical. In journals of repute, empirical studies follow a common procedure for displaying and evaluating results. In most cases, these results should include the coefficient estimates and their standard errors, along with other frequently reported statistics, such as the number of observations (n) and the R<sup>2</sup> values. But, the research findings highlight the actual use of these statistics in Table 1.3 below which summarizes the use of regression statistics in various journals of repute.

Studies that:	Journals					% of Total
	AER	QJE	JPE	RES	Total	
Use Linear Regression Analysis	<b>42</b>	<b>41</b>	<b>15</b>	<b>13</b>	<b>N=11</b>	BASE
Provide both the sample standard deviation of the dependent variable(s) and the $R^2$ statistic	16	27	11	12	66	59.46
Provide $R^2$ statistics	30	32	15	12	89	80.18
Provide the sample standard deviation of the dependent variable(s)	21	32	11	13	77	69.37
Provide the estimated constant, along with its standard error	19	14	4	1	38	34.23
Provide a scatter plot	19	16	5	2	42	37.84
Provide the standard error of the estimate (SEE)	5	3	1	1	10	<b>9.01</b>

Reference: *Emre Soyer and Robin M. Hogarth (2012)*

Out of the 433 journal articles, Almost 25% (111) have used Liner Regression model for measuring uncertainty. However, apart from the regression coefficients (intercept & slope) and their  $R^2$  statistics, there is not much agreement as to what else should be reported in the analysis. The data therefore, suggest that researchers probably understand the inferences that can be made about regression coefficients or the average impact of manipulating an independent variable quite well; however, their ability to make inferences about other probabilistic implications may be less well developed as it is not clear when, how, or why the above manner of presenting regression results in publications emerged. It is worth noting that a dismal 9% of research has actually incorporated the significance of Standard Error of Estimate (SEE) which is an essential statistic in interpreting the uncertainty encountered in the regression model. In interpreting the results of linear regression analysis from decision making and predictive perspective, two statistics can convey a message to readers about the level of uncertainty in the results. These are Coefficient of determination ( $R^2$ ) and the Standard Error of the Estimate (SEE). As a bounded and standardized quantity,  $R^2$  describes the fit of a model. SEE, on the other hand, provides information on the degree of predictability in the metric of the dependent variable assessing the level of uncertainty. But from the findings of Emre Soyer and Robin M. Hogarth (2012) as shown in above Table 1.3, SEE is practically never given importance in the presentation of results. Hence, a decision maker consulting the results of these studies cannot infer much about either the unexplained variance within the dependent variable or the cloud of data points to which the regression line is fitted. Given the prevalence of empirical

analyses and their potential use for decision making and prediction, the debate lies on how to present results which are significantly important. However, it is important that such debates be informed by evidence as to the way in which knowledgeable individuals using currently available tools for making probabilistic inferences, and the way in which different presentation formats affect judgment. Our goal is to provide such evidence using empirical findings of CMS.

#### The Illusion Of Predictability: How Regression Statistics Mislead Experts

- **Ignorance of Standard Error of the Estimate (ESS) in the interpretation instead of  $R^2$ :** Normally in many research studies,  $R^2$  gets all of the attention; however, it does not tell you how the data values compare to the predicted values. Suppose if main goal of research is to determine which predictors are statistically significant and how changes in the predictors relate to changes in the response variable,  $R^2$  is almost totally irrelevant. But sorely underappreciated regression statistic Standard Error of Estimate (SEE) provides important information that  $R^2$  does not. Both statistics provide an overall measure of how well the model fits the data. But, the SEE measures the unexplained variance and measures the uncertainty encountered in the model. Smaller SEE values of are better. The standard error is not the only measure of dispersion and accuracy of the sample statistic. It is, however, an important indicator of how reliable an estimate of the population parameter the sample statistic is.
- **Confusing Correlation and Causation:** ‘Correlation does not imply causation’ is a phrase in statistics which emphasizes that a correlation between two variables does not necessarily imply

that one causes the other. Armstrong and Patnaik (2009) conclude that this illusion has led people to make poor decisions about such things as what to eat (e.g., coffee, once bad, is now good for health), what medical procedures to use (e.g., the frequently recommended PSA test for prostate cancer has now been shown to be harmful), and what economic policies the government should adopt in recessions (e.g., trusting the government to be more efficient than the market). According to Zellner (2001), Sir Harold Jeffreys had warned of this illusion, and, in 1961, referred to it as the “most fundamental fallacy of all.” The solution is to base causality on meta-analyses of experimental studies.

