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From the EDITOR IN CHIEF's Desk.......

"You don't write because you want to say something; you write because you have got something to say", ruminating on these words I am proud to present to you the second issue of the fifth volume of our Bi-Annual management journal ACUITAS. Our objective is to provide platform to all those authors who would like to share their research work on varied aspects of management.

I duly acknowledge the support, proper assistance, motivation received from our patrons, advisory board and editorial board. I also duly acknowledge all the contributors of research papers included in the journal.

Out motive is to publish the most excellent research papers in management and we wish to provide 'ACUITAS' as a vehicle for the same. Your suggestions for further improvement of our journal are always welcome. We strive for increased accountability and all concerns and suggestions can always be directed to me.

Looking forward for a long term association with you all!

Thank you.

Warm Regards,

Dr. SudhirFulzele

Director, DAIMSR

Contents

Impact of Farm Pond Management in Maharashtra

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1. Introduction:

In Maharashtra, the proportion of gross irrigated area to gross cropped area was 17.09 percent. The geographical area of the state is 308 lakh hectares and cultivable area is 225 lakh hectares. Out of this, 40 per cent of the area is drought prone. About 7 per cent area is flood prone. The highly variable rainfall in Maharashtra ranging from 400 to 6000 mm occurs in a 4 months' period between June and September with the number of rainy days varying between 40 and 100. The estimated average annual availability of water resources consists of 164 km3 of subsurface resources. Of the 5 river basin systems, only 58 per cent of this average annual availability is found in the four major river basins (Krishna, Godavari, Tapi and Narmada) from east of the Western Ghats. These four river basins comprise 92 per cent of the cultivable land and 75 per cent of the people living in rural settlements and fast growing towns and industrial area. An estimated 49 per cent of the area of these river basins containing 43 per cent of the population is already considered deficit or highly deficit in regard to water availability; and these river deficit areas are expected to increase steadily as both the population increase and the economic growth takes place. Moreover, Maharashtra shares all these four river basins with neighboring states and various interstate river water tribunal awards/agreements and decisions on water sharing have reduced estimated available surface water resources in these river basins for the state of Maharashtra to about 125 km3 (Government of Maharashtra, 2003)

Irrigation is an important input in cultivation and subsistence of all plant life. A highly efficient and irrigated cropping system alone can sustain agriculture for India's expanding population. Maharashtra is one of the leading states in agriculture in India. The state is having tremendous potential of irrigation water, which can be used efficiently for growing variety of crops. The surface water resources of the state are mainly in the form of water resources from river. There are three major river basins and two major river sub basins in the state. The Godavari, Krishna, Tapi and Narmada are the important river basins in Maharashtra.

The Farm Pond Management study helps for the development by providing empirical evidences. The results of the present paper are helpful in formulating suitable Farm Pond development policies, irrigation policies to the State Government. The study emphasizes on changes in income of farm family due to adoption of farm pond and consequently change in social life of farmers. In this paper, efforts are made to find the impact of Farm Pond Management on irrigation levels, crop yield and overall changes.

2. Objectives of the Study

The present paper is designed in following objectives:

a) To study the increase in water level and filled up frequency in farm

b) To study the season-wise use of the farm pond water

c) To study the uses of the farm pond water for different purposes

d) To study the change in yield level due to adoption of farm ponds

e) To study the advantages of the farm pond adoption.

3. Methodology

Secondary data is collected from a NGO organization i.e. Center for Rural Research and Community Development, Nagpur and from the published sources of economic survey, statistical abstract etc. for the supporting the results of the present study. The secondary data figures provide the guideline and insight for planning and implementing the research work.

The scheme of Farm Pond is initiated in year 2007 and continues till the year 2012. Therefore the yield and irrigation data is collected for three years before Farm Pond's construction and after Farm Pond's construction i.e. from 2005 to 2012. The data is collected from the Nashik, Pune, Kolhapur and Aurangabad Division. Simple tabular presentation is stated in this paper.

4. Result and Discussion

In the light of impact assessment of Farm Pond amongst different Divisions, it is imperative to probe in detail Division-wise analysis of increase in irrigations, sources of irrigation, increase in water level, advantages and disadvantages, problems faced by adopter in the State of Maharashtra etc.

4.1 Increase in irrigated area by Farm Pond in Maharashtra

The table no 1 reveals that the irrigated area in Maharashtra is increased by 64 percent over its previous irrigated area. It means the 0.64 hectare area increased over the one hectare of irrigated area. The Aurangabad Division has shown highest percentage of increase in irrigated area (157 percent i.e. 1.5 times over base period), because the base years' irrigated area was less as compared to other Divisions

						Area (ha)
S.No.	**Particulars**	**Nashik Division**	**Pune Division**	**Kolhapur Division**	**Aurangabad Division**	**Maharashtra**
1	Before FP	576	178	451	281	1485
2	After FP	866	251	592	722	2431
3	Increased due to FP(%)	50	42	31	157	64

Table 1. : Increase in irrigated area by Farm Pond in Maharashtra

Filled Up Frequency and Water Level of Farm Pond in Maharashtra

Table no 2 represents the frequency of filled up of Farm Pond and its water level in meter. The estimates shows that the Farm Pond construction initiated in 2007-08, so filled up frequency is not observed in all divisions. When Farm Ponds are full constructed in most of the areas in year 2009-10, the filled water frequency was once in year and water level was 2.42 meter. In year 2010-11 the frequency was twice in year and water2.43 meter.

Amongst the Divisions, higher frequency of filled up of Farm Ponds was observed in Nashik and Aurangabad Divisions and water level was ranges between 2.14 to 2.69 meter. In year 2011-12, almost in all Divisions filled up frequency of Farm Ponds was good and twice during a year, water level was also found good.

S.No.	Year and Level	Nashik Division	Pune Division	Kolhapur Division	Aurangabad Division	Maharashtra
1	07-08 (Nos)	0.5	0	1	1	0.7
2	Meter	0.00	0.27	0.88	0.65	0.45
3	08-09 (Nos)	1	0	1	2	1
4	Meter	1.79	0.73	1.21	2.70	1.61
5	09-10(Nos)	2	1	1	2	2
6	Meter	2.68	2.23	2.12	2.65	2.42
7	10-11(Nos)	2	2	2	2	2
8	Meter	2.66	2.42	1.96	2.69	2.43
9	11-12 (upto May) (Nos)	2	2	2	2	2
10	Meter	2.63	2.29	2.14	2.63	2.42

Table 2 : Filled Up Frequency and Water Level of Farm Pond in Maharashtra

4.2 Season wise use of Farm Pond water by Farm Pond Beneficiaries in Maharashtra

The seasonwise use of Farm Pond water is given in table no 3. The 45.91 per cent Farm Pond Beneficiaries found Farm Pond water is useful for both seasons and 36.99 said it is useful Kharif seasons. The 16.38 percent realized the Farm Pond water level is useful for Rabi season. Amongst the Divisions, the 74 per cent Farm Pond Beneficiaries belongs to Kolhapur Division found Farm Pond water is useful for both seasons.