### Research Methodology

**Significance of the Study:** Management education has become a major profession that attracts considerable attention across the world. Today, there is a lot of competition which in turn has given birth to many problems in the society; ‘conflict’ being one of them. It is worth repeating here that a conflict-free organization has never existed and never will exist. The alarming rate, at which conflict is increasing in the management education today, warrants a focused research in finding out alternative remedies of resolving conflict. Understanding of the styles of handling conflict and adopting the appropriate one will enable the management to better achieve their objective in maintaining organizational harmony and good unity. Thus, the focus of research will be to identify various conflict handling styles used by management faculty. The study was carried out in a cosmopolitan city namely Mangalore, which is known for its diverse social and organizational culture. This paper focuses on developing regression model for studying the satisfaction level of academicians with respect to managerial norms & policies including employee compensation, training & development, work flexibility, fringe benefits, working conditions and avenues for growth & promotion as against various conflict handling styles adopted by academicians in Mangalore B-Schools and thereby highlighting the significance of interpreting the statistic SEE for measuring uncertainty in regression model.

**Objectives of the Study:** The primary objective of the study is to measure the uncertainty level of satisfaction with respect to managerial norms & policies (dependent variable) as against five conflict handling styles (independent variable) using regression model. The delineation of the research question is to find out the various modes of conflict handling styles employed by management faculties among five leading B-Schools in Mangalore city in order to address conflict. This paper also seeks to

throw light on the illusions of predictability with specific reference to Regression as a statistical tool highlighting the interpretation of the much ignored regression statistic Standard Error of Estimate (SEE) which is essential for managing uncertainty in regression model.

**Scope of the Research:** The foundation of the present research rests upon the interaction among major items in the instrument used for the purpose of the study. The primary data was collected through a self-administered questionnaire where cross-sectional data of respondents from five leading B-Schools in Mangalore city were used to address conflict by adopting various styles.

**Research Design:** The present study is an exploratory research design within which multiple cross sectional designs would be used to assess whether there is any significant difference among management faculties having less than three years and more than three years of academic experience while adopting the five conflict handling styles (Kilmann and Thomas (1975, 1977).

**Sampling Design:** The present study was confined to five leading B-Schools in Mangalore city (Karnataka State, India). Sampling units comprised of all the faculties in the five chosen B-Schools with a total sample size of 79 respondents. This questionnaire was applied to 19 academicians at a pilot study. For the basis of obtaining more reliable data, the study was followed by face-to-face interviews. It was assumed that the items in the questionnaire were appropriate to test academicians’ conflict management styles.

**Limitations and Implications for Future Research:** The present study included academicians from only five B-schools in Mangalore city. Therefore, the results cannot be generalized due to this fact. The results of the level of satisfaction of managerial norms and policies which included employee compensation, training & development, work flexibility, fringe benefits, working conditions and avenues for growth & promotion was measured solely on the basis of five point Likert scale, and hence to that extent is restrictive. Thus future research holds the scope to bifurcate the parameters that lead to the level of satisfaction of managerial norms and policies. The study also included face validity, content validity and construct validity. Thus, there is wide scope for future research to incorporate other types of research validation. Although the feedback related the direct behaviour of the respondents to a conflict situation, there exists a high possibility that the respondents might actually reveal an ideal response rather than their actual behaviour to a given context.

**Validating the Research Instrument:** One of the most widely recognized models of conflict styles was

developed by Kilmann and Thomas (1975) based on the work of Blake and Mouton (1964) and forms the basis for the questionnaire in the present study. The research instrument was administered to academicians in five leading B-Schools in Mangalore city (Karnataka State, India) where all the teaching faculty members from the five B-schools were included for the purpose of data collection. The research instrument consists of two parts. The first part seeks to identify the demographics (gender, marital status, total tenure in work life, tenure in teaching, designation) of the respondents. The second part focused on identifying the behaviour of the respondents towards various issues relating to conflict. All data used in the study consisted of responses to questionnaire items. The present research instrument was partially imported from Rahim Organizational Conflict

Inventory-II (ROCI-II) by Rahim (1983) which is, together with the Conflict Mode Instrument of Thomas and Kilmann (1974) one of the two world's best-known instruments. The present research instrument adopted is a self-scoring instrument designed to measure an individual's preference for addressing conflict based on five different conflict-handling styles within an organizational set-up. However, the present research instrument was modified to bifurcate the double barreled questions to ensure clarity in addressing the responses relating to conflict management resulting in 35 different statements, instead of the standard 25 different statements (Rahim and N. R. Magner, 1995) on a 5-point Likert scale, ranging from 'strongly agree' (5) to 'strongly disagree' (1) where the higher score represents greater use of a particular conflict style.