Table 3 : Season wise use of Farm Pond water by Farm Pond Beneficiaries in Maharashtra

S.No.	Particulars	Nashik Division		Pune Division		Kolhapur Division		Aurangabad Division		Maharashtra	
		No.	%	No.	%	No.	%	No.	%	No.	%
1	Kharif	275	37.36	207	27.82	67	11.53	587	58.12	1136	36.99
2	Rabi	88	11.96	209	28.09	84	14.46	122	12.08	503	16.38
3	Both	373	50.68	306	41.13	430	74.01	301	29.80	1410	45.91

4.3 Use of Farm Pond water by Farm Pond Beneficiaries in Maharashtra

The Utilization of Farm Pond water for various purposes is discussed in the table no 4. From the results it is observed that maximum Farm Pond Beneficiaries uses Farm Pond water for primary purpose i.e. irrigation purpose (81.63 percent) in Maharashtra. The 78.48 per cent farmers use the Farm Pond as drinking water for animals. In the Divisions, the in Nashik Division 3.80 percent Farm

Pond Beneficiaries use water for fishery subsidiary occupation, while7.74 per cent Farm Pond Beneficiaries use water for other purposes.

S.No.	Purpose	Nashik Division		Pune Division		Kolhapur Division		Aurangabad Division		Overall	
		No.	%	No.	%	No.	%	No.	%	No.	%
1	Crop Irrigation	642	87.23	588	79.03	346	59.55	931	92.18	2507	81.63
2	Drinking water for Livestock	601	81.66	522	70.16	348	59.90	939	92.97	2410	78.48
3	Fisheries	28	3.80	25	3.36	12	2.07	9	0.89	74	2.41
4	Other (Mention)	57	7.74	3	0.40	4	0.69	44	4.36	108	3.52

Table 4 : Use of Farm Pond Water by Farm Pond Beneficiaries in Maharashtra

4.4 Change in yield of Major Crops in Maharashtra

Change in yield of Major Crops in Maharashtra is presented in table 5. As the change, it is observed that almost in all crops, yield is increased after the adoption of Farm Pond. It is seen that the yield of maize, Pearl millet, sorghum is increased to 23.19, 11.12 and 37.01 per cent respectively. The yield of cotton is also raised by 30 per cent. The yield of major Rabi crops wheat and gram is also increased by 28 and 23 per cent. The soybean also showed positive growth by 26 per cent.

S.N.	Season	Crops	BFP	AFP	% change
1	KR	Maize	24.49	30.17	23.19
2	KR	Paddy	23.88	21.87	-8.42
3	KR	Pearl Millet	17.51	19.45	11.12
4	KR	Sorghum	16.53	22.65	37.01
5	KR	Cotton	18.91	24.61	30.16
6	KR	Groundnut	18.08	24.83	37.37
7	KR	Soybean	16.93	21.36	26.22
8	KR	Black Gram	9.36	10.67	14.06
9	KR	Gram	10.61	18.27	72.10
10	KR	Pigeon Pea	9.79	13.45	37.40
11	KR	Onion	103.74	121.49	17.11
12	KI	Maize	27.91	32.22	15.44
13	KI	Pearl Millet	19.44	24.04	23.65
14	KI	Sorghum	21.85	25.39	16.21
15	KI	Groundnut	15.95	15.98	0.19
16	KI	Black Gram	18.31	19.16	4.65

Table 5 : Change in yield of Major Crops in Maharashtra

17	KI	Pigeon Pea	11.85	15.24	28.62
18	KI	Tomato	71.88	72.41	0.74
19	RR	Maize	27.77	29.71	6.97
20	RR	Pearl Mllet	14.70	24.31	65.30
21	RR	Sorghum	14.97	22.08	47.43
22	RR	Wheat	20.65	22.56	9.23
23	RR	Ground Nut	9.34	16.06	71.83
24	RR	Soybean	16.06	41.99	161.46
25	RR	Gram	10.75	13.24	23.25
26	RR	Onion	50.93	103.54	103.31
27	RI	Pearl Millet	24.62	32.64	32.55
28	RI	Sorghum	20.58	23.98	16.54
29	RI	Wheat	20.61	26.40	28.06
30	RI	Soybean	29.64	27.17	-8.33
31	RI	Onion	52.00	55.19	6.15
32	RI	Tomato	43.01	96.40	124.14
KR=Kharif Rainfed, KI= Kharif Irrigated, RR=Rabi Rainfed, RI=Rabi Irrigated					

4.5 Advantages of Farm Pond adoption in Maharashtra

The table 6 focuses on the advantageous of the Farm Pond adoption in Maharashtra. In Maharashtra, the 82.48 per cent Farm Pond Beneficiaries responded that the Farm Pond water is used for protective irrigation. It is followed by the 79.42 per cent Farm Pond Beneficiaries uses water for Kharif crops during interruptions in rains. The 79 per cent Farm Pond Beneficiaries uses Farm Pond water as drinking water of livestock animals. It has also increased water level(42.66 per cent). Other secondary uses of water are increase in water filtration in salty land(11.20 per cent) generated employment(9.25 per cent), it has increase income of subsidiary occupations.

Amongst Divisions, in Nashik Division, 91.03 per cent Farm Pond Beneficiaries said that they use Farm Pond water for protective irrigation. In Aurangabad Division, the 83.27 per cent Farm Pond Beneficiaries used the water for Kharif crop during interrupted rainfall.

S. No.	Benefits	Nashik Division		Pune Division		Kolhapur Division		Aurangabad Division		Maharashtra	
		No.	%	No.	%	No.	%	No.	%	No.	%
1	Protective Irrigation	670	91.03	584	78.49	369	63.51	910	90.10	2533	82.48
2	Increased water level of well	426	57.88	302	40.59	268	46.13	314	31.09	1310	42.66
3	Irrigation during	633	86.0	50	67.8	462	79.52	841	83.27	24	79.

Table 6 : Advantages of Farm Pond adoption in Maharashtra

No	Item										
	interrupted rains in Kharif		1	5	8					41	49
4	Can take Crop in Rabi	457	62.09	470	63.17	476	81.93	391	38.71	1794	58.42
5	Water available for live stock & other	625	84.92	516	69.35	358	61.62	927	91.78	2426	79.00
6	Filtration of water in salty land	48	6.52	117	15.73	132	22.72	47	4.65	344	11.20
7	Stop distribution of water tanker	36	4.89	38	5.11	68	11.70	56	5.54	198	6.45
8	Support for Kitchen garden	40	5.43	11	1.48	8	1.38	6	0.59	65	2.12
9	Generated employment & stop migration	125	16.98	55	7.39	65	11.19	39	3.86	284	9.25
10	Dairy Income in Rs.	41	5.57	9	1.21	25	4.30	2	0.20	77	2.51
11	Fishery Income in Rs.	22	2.99	26	3.49	6	1.03	15	1.49	69	2.25
12	Poultry Income in Rs.	3	0.41	5	0.67	2	0.34	3	0.30	13	0.42
13	Other Income in Rs.	5	0.68	1	0.13	2	0.34	0	0.00	8	0.26

5. Conclusion

From the results, it is concluded the resuls as follows

1. In the Maharashtra, the irrigated area is increased by 64 percent over the baseline area of the users. The Farm Pond water definitely increased yield and subsequently income. The average income is increasing. It leads to financial stability in family income and provide relief from stress of marginal and small farmers. It may give effect on reduction in suicides.

2. In the Maharashtra State, the 82.48 per cent Farm Pond Beneficiaries responded that the Farm Pond water is used for protective irrigation and also for drinking purpose of livestock(78 percent). It is also protecting our livestock and contributes in organic and sustainable farming.

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ENVY AFFECTS JOB PERFORMANCE AND ACHIEVEMENT MOTIVATION WITH MODERATING EFFECT OF SELF ESTEEM

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ABATRACT

The experience of envy in organizational life is believed to be relatively common (Dogan and Vecchio, 2001; Foster,1972;Miner 1990; Vecchio,1999).Within organization there are various work based scenarios like promotions, pay increase, performance appraisal, group or team based work, are likely to increase feelings of envy among employees. Organization often uses systems that implicitly induce envy in order to motivate employees to higher levels of performance (stein, 2000). An attempt has been made through this present study to see the impact of envy on achievement motivation and job performance with moderating effect of self esteem. The significant result are observed (P<.05).

Key words – Envy, Job performance, Achievement motivation, self esteem

1. INTRODUCTION

Why do we pull away from colleagues we envy? Perhaps we experience this emotion more intensely with people who are close to us. No one likes to admit they're jealous or envious of their co-worker. People at all levels in a firm are vulnerable to envy. Envy is generally considered by everyone, a socially undesirable emotion and has been commonly experienced by most of the people regardless of their culture. Envy is an emotion that occurs when a person begrudges another for having or receiving something that he or she does not have, and perceives with displeasure the other's prosperity or advantage. It is not surprising that when one's accomplishments, talents, and possessions are perceived to compare poorly with those of another individual, who is not at par with them in any respect. When others' successes in the workplace bother you, you become ruminative. You obsess over interactions with rivals, compare your rewards, and over analyze even the fleeting praise the boss bestows on others. Envy damages relationships, disrupts teams, and undermines organizational performance.

When we're obsessed with someone else's success, your self-respect suffers, and we may neglect our own performance and possibly your career. Repressed envy inevitably resurfaces, stronger than ever .Our discomfort causes us to conceal and deny our feelings, and that makes things worse. Some people become so fixated on a rival that they lose their focus on their own performance. People also tend to distance themselves from the objects of their envy. Though friendly competitors challenge each other, enviers have difficulty learning from and collaborating with others. That can lead to disruptions or oversights at work. People are indeed unhappier when a close friend succeeds in a personally relevant domain than when a

stranger does. People want to learn more about ideas that come from other companies than about ideas that originate with rivals in their own organizations. This dislike of learning from inside rivals has a high organizational price.

The superior work achievements of another may also result in envious social comparisons between one self and a colleague (Tesser &Campbell, 1990). Bedeian (1995) notes, any situation in which employee obtain an advantage at the expense of another employee may provoke coworker envy. Despite the fact that little systematic research examining the antecedents and consequences of envy at the workplace has been conducted (see Vecchio, 1995, for an exception). An attempt has been made to highlight these gaps in management as how envy affects job performance and achievement motivation together with the moderating effects of self- esteem.

REVIEW OF LITERATURE

A precise, simple definition of envy is difficult because the term is used in multiple and conflicting ways. People tend to use the words "envy" and "jealousy" interchangeably, but the terms used to different experiences. Negative emotion is a common experience for many employees. Envy damages relationships, disrupts teams, and undermines organizational performance..

Envy, a pervasive and normal human emotion, has important implications for understanding workplace behavior. Ironically enough, the management discipline and social science researchers (George, 1990, 1992a) have ignored this topic. This neglect is particularly noteworthy because envy is especially common in business, professions, and the academic world. The, interest in the study of negative emotion and its consequences is growing as researchers recognize the cumulatively negative effects of these emotions have on organizational outcomes such as performance, employee with-drawal, sabotage, and turnover (e.g., Ashforth & Lee, 1990). Though scarcely researched, the experience of envy has a long, colorful history, including the infamous story of Mozart and his contemporary, Salieri. Vecchio, 2000; Wert & Salovey, 2004).

However, reviews of envy research have not documented any productive effects (Miceli & Castelfranchi, 2007; Smith & Kim, 2007).Many studies have reported more destructive effects have been documented in the literature currently (Duffy & Shaw, 2000; Parks, Rumble, & Posey, 2002; Schaubroeck & Lam, 2004; Smith et al., 1996; Smith, Parrott, Ozer, & Moniz, 1994; Van Dijk, Ouwerkerk, Goslinga, Nieweg, & Galluci, 2006; Vecchio, 2000; Wert & Salovey, 2004). Still, various scholars have pointed out that envy might spur a strong motivation to improve one's own situation as well (Aristotle, 350BC/1954; Kant, 1780/1997; Neu, 1980; Parrott, 1991; Rawls, 1971; Smith et al., 1994; Taylor, 1988). Aristotle, for example, claimed that ambitious men tend to be more envious than are others. Recent empirical work has confirmed that envy can contain the seeds of the motivation to improve (Cohen-Charash, 2009; Van de Ven, Zeelenberg, & Pieters, 2009). On the one hand, theory and research emphasize the importance of self- esteem in the development of envy (Barth, 1988). On the other hand, research findings about this role are mixed, and surprisingly, not too many studies examine the issue. Ryff found that those high in

self-esteem were high in environmental mastery. Using Ryff's (1989) measure of psychological wellbeing, Paradise and Kernis (2002) found that high stable self-esteem individuals were higher in environmental mastery and autonomy than those with unstable –but still high – self-esteem. So far the researches have done in this areas are less and mostly empirical. Therefore, limited study is available on the effect of envy and on the relationship between achievement motivation, job performance and self-esteem. This is the focus of this study as it tries to fill this gap.

Keeping in mind the above gap in the research, this study attempts to explain as how envy, affects job performance and achievement with a moderating effect of self-esteem. It will potentially helps us to focus on as how envy helps us to become more productive at work place, and will help us how to recognize potentially destructive thoughts and behaviors; refocus them into more generous, productive ones; and make our self more open to others, more receptive to change, and more fulfilled at work.

2. RESEARCH METHODOLOGY

Hypothesis

The correlation between envy, job-performance, achievement & self esteem is positive.
Self-esteem do not moderates the relationship between envy, job performance and achievement.

Measures

A quantitative research method (survey) was employed to collect data from 100 teachers working in different private management institutes of Delhi and NCR. However, after data cleaning, data of 70 teachers were used for the analysis. Stratified sample used keeping their age, experience and educational background control. Data were analyzed using descriptive statistics and hierarchical regression.

A 10 item self assessment envy scale was developed .The responses were taken on a five point scale. An exploratory Factor analysis was performed on these item scales. Through an analysis of the principal components using varimax rotation, the aim was to identify the number of components. Items having low factor loadings were excluded from the analysis .The final scale consists of 9 items. The KMO and Bartlett's test is .566 for all the scale and the Bartlett's test of sphericity is 80.886. Rosenberg Self-Esteem scale was adopted for the measurement of self esteem. Silber and Tippett (1965) found a test retest reliability coefficient for the Rosenberg Self-Esteem scale was of .85 and concurrent validity coefficient ranging from .56 to .83.A 14 item Ray achievement Motivation scale was adopted for the measurement of achievement in the subject having reliability for over .70 .Job performance grades were obtained from their respective work institutions based on their yearly appraisals. The row data computed in spss.

3. RESULT AND DISCUSSION

The first step to hierarchical, multiple regression models is to see the output which is being set by the researchers to predict the outcome. We can see from

Table 1 of Descriptive statistic that mean and standard deviation for confounding variable job-performance is 32.63 and 4.192 is higher than other confounding variable Achievement motivation (30.71 and 3.494) and predictive independent variable self-esteem(21.56 and 3.614).