### Analysis And Interpretation Of Data

#### Socio Demographic Characteristics Of Respondents

The demographic details of respondents are in Table-6.1 below.

TABLE-6.1: Demographic Details

Gender			Age			Teaching Experience			Marital Status			Designation						
	F	%		F	%	yrs	F	%		F	%		F	%				
Male	41	51.9	20-25	5	6.3	< 3	31	39.2	Single	24	30.4	Professor	18	22.8				
Female	38	48.1	25-30	16	20.3	> 3	48	60.8	Married	55	69.6	Associate Professor	7	8.9				
	30-35	22	27.8										Assistant Professor	24	30.4			
	35-40	12	15.2															
	40-45	8	10.1															
	45-50	5	6.3										Lecturer	30	38.0			
	>50	11	13.9															

It can be seen from the above table that out of 79 faculty respondents of Mangalore B-Schools, 51.9% of them are male respondents and the remaining are female respondents. Regarding the age group, maximum respondents belong to the age group of 30-35 years. Likewise, 69.6% of respondents are married and about 38% of respondents belong to the category of lecturers followed by 30.4 % who were assistant professors. An important aspect to be noted in the

experience in teaching category is that 60.8% of respondents have teaching experience more than 3 years while remaining have less than three years of teaching experience.

#### Internal Consistency Or Reliability:

Internal consistency or reliability is analyzed statistically through Cronbach's coefficient alpha of reliability Alpha ( $\alpha$ ) which is depicted below.

TABLE - 6.2 (A): Reliability Coefficient- Cronbach's  $\alpha$

	(A) For 25 items	(B) For 35 items	For 45 items
Cronbach's $\alpha$	0.754	0.797	0.822

As the Cronbach's  $\alpha$  in the above Table-6.2(a) are all greater than 0.70, we can statistically conclude that there is a consistency or inter-reliability in measuring

various items of conflict management. In a sense, the result ensures that the responses are not too varied across time in a summated scale.

TABLE 6.2 (b): Reliability Coefficient- Cronbach's $\alpha$						
For 25 items	{Adapted from ROCI-II by Rahim (1983)}	Competing [n=79;m=5]	Collaborating [n=79;m=5]	Compromising [n=79;m=5]	Avoiding [n=79;m=5]	Accommodating [n=79;m=5]
	Cronbach's $\alpha$	0.728	0.719	0.619	0.698	0.625
For 45 items	{ Bifurcating double-barreled items as developed by researchers}	Competing [n=79;m=9]	Collaborating [n=79;m=11]	Compromising [n=79;m=5]	Avoiding [n=79;m=7]	Accommodating [n=79;m=13]
	Cronbach's $\alpha$	0.820	0.745	0.729	0.798	0.792

\*n=total sample size=79 & m=number of items used to define the style.

Testing the reliability through Cronbach's  $\alpha$  for the original research instrument for 25 items and bifurcating double-barreled instrument of 45 items as developed by researchers. We observe that Cronbach's  $\alpha$  generated for the revised research instrument of 45 items as mentioned in the above Table - 6.2(b) are all greater than 0.70.

Thus we can statistically conclude that there is a much greater consistency/inter-reliability among various items for defining a particular style of conflict

management. Hence, the revised research instrument was considered more reliable/consistent for further statistical analysis than the original research instrument.

#### Analysis On Five Styles Of Handling Conflict:

The mean and standard deviation as per the data collected from the respondents were analyzed under the different headings of five modes of conflict handing styles which are represented in Table-6.3.

TABLE-6.3 Analysis On Five Styles Of Handling Conflict					
Style	Competing (n=79; m=5)	Collaborating (n=79; m=5)	Compromising (n=79; m=5)	Avoiding (n=79; m=5)	Accommodating (n=79; m=5)
Mean	4.02	4.23	3.45	3.27	3.74
Standard deviation	0.83	0.71	1.02	1.16	0.86

\*n=total sample size=79 & m=number of items used to define the style.