Table 1

Descriptive Statistics			
	Mean	Std. Deviation	N
Envy	1.60	.493	70
Achievement	30.71	3.494	70
Job-performance	32.63	4.192	70
Self-Esteem	21.56	3.614	70

Table 2

Correlations					
		Envy	Achievement	jobperformance	selfesteem
Pearson Correlation	Envy	1.000	-.748	-.171	-.231
	Achievement	-.748	1.000	.337	.235
	Job performance	-.171	.337	1.000	.172
	Self-esteem	-.231	.235	.172	1.000
Sig. (1-tailed)	Envy	.	.000	.079	.027
	Achievement	.000	.	.002	.025
	Job performance	.079	.002	.	.078
	Self-esteem	.027	.025	.078	.
N	Envy	70	70	70	70
	Achievement	70	70	70	70
	Job performance	70	70	70	70
	Self-esteem	70	70	70	70

In Table 2 of Correlations all the three variables have negative correlations with the predictive variable envy, where achievement variable magnitude is stronger predictive capacity than other variables like job performance and self-esteem. The hypothesis1 is rejected. We reject the null hypothesis, which says that there is a positive relationship between Envy, achievement and job performance. The alternative hypothesis is accepted. Which indicate that there is negative correlation between envy, achievement and job performance & self esteem. There

observed a negative significant relationship P<.05 .

We go to the model summary table first, we have R2 and Adjusted R square and R value for each step for both the block these are the controlling confounding variable. In the table below, block l, we get an R of .753 and R2 is .567 means we get 57% variability by the independent variable Envy. The Adjusted R2 is .554, which is not a big change from R2, the R2 change in the block1 .567 which is same as R2 value which do not predict any change. The F Value 43.904, df1=2, df2=67 is significant (p=<.05) which means that R2 and R2 change is statistically significant. In the II block the R2 values include all the variables (block 1 & II) we can observe the effect of the variables altogether in II block (the predictive and control)

So now to find out how much overall variance is explained by the inclusion of the third moderating variable self-esteem The R2 change output for model II is the independent moderating variable is additionally 4% of variance in the outcome, when the job performance and

self-esteem have been statistically controlled. The R = .756, which has an increase of .3% of the model 1a,R=.753, it can be interpreted that with the inclusion of one more variable i.e., self- esteem in the model 2 the R value increased to.3% . The R2 value from .567 to .571 has increased a bit of 4%.The adjusted R2 for the model 2 did not changed much. The R2 change is .567 to .004 that indicates a big leap due to the inclusion of new variable in the model i .e.,self- esteem .The difference in R2 and R2 change is quite big and shows the predictive capacity of the inclusion of third variable self esteem. The F value= .656 with df1=1, df2=66 is significant at P=<.05, observed for the model II, indicated that adding one predictive variable exerts the moderating effects on the outcome of envy. Thereby the hypothesis II is rejected, which say that the self esteem do not moderate the relationship between envy, achievement and job performance. whereas practically self esteem do moderate the effect of envy, achievement and job performance

Table 3
Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.753a	.567	.554	.329	.567	43.904	2	67	.000
2	.756b	.571	.552	.330	.004	.656	1	66	.421
a. Predictors: (Constant), jobperformance, Achievement									

In ANOVA table 3, the f calculated for the model 1,f= 43.904 with df=2,67 ,P<.05 is statistically significant. For the Model 2,f=29.338, df=3,66, p<.05 is also proved statistically significant.

Table 4
Anova Table

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9.529	2	4.765	43.904	.000a
	Residual	7.271	67	.109		
	Total	16.800	69			
2	Regression	9.601	3	3.200	29.338	.000b
	Residual	7.199	66	.109		
	Total	16.800	69			
a. Predictors: (Constant), job-performance, Achievement						

Table 5
Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients			Correlations		
		B	Std. Error	Beta	t	Sig.	Zero-order	Partial	Part
1	(Constant)	4.628	.405		11.415	.000		-.744	-.733
	Achievement	-.110	.012	-.779	-9.126	.000	-.748	.130	.086
	jobperformance	.011	.010	.092	1.073	.287	-.171		
2	(Constant)	4.741	.430		11.032	.000		-.734	-.707
	Achievement	-.108	.012	-.766	-8.779	.000	-.748	.140	.092
	jobperformance	.012	.010	.099	1.146	.256	-.171	-.099	-.065
	selfesteem	-.009	.011	-.067	-.810	.421	-.231		
a.Dependent Variable: Envy									

In Table 5 of Coefficient the two variables have negative predictive capacity (achievement and self esteem) and one variable (job performance) have positive predictive capacity, where job performance seems to be stronger predictive value of envy than other variables like achievement motivation and self esteem. In the table 1, the model predicts the negative coefficient between achievement and envy estimated to be -.779 and positive coefficient between job performance and envy.091Which indicates that a change in one SD in the independent(achievement) results in -.779 decrease in the dependent variable (Envy) ,P<.05, signifies that achievement is the strong negative predictor of envy. Whereas change in one SD in job performance brings increase .092 increases in outcome variable, thereby job performance seems to be the strong positive predictor of envy.

Similarly, in model 2, of table -5 of coefficient, change in one SD in achievement variable brings decrease in-.776 in outcome variable envy.

Whereas change in one SD in job-performance brings.099 increase in outcome variable i.e., envy. The change in one SD in Predictive variable (self esteem) brings negative decrease by -.067 P<.05, seems to be the marginal negative predictor of Envy.

4. CONCLUSION

We can summarize the findings that envy affect achievement motivation and job performance (Aristotle, 350BC/1954; Kant, 1780/1997; Neu, 1980; Parrott, 1991; Rawls, 1971; Smith et al., 1994; Taylor, 1988) and it is also significant with the moderating effect of self esteem. The achievement and self esteem have negative correlation with envy, further indicates that envious people do not have achievement orientation and high self esteem,Intead they tend to be on low achievement orientation and low self esteem on the envy scale. The job performance seems to be high when people are more envious..

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BUILDING ENTREPRENEURS: AN IDIOSYNCRATIC MODEL IN MANAGEMENT EDUCATION

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ABSTRACT

The paper aims to highlight the role of entrepreneurship education in context of higher education institutions as well as how it has gained significance in modern times. The authors argue that entrepreneurship skills development play a vital role in the economic development of the nation, hence the Accreditation as a process must play a proactive role in propagating it. The paper further explores the programme and schemes being initiated by the government of India in order to assess the real value of the entrepreneurship education and how these measures can be supplemented by the higher educational institutions (HEI). The paper creates the background of to discuss how HEIs have ignored a dynamic field of study and why it must be given its due share in the modern curricula. In doing so, the HEIs are missing an opportunity to make their mark in furthering the national agenda. The paper puts forth the fact pertaining to the current accreditation process and indicates how the accreditation processes have also overlooked the entrepreneurship education. The paper explains the importance of including entrepreneurship education in the accreditation process, and contribute to the national growth agenda.

Key Words: Accreditation, Entrepreneurship education, Higher Education Institutions

1.   INTRODUCTION

The recent initiatives of the Indian government for creating jobs for millions and establishing a culture of entrepreneurship in the country is indeed a very positive step to give strength to the country's economy. The primary drivers of these initiatives will be the young generation, while the Higher education institutions (HEI) will play the role of enablers to achieve these objectives. Higher education institutions do play a very crucial role in the social competitiveness challenge. These institutions offer high-quality training, to match the needs of labour market as well as to build the socioeconomic environment of the country. The HEIs can train professionals who can fulfill the needs of public or private organizations, through the ability to use technical knowledge to any situation, and with their acumen. [1]

The current situation needs a quick assessment of the capability of the HEI to create entrepreneurial mindset amongst the student's community. Although entrepreneurial education has been there in HEIs for over four decades, their contribution to promoting entrepreneurship

has been far off the mark, when compared with the institutions in the Western countries, where entrepreneurship has made significant contribution to the economy [2]. The growth of corporate entrepreneurship as a valuable antecedent to the revitalization and enhanced performance of corporations, especially those in the developed markets, add to its merit [3]. Entrepreneurship influences the country in several ways. Apart from creating jobs it also contributes to Improvising products and services, reducing cost of production, making better use of technological advancements for improving quality of life, enhancing standard of living of its population, increasing income from exports while decreasing dependency on imports. Hence, the importance of entrepreneurship can never be underrated.

The facts highlighted above leads us to divert our attention on how entrepreneurship must be dealt with by the HEIs and should there be an increased focus on promoting Entrepreneurship particularly amongst the Professional institutions in the country. The next pertinent question then arises should the accreditation system increase the emphasis on Entrepreneurship education.

Experiential learning. Entrepreneurship literature identifies entrepreneurial learning as being experiential in nature (Politis, 2005). Subsequent research separates the experience of the entrepreneur from the knowledge actually acquired through that experience (Politis, 2005; Reuber & Fisher, 1994). Notably, this research references entrepreneurial learning in the context of actually starting an entrepreneurial venture and often questions the extent to which entrepreneurial learning can occur in a classroom; rather it encourages entrepreneurship education to focus on developing creativity, critical thinking, and reflection (Politis, 2005). Indeed, for those who may not readily identify as entrepreneurs, or shy away from this designation, we believe it may benefit such reluctant entrepreneurs to begin to test-out an entrepreneurial identity (that is, develop entrepreneurial cognition) within the classroom.

Immediate and personal applicability. Closely linked experiential learning are elements we see in arts education practice, namely a similarly learning-through-doing approach to student education. Simply stated, to learn how to paint, one paints. In the action, however, there is also an immediacy of personal application—the act of painting creates a painting by the artist. Similarly, we looked for ways in which our course could be not only experiential, but also personally- and immediately-relevant.

The Governmental efforts to boost Entrepreneurship in India

Following the steps taken by the governments across the globe, the Indian government has also created a support system to foster entrepreneurial pursuits. Some of these measures are being illustrated below:

National Science and Technology Entrepreneurship Development Board (NSTEDB) is an agency formed by the government to promote entrepreneurship in Science and Technology as also to provide informational services and creating network State governments and NGOs. NSTEDB also provides advisory services on entrepreneurship to government agencies.

Several other initiatives of the government, which are directly aimed at development and promotion of entrepreneurship includes:

- Entrepreneurship Development Cell.
- Entrepreneurship Development Program.
- Entrepreneurship Awareness Camp
- Faculty Development Program.
- Open Learning Program in Entrepreneurship.

- Science and Technology Entrepreneurship Development Scheme.
- Science and Technology Entrepreneurs Park.
- Technology Business Incubation
- Technology-based Entrepreneurship Development Program.

According to the recent estimates of the government, there are over 100 organizations, mostly academic institutions and other agencies, which are working towards employment generation through entrepreneurship development. These measures and the prominent role being played by the educational institutions in support and participation in these initiatives of the government, highlights the role of Entrepreneurship education.

Scenario of Entrepreneurship Education in Institutions in India

The educational institutions in India can drive the agenda of the government and play a major role in shaping the future of the economy. Here it is important to emphasize the fact that Entrepreneurship education is not just confined to train people to start businesses, but it essentially means the creation of skills and competencies, which make one think and act like an entrepreneur. Entrepreneurship as a field of business education has a wide-ranging nature. The content of entrepreneurship is derived from various disciplines including those of strategy, finance or marketing [4].

Some studies on the entrepreneurship point out that, although the preference to study entrepreneurship is high in India, the educational support for its development largely missing [5]. Entrepreneurship education is not yet a hugely desired course of the among management students in India. For this reason, the institutions offer entrepreneurship as an extra-curricular or co-curricular course in colleges and universities in India [6].

An analysis of the current situation indicates an unjustifiable ignorance of the Entrepreneurship education in the Indian institutions. This scenario has to change and Entrepreneurship education has to be accorded its right place in the educational curriculum [7], if the educational institutions are to play any role in building the entrepreneurial ecosystem in the country.

2. ENTREPRENEURSHIP EDUCATION & ACCREDITATION.

The experts from industry and academia have consistent views on, the need of every student pursuing higher education, to acquire entrepreneurial capabilities, besides subject specific knowledge. The skills essential to succeed as an entrepreneur thus, must be integrated into the curriculum with an increased emphasis. The students of business schools are more likely to study the subject of Entrepreneurship in a formal way, but a vast majority of the students from other streams, such as Engineering, Pharmacy etc., does not have this opportunity. This gap has led to a slower growth of 'startups' in these educational institutions. Ironically, such technical institutions, compared to the business schools, have more intellectual capital (Patentable technology, tools, machines, equipment etc.). While the business school students may have more knowledge of commercializing these intellectual resources but they lack in several skills such as technical competencies, project management, financial modeling etc., and even they lack in confidence to turn to entrepreneurship.

Although the current Accreditation processes does have component of entrepreneurship present (NBA Manual 2.2.4.4., NAAC Manual 5.1), but these are needed to be scaled up and higher emphasis needs to be laid on this. The structure, processes and the entire ecosystem for

promoting entrepreneurship in HEIs needs to be extensively and meticulously examined. It is high time the HEI stop producing hordes of job seekers and unemployable graduates but competent entrepreneurs, confident of making their own destiny. Accreditation can make favorable strides and bring a turnaround to this situation. At present, the attention given to the aspects of Entrepreneurship in the accreditation process is not sufficient and combined with the aspect of 'Placements'. The combined weightage to both Placements and Entrepreneurship is 10 points in NBA and even less in case of NAAC, which effectively translates into 0.8% of the total score. This miniscule presence of Entrepreneurship cannot be justified keeping in view its growing significance. Thus, omission of such crucial element is perhaps the biggest indiscretion in the accreditation process, which needs immediate attention.

3. THE WAY FORWARD:

Accreditation as process also need to evolve with the changing times. The newer perspectives and practices must not just be valued but integrated within the realms of accreditation process. The accrediting bodies must take forward the national agenda and must supplement the economic development of the nation. The accrediting bodies have the capacity to give shape and direction to the educational system of our country. It is time that the accrediting bodies turn more dynamic and proactive in driving the change that the education system as a whole is currently in such a dire need of. Entrepreneurship being such a universal theme applicable to all professional institutions must be brought into focus with renewed vigour, so that accreditation is viewed not merely as a driver of quality but as a force, that sets the national educational agenda.

4. AN IDIOSYNCRATIC MODEL FOR ENTREPRENEURSHIP EDUCATION: A BEST PRACTICE

The Context:

The education system needs to continuously look for means and methods to evolve and overcome the challenges that it faces in light of socio-economic, technological demographical and administrative development. Newer trends bring in newer challenges and seek solutions to resolve them. Similar is the case with the education system more specifically the teaching pedagogy. New models are required to be developed to train the students in the changing times. One such trend is the aspect of entrepreneurship, which has noticed rapid changes. This field has been particularly impacted by the technology. Changing times are opening new opportunities and these are needed to be leveraged by the new generation. The economic benefits of entrepreneurship to an individual as well as to the society are immense.

The next perspective is that the students of Tier-II and Tier-III cities offer limited opportunities for working on meaningful 'Live Projects'. The internships offered to the students by companies in smaller cities are not up to the mark and does not offer relevant work in areas of interest of the students. Most students end up getting 'Selling Assignments' from firms offering these internships. Strategic

The Objectives:
- To promote entrepreneurial skills amongst the students.
- To create a unique platform, which enhances the experiential learning of entrepreneurship.
- To leverage the opportunities of creating new business ventures by the students.
- To build up a sustainable model, which will not just train the

students, but will provide them with motivation and required skills to create their own business.