The key to managing conflict well is choosing and executing the strategy that best fits the situation. It is observed from Table-6.3 that the mean rating of "Collaborating style" is the highest with 4.23 and has the lowest standard deviation of 0.71. Thus it is found that the most preferred style among management faculties to address conflict is Collaborating style followed by Competing style and the least preferred style is the Avoiding. Collaborating with colleagues at the work place promotes creative problem-solving, which is a way of fostering mutual respect and rapport.

**Multiple Regression Analysis:** Dependent variable: Satisfaction with the Managerial Norms & Policies (Y) Independent Variables: All five Conflict Handling Styles [(Competition(X<sub>1</sub>), Collaboration(X<sub>2</sub>), Compromise(X<sub>3</sub>), Avoidance(X<sub>4</sub>), Accommodation(X<sub>5</sub>))]

#### Table 6.4(a): ANOVA Table:

The first step is to look at overall significance of the regression equation. That is to test the goodness of fit of the model.

H<sub>0</sub>: None of the independent variables are significant predictors of the dependent variable.

H<sub>1</sub>: At least one independent variable is a significant predictor of the dependent variable.

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	217.448	5	43.490	17.69	.000*
Residual	179.388		2.457		
Total	396.835	78			

\* Values are Significant at 5% l.o.s

We observe that p-value is highly significant, Hence we reject H<sub>0</sub> and conclude that there is at least one independent variable which is a significant predictor

of the dependent variable. Hence the model is a good fit.

<b>Table 6.4(b): Model Summary:</b>			
Correlation Coefficient (r)	Coefficient of Determination ( $R^2$ )	Adjusted R Square (Adj $R^2$ )	Std. Error of the Estimate
.740	.548	.517	1.567

**Correlation Coefficient (r):** Value of  $r = 0.740$ , indicates that there is fairly high degree of positive correlation between dependent and independent variables.

**Coefficient of Determination ( $R^2$ ):** The value of  $R^2=0.548$ , we can infer that about 54.8% of the total variation in academicians satisfaction with the Managerial Norms & Policies is due to the various ways in which the academicians handle conflict using five styles whereas, remaining 45.2% is due to other factors such as obliging nature and integrating characteristics of academicians coupled with their maturity levels and negotiation capacity in their work environment. Further, the other factor from the organization perspective could be management rewards & recognition. The above, when holistically implemented along with five conflict handling styles in the work environment of academicians will result in greater satisfaction with respect to managerial norms & polices.

**Adjusted R Square (Adj  $R^2$ ):** Adjusted  $R^2$  takes into account the value of sample size. Adjusted  $R^2$  measures the proportion of the variance in the dependent variable (wage) that was explained by variations in the independent variables. Thus from the above table, value of adj  $R^2 = 0.517$ , this implies independent variables in the model account for 52%

of variance in the dependent variable. Also we observe the difference between  $R^2$  and adjusted  $R^2$  is very low ( $0.548-0.517=0.031$ ). Thus this indicates that sample size ( $n=78$ ) is big enough for the number of independent variables under study.

**Standard Error of Estimate (SSE):** Std. Error of the Estimate (SEE) is an important parameter used to analyse how best the regression parameters are deviated. SEE is the standard deviation of the residuals. It measures the dispersion of the dependent variables estimate around its mean. By comparing SEE to the mean of the "Predicted" values of the dependent variable and if SEE is less than 10% of the mean, then standard error encountered in the model is less and this in turn indicate that uncertainty in the model is less implying model to be good. Larger SSE indicates greater dispersion around the regression line and hence the uncertainty in the model is more implying model to be not good. From the above table, comparing the SEE= 1.567 to the 10% of mean of the predicted dependent variable (21.3924), we observe that  $1.567 < 2.1394$ , thus we conclude that the standard error encountered in the present regression model is less implying regression model to be good and hence uncertainty in the model is reduced to larger extent.