The Practice:

A group of students who had evinced interest in the area of entrepreneurship were gathered and were asked to work on a business proposal which can be started within the campus, while the students still continue to study. A group of faculty members from diverse areas were appointed as a panel of advisors to the group of students. The cohorts worked on the idea of creating a 'Campus Startup', which can do 'real' business with the outside world. The students did multiple round of discussions and deliberated on many ideas, the members of faculty facilitated these debates and eventually it was decided to start a Business Consulting firm.

The Business firm will seek the work from the local business firms and provide them services in multiple areas of business including Recruitment, Training, Business Development, Legal Advisory Services, Web solutions, Project finance etc. The consulting areas were planned keeping in view the expertise of the Faculty Advisors and the interest areas of the students. The next step was to gather capital for investment in the firm, the group of seven students pooled in a minimum capital of Rs. 500/- (Rupees Five hundred) each to meet the immediate expenses such as printing of Brochure and stationery. The institute provided the working area and support facilities within the campus premises. The students then worked for contacting clients and getting consulting work. The students were awarded by five firms and they completed their Summer internships as entrepreneurs. Five of these students are now working fulltime on their Business Plans and will launch their own startups within one year of completion of their MBA programme.

Obstacles faced / Problems encountered

The primary challenge was giving an assurance to the the students community by the Faculty advisors, that their project will be successful. The motivation level of the students continuously required to be maintained, so that they do not lose interest, before any tangible results are realized. The students needed to be trained for working in a group and their personal differences were to be kept in check so that they work as a cohesive team, rathe tan individually.

Evidence of Success

The students were able to successfully execute consulting assignments for five different firms. The 'Campus Startup' continues to serve many industries and the next batch of students have been able to generate more business. The client list has grown from five to fifteen in two years. The profits earned from the 'Campus Startup' has given the students the confidence to venture into entrepreneurship.

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MAKE IN INDIA VIA MAKE IN MAHARASHTRA-VIDARBHA-NAGPUR : AN INVESTOR'S DILEMMA*

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- The case won the best case award at National Case Study Conference, SMVDU, Katra

Abstract

Sushant Sinha was a proud Marathi-Manus from Nagpur. He was a seasoned investor in the stock markets and had already made a fortune by investing in stock markets. An IIT Graduate with an MBA from IIM-B, Sushant was hopeful that the new Government at the center and at the state would do wonders for the Indian economy and more so for the state of Maharashtra, which had lost its Numero Uno status to Gujarat.

The election of 2014 was in more ways than one a landmark election in the history of Indian politics. A prominent initiative of the incumbent government was "Make in India". Taking a clue from the centre, the government in Maharashtra also followed the band-wagon. Meanwhile, Sushant came across a PwC report which said that India will be the fastest developing economy in 2015-16. The report made Sushant wonder – whether his native region has a potential star which is missing from his investment portfolio. He thought that an initiative like "Make in India" should primarily help the basic industries like Cement, Steel, Power, etc.

Steel, captured his imagination and he started collecting information. Prominent Steel manufacturers in the region included JSW Steel, Jayaswal'sNeco, Sunflag Steels, FACTOR Steels and Bajaj Steels. It is notable that JSW Steel after acquiring Ispat Steels scored over TATA Steels to become the largest steel player in the domestic market. At the end of FY-14, FACTOR Steels had a balance sheet size of Rs. 134 crores, Sunflag Steels had a balance sheet size of Rs. 1310 crores, JayaswalNeco Industries Ltd. had a balance sheet size of Rs. 6580 crores and JSW Steels had a balance sheet size of Rs. 49259 crores. The PAT figures for FY-14 were – FACTOR Steels showed Net Loss of Rs. 28.05 crores, Sunflag Steels showed Net Profit of Rs. 21.68 crores, JayaswalNeco Industries showed a Net Profit of Rs. 62.13 crores and JSW Steels showed a Net Profit of Rs. 1, 334 crores.

Case Objective: The ensuing case deals with the dynamics of the Steel industry set in the backdrop of the Vidarbha region. The case also gives an insight into the contemporary economic environment with the help of macro-economic data and demand dynamics as given by prominent research and Government agencies. With the help of these and several other exhibits an attempt shall be made to discuss capital structure issues and its impact on profitability and long term sustainability. The main objective of the case would be to evaluate FACTOR Steels as a probable takeover candidate in the backdrop of make in India-Maharashtra-Vidarbha. An attempt is made to carry on fundamental

analysis of the company with help of key ratios. Altman's Z score as an indicator of financial distress would also be applied to the company. Also an enquiry will be envisaged to see if the high debt-equity ratio and negative net worth act as an incentive or hurdle in takeover decision.

Main Issues: Capital Structure size and composition and its impact on long term sustainability of a firm, Adverse Debt-Equity ratio and its implications for M&A decision. Altman's Z score as an indicator of financial distress

Functional Areas: Corporate Finance, Fundamental analysis and M&A decisions.

Keywords: Indian Steel Industry, Capital Structure, Leverages, EBIT-EPS Analysis, Altman's Z Score, Profitability, Ratio Analysis

1. INTRODUCTION:

Sushant Sinha was a proud Marathi-Manus from Nagpur. He was a seasoned investor in the stock markets and had already made a fortune by investing in stock markets. An IIT Graduate with an MBA from IIM-B, Sushant was hopeful that the new Government at the center and at the state would do wonders for the Indian economy and more so for the state of Maharashtra, which had lost its Numero Uno status to Gujarat. He was looking at his native region through the eyes of an investor. He was surfing on www with the key word "Vidarbha".

Vidarbha is the eastern region of the Indian state of Maharashtra, comprising Nagpur Division and Amravati Division. Situated in central India, Vidarbha has its own rich cultural and historical background distinct from rest of Maharashtra. The largest city in Vidarbha is Nagpur. The Nagpur region is famous for growing oranges and cotton. Vidarbha holds two-thirds of Maharashtra's mineral resources and three-quarters of its forest resources, and is a net producer of power. The Chandrapur, Gondia, Gadchiroli, Bhandara and Nagpur Districts form the main mineral belt, with coal and manganese as the major minerals. Chandrapur district alone contributes 29% of all mineral output of Maharashtra. Iron ore and limestone are identified as potential mining resources.

Traditionally Vidarbha has lagged behind western Maharashtra in industrial growth. Various incentives were granted to attract industries but have failed. Butibori Industrial Area MIDC outside Nagpur is one of the largest industrial areas in country but few industries have actually opened there. MIHAN an international cargo hub project is currently underway at Nagpur. The project aims to exploit the central location of Nagpur and convert the present airport into a major freight hub with integrated road and rail connectivity along with a Special Economic Zone. Ballarpur Industries, India's largest manufacturer and exporter of paper is located in Chandrapur district.

In 2014, the political landscape in Maharashtra and more specifically in Vidarbha was fast changing. Bhartiya Janata Party (BJP) had emerged as the single largest party in the assembly elections and Mr. DevendraFadnavis became the Chief Minister. Analysts were reading a lot into this development and hinted that this would help in the development of Nagpur and Vidarbha as the Chief Minister hails from this part of the large state. There were several initiatives from the Govt which reinforced the aforesaid claim of the analysts. For instance, in an interview with TOI, Fadnavis said "Industrializing Vidarbha is my first priority. The region is industrially as well as economically backward; hence it will be given priority over industrialized parts of the state."

As an incentive for 'Make in Vidarbha', the government has decided to waive off cross subsidy surcharge (CSS) in Vidarbha so that industries can purchase power from outside at cheap rates. The CM has told the MIDC industrialists to take full advantage of the sops being given to them.

When the CM was in Davos to attend the World Economic Forum, he spoke to several multinational companies about the advantages of investing in Vidarbha. French multinational aircraft company Safran, world leader in spirits manufacturing Diageo, Australian multimillion dollar packaging and recycling company Visy, and South Korean industrial conglomerate Hyosung are some of the companies that have evinced business interest in Nagpur. Fadnavis also decided to shift four sick textile mills of Mumbai to Amravati. The CM has made it a rule that if a textile mill owner wants to shut shop and use the land for real estate; he will have to shift the factory elsewhere so that there is no loss of employment. This policy is expected to benefit the backward regions of the state.

Fadnavis' mission to reduce the number of permits and clearances needed by industries to start and run a unit from 75 to 25 has also picked up pace and is delivering satisfactory results.Talking to TOI, he said, "About 40 of the 75 rules have either been scrapped or modified. For example, the industries department has reduced the number of permits and compliances from 15 to 5. There are some statutory clearances like the one under Shops and Establishments Act. Here the period for issuing a permit has been reduced to three days. If it is not issued within three days then it will be deemed to have been issued."

According to the Economic Survey of Maharashtra for 2013-14, from August 1991 to October 2013, 18,406 proposals with Rs 10,21,633 crore investment were approved. Of these, 7,812 projects (42.4%) with an investment of Rs 1,82,273 crore (17.8%) were commissioned, generating 9.61 lakh employment.

Since August 1991 to March 2012, 4,246 Foreign Direct Investment projects (of 20,643 in India) worth Rs 97,799 crore were approved (against Rs 4,25,811 crore at the all-India level), of which 45% were commissioned and 10% are under execution with an investment share of 51% and 8% respectively. The IT industry leads approved FDI projects followed by financial services, hotel and tourism and business management consultancy.

While he was worried about the industrial growth in the region, he could scan through the handful listed companies from the region. What attracted his attention was a company called Factor Steels ltd. with lowest value of Rs.0.40 for a share with Face Value of Rs.1 each on 26th March 2015. He started fathoming in to steel sector of India as a first steps in fundamental analysis i.e. Economy and Sectorial analysis.

2. STEEL SECTOR OVERVIEW:

Steel as a sector was not directly targeted but other sectors like Automobiles, Auto Components, Construction, Defense, Electrical Machinery, Ports and Railways were targeted. These sectors are expected to give boost to the demand for steel.

India was the world's fifth largest producer of crude steel in 2009 and is expected to become the world's second largest producer by 2015–2016. These are the projections made by Ernst & Young in a report on the outlook of Indian Steel industry.

The report also projects the total crude steel capacity in India to be around 112.5 million tonnes by 2015. It also notes that India is the world's fourth largest iron ore producer, with sufficient iron ore reserves to meet expected steel demand.

According to the Ministry of Steel Annual Report 2010-11, India remains world's largest producer of direct reduced iron (DRI) or sponge iron during January / December 2010, a rank it has held since 2002.

The annual report statistics estimate the Crude steel production to be 50.59 million tonne during April - Dec 2010. Pig iron production for sale in April - December 2010 was 4.22 million tonne. Domestic steel consumption was at 44.28 million tonne during the period.

The Indian steel sector enjoys advantages of domestic availability of raw materials and cheap labor. Iron ore is also available in abundant quantities. This provides major cost advantage to the domestic steel industry, with companies like Tata Steel being one of the lowest cost producers in the world.

Being a core sector, steel industry reflects the overall economic growth of an economy in the long term. Also, steel demand, being derived from other sectors like automobiles, consumer durables and infrastructure, its fortune is dependent on the growth of these user industries.

While steel continues to have a stronghold in traditional sectors such as construction, housing and ground transportation, special steels are increasingly used in engineering industries such as power generation, petrochemicals and fertilizers. Indian steel industry is very modern with state-of-the-art steel mills. It has always strived for continuous modernization& up-gradation of older plants and higher energy efficiency levels.

According to the Ministry of Steel, Steel producers have signed 222 MOU's with various states for a planned capacity of about 275.7 million tons in 2009-10.

Investment Policy

Indian investment policy stipulates 100 per cent foreign direct investment (FDI) through the automatic route in the Indian steel sector.

Some of the initiatives taken by the government to promote the steel sector include National Steel Policy 2005, which seeks to facilitate the removal of procedural and policy bottlenecks that affect the availability of production inputs, increased investment in research and development, and the creation of road, railway and port infrastructure.

Some initiatives undertaken by the Indian Government in the Eleventh Plan to promote the steel sector include:

- The Planning Commission has approved a total outlay of US$ 9.5 billion for the development and promotion of the iron and steel sector.
- The scheme for the promotion of research and development in the iron and steel sector has been approved with a budgetary provision of US$ 24.6 million to initiate and implement the provisions of the scheme.
- The National Steel policy 2005 targets indigenous production of 110 million tonnes (mt) by 2019-20 against targeted consumption of 90 mt by 2019-20.
- The Eleventh plan working group for steel recommends the following for effective development of Indian steel industry:
- Full utilization of the existing policy framework of Public-Private Partnerships (PPPs) in development of infrastructure like Railways.
- "Scheme for promotion of Research and Development in Iron & Steel sector" with a budgetary provision of Rs. 1,180 million for implementation. The objective of the scheme is to develop path-breaking technologies in an environment friendly manner.

- Spread awareness about hedging mechanisms available in exchanges like MCX and NCDX and develop appropriate regulatory mechanism to avoid any manipulative practices.
- Develop an appropriate Institutional Framework for collection of data and dissemination of Information.
- Consider setting up of a multi-disciplinary organization along the lines of the International Iron & Steel Institute (IISI).
- A dedicated plan fund of Rs. 250 million for the 11th Five Year Plan in the Ministry of Steel towards grant for development of human resources for iron and steel and for ad campaigns for promotion of steel usage.
- A Technology Up-gradation Fund Scheme (TUFS) for the Small and Medium Enterprises (SME) sector.

Moreover, in order to encourage R&D activities in iron & steel sector, Ministry of Steel is providing financial assistance from Steel Development Fund (SDF) and Plan Fund. Sixty four research projects initiated by public and private undertakings, research laboratories, educational and other promotional institutions have so far been approved at a cost of Rs. 4,420 million during 2010, of which the SDF component is Rs. 2,780 million. So far 31 projects have been completed and 24 research projects are underway.

The government introduced Special Economic Zones (SEZs) in June 2005, with the plan of creating internationally competitive regions. Steel plants operating in SEZs receive some advantages like tax holiday; they can freely source inputs domestically or externally without any specific approval or duty payable.

Market Highlights

More than 3,500 different varieties of steel are available in the steel industry of India. These can however be classified into two broad categories of flat products and long products. Flat products include plates and hot rolled sheets such as coils and sheets. Flat products are derived from slabs. One of the major uses of steel plates is in ship building. Long products include bars, rods, wires, ropes and piers. These are called long products due to their shapes. Long products are made from billets and blooms. Long products are mostly used in housing and construction and also in rail tracks.

Iron ore and coal constitute the primary raw materials for steel production. One of the growth drivers helping the sector to grow is abundant availability of iron ore in the country with States such as Orissa, Jharkhand and Chhattisgarh which are rich in iron ore reserves. The National Minerals Development Corporation (NMDC) plans to expand its iron ore production capacity from its existing capacity of 30 million tons per annum (MTPA) to 50 MTPA by 2014–15 through the capacity expansion of current mines as well as by setting up new mines. Further, India also has well established facilities for the production of steel. India's steel sector also has a competitive advantage vis-à-vis the availability of raw materials and workforce, both skilled and unskilled.