**Table 6.4(c): Regression Coefficients**

Predicted Variables	Unstandardized Coefficients		Standardized Coefficients (BETA)	t	Sig.	Collinearity Statistics	
	B	Std. Error				Tolerance	VIF
(Constant)	2.942	2.144		1.372	.174		
Competing	.158	.074	.204	2.138	.036 *	.681	1.469
Collaborating	.270	.103	.253	2.613	.011 *	.662	1.510
Compromising	.080	.085	.116	0.938	.351	.406	2.462
Avoiding	.163	.051	.282	3.205	.002 *	.798	1.254
Accommodating	.295	.088	.357	3.367	.001 *	.550	1.819

\* Values are Significant at 5% l.o.s

**Regression Model:** With reference to above table, Regression Model is defined as:

$$Y = 2.942 + 0.158X_1 + 0.270X_2 + 0.080X_3 + 0.163X_4 + 0.295X_5$$

**Standardized Coefficients:** This is an indicator of which Independent variable ( $X_1, X_2, X_3, X_4$  and  $X_5$ ) is more predicting the dependent variable (Y). Thus from the above Table 6.4(c), we observe that standardized coefficients of compromising style is very low as compared to others thus we infer that level of satisfaction of academicians with respect to

managerial norms and policies is more dependent on others styles than compromising style.

#### Testing for Significance of the Regression coefficients:

$H_0$ : There is no relationship between Dependent & Independent variables

(Satisfaction with the Managerial Norms & Policies of Management is not related to its five styles of Handling Conflict)

**H<sub>0</sub>:** There is relationship between Dependent & Independent variables

(Satisfaction with the Managerial Norms & Policies of Management is related to its five styles of Handling Conflict)

From the table t-test is used to test whether the population coefficient is likely to be different from zero. Higher the value of absolute 't' more is the contribution of that independent variable to predict the dependent variable.. If we take I.o.s as 5%, then p-values of four independent variables such as Competing, Collaborating, Avoiding, Accommodating are less than 0.05, thus we reject H<sub>0</sub> and conclude that academicians satisfaction with the managerial norms & policies of management is related to its four styles of handling conflict such as competing, collaborating, avoiding and accommodating whereas, in the case of compromising it is insignificant and hence we accept null hypothesis in this case and conclude that there is no significant relationship between level of satisfaction and compromising mode of handling conflict. This may be due to the fact that academicians who compromise on various issues at the work place may not be doing so intentionally but out of force or fear which ultimately reduces the level of satisfaction with management.

**Collinearity Statistics: (To Test for Multi collinearity):** Collinearity (or Multicollinearity) is the undesirable situation where the correlations among the independent variables are strong. The presence of Multicollinearity makes it difficult or impossible to assess the relative importance of the predictor variables. Formally to test the presence of Multicollinearity in the model, Variance Inflation Factors (VIF) and Tolerance values are checked. VIF measures how much the variance of the estimated coefficients is increased over the case of no correlation among the independent variables. As a rule of thumb, value of *VIF higher than five* (or *Tolerance less than 0.2*) indicates the presence of Multicollinearity. From the above Table 6.4 (c), we observe that all the values of VIF are all less than five and also all tolerance values are more than 0.2, thus we can conclude that presence of Multicollinearity is not detected in the model and hence there is no

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requirement to drop any independent variables defined to predict uncertainty of dependent variable.

**Conclusion:** The conflict management style that was predominant among the teaching faculty in the B-Schools located at Mangalore was 'Collaborating' style followed by 'Competing' style. This is not surprising since the tendency among management faculty is by and large that of integration. It is not common to see B-School faculty members either totally compromising or avoiding a conflict situation. Behavioral scientists also suggest that a collaborating or problem-solving style is most appropriate for managing conflict (Blake and Mouton, 1964; Likert and Likert, 1976). Thus management of various B-Schools should continue to give priority for training the faculty members in handling conflicts through collaboration for an environment that is conducive to promote healthy work atmosphere. Satisfying academicians with respect to managerial norms & polices which include employee compensation, training & development, work flexibility, fringe benefits, working conditions and avenues for growth & promotion is no simple task and hence the management must seek ways to promote a healthy environment thereby ensuring that conflicts are professionally handled at the workplace. The four styles of handling conflict such as competing, collaborating, avoiding and accommodating had a significant impact on level of satisfaction; whereas, in the case of compromising mode of handling conflict the outcome was insignificant. Thus management must focus on programmes that train academicians to handle conflict appropriately as demanded by the situation and not just surrender either out of fear or force. The study showed a low standard error of estimate (SEE) thereby affirming that uncertainty about satisfaction level with respect to managerial norms & polices is reduced indicating that the present model adopted is a good fit.

A satisfied employee is the delight of any organization. Employees should be capable of handling conflict and still exist in harmony, thereby not just surviving but thriving in today's turbulent environment.

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