Major Players

Indian steel Industry can be divided into two main sectors Public sector and Private sector. Further on the basis of routes of production, the Indian steel industry can be divided into two types of producers: Integrated producers and Secondary producers.

Integrated producers convert iron ore into steel. There are three major integrated steel players in India, namely Steel Authority of India Limited (SAIL), Tata Iron and Steel Company Limited (TISCO) and RashtriyaIspat Nigam Limited (RINL).

Secondary producers are the mini steel plants (MSPs), which make steel by melting scrap or

sponge iron or a mixture of the two. Essar Steel, Ispat Industries and Lloyds steel are the largest producers of steel through the secondary route. FACTOR Steels belongs to this group.

Foreign Players

The Indian steel industry is also receiving significant foreign investments such as POSCO, a South Korean steel producer and Arcelor - Mittal Group, Europe based steel producer—announcing plans for establishing about 12 million tonne production units each in India.

Other foreign players who have set foot in India are Japan's Nippon Steel in joint venture with Tata Steel for making cold rolled sheets; Japan's JFE Holdings in talks with JSW for a stake buy; Japan's Kobe Steel and SAIL in talks for a joint venture and Russia's Severstal and NMDC in joint venture to a build steel plant.

Sector Prospects

According to the Indian Ministry of Steel, the present per capita consumption of steel in the country is only around 49 kg against the world average of 182 kg. So there is immense

potential for growth of the sector. The ministry also predicts that India is expected to become the second largest producer of steel in the world by 2015-16, provided all requirements for fresh capacity creation are met.

"Over the next couple of years, there could be mergers and acquisitions, particularly in the sponge iron sector," predicts Kejriwal Research & Investment Services, referring to the hundreds of small units, many of which are unviable. In 2010, JSW Steel bought a controlling stake in Ispat Industries, a steel company in Nagpur. Can FACTOR Steels also be acquired by a bigger firm and thereby provide some benefit to the shareholders? Sushant kept pondering over this idea.

Sushant being perplexed with the situation of FACTOR Steels, calls up his friends to engage into a brain storming session to decide upon what lies in future for a company like FACTOR Steels. While they were discussing the prospects of the company, Sushant's friends were putting forward the view that the Debt-Equity ratio of the company is proving to be the hurdle for its turnaround or takeover chances. The figures read as follows:

Year	Mar '04	Mar '05	Mar '06	Mar '07	Mar '08	Mar '09	Mar '10	Mar '11	Mar '12	Mar '13	Mar '14
Networth	4.9	13.77	17.67	23.07	24.95	19.67	13.08	24.54	25.87	8.64	-19.4
Total Debt	15.51	15.65	29.62	33.64	58.52	79.31	70.4	69.98	64.62	84.16	98.37
Debt Equity Ratio	3.1653	1.1365	1.6763	1.4582	2.3455	4.032	5.3823	2.8517	2.4979	9.7407	-5.0706

High debt and erosion of net worth prompted them to take up the ultimate step in fundamental analysis i.e. company analysis.

Company Overview

Founded in 1955 as FACTOR Group, today is one of the India's Largest and established producers and exporters of High Carbon Ferro Chrome/Charge Chrome worldwide, an essential ingredient for the manufacture of steel and stainless steel.

The Group that started its journey with a Ferro Manganese Plant in Shreeramnagar, Andhra Pradesh to produce Ferro Manganese, diversified into various types of Ferro Alloys. Further, it established a large Chrome Ore mining complex at Bhadrak in the State of Orissa followed by the first Charge Chrome plant in 1981. FACTOR also diversified into alloys and steel production in Nagpur, Maharashtra.

FACTOR Steels Ltd. is a Carbon, Alloy, Stainless and Special steel manufacturer in Central India with varied and broad product range, having the most modern state-of-the-art

steel processing and quality assurance technologies. It has established updated and modernized manufacturing facilities for achieving consistency of product quality to ensure full customer satisfaction both in domestic and international markets. Its products are well accepted all over the globe. The Stainless steel and other specialty critical grade products cater to the most stringent requirements of automobiles, railways, defence and engineering sectors.FACTOR STEELS Ltd. produces and sells high quality stainless steels and specialty steels that meet a variety of demands.

Industries being catered by FACTOR today are:

Automobile & Auto Component Industry	Petrochemical
Boilers	Railway Springs
Construction	Surgical Equipment Industry
Engineering Components	Tool Industry
Fasteners Industry	Valve Industry
Forging	Sugar Industry

FACTOR also supplies special steel for critical applications like Aerospace, pressure equipments etc. and has successfully developed over 500 steel grades over a period of time.

To cater the growing demand from auto sector and heavy engineering sector for forged rounds, FACTORSteels Ltd. has set up a modern forging unit at its existing plant and the commercial production has started from 10th July, 2009 onwards. The company with its enhanced capacity of ingot production and capability to provide higher diameter forged rounds is ready to fulfill the global and domestic demand in Non-auto sectors like Sugar Mills, Cement Plants, HeavyMachinery Units etc. There is a huge supply-demand gap in this sector and FACTORSteels Ltd. is rightly poised to cater to this segment.

FACTOR Steels Ltd. is accredited for their quality management system by ISO/TS 16949 - 2002, AO 2000-Merkblatt WO & PED 97/23/EC, also they are going for certification

of Lloyds Register & DNV for supplies to Ship Building Industry.

Shri.N. P. Sarat, Chairman of the company at the 11th annual general meeting of the company held at the registered office of the company at Nagpur (Maharashtra) on 11th September, 2014 addressed the shareholders like this:
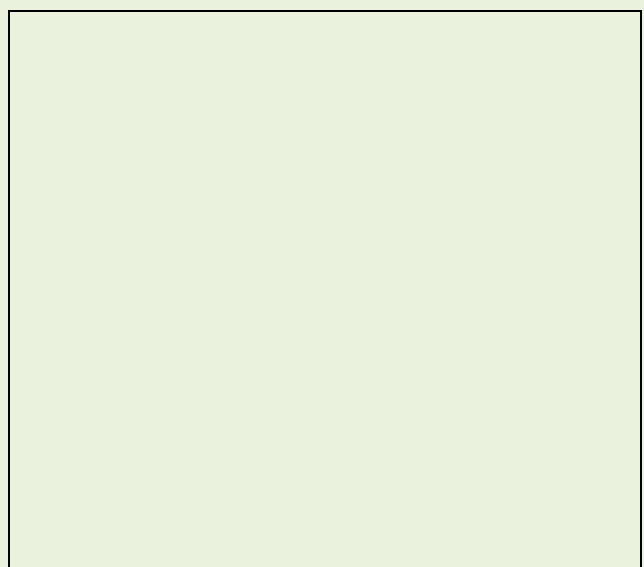
Dear Shareholders,

Good Afternoon,

I welcome all of you to the 11th Annual General Meeting of the Company.

The Annual Report along with the Directors' Report and the Audited Accounts for the year ended 31st March, 2014 have already been circulated to all of you concerned and with your permission, I shall take them as read.

The financial year 2013-14 was very tough period for the company as the steel plant of the company remained closed for most of the time during the year. Your company had declared consensus lock-out in its steel plant in January, 2013 owing to lack of financial resources and lower demand in the market for its products. The lockout was lifted after Bankers approved the CDR Package for the company, however in spite of having received restructured financial package from the Bankers, your company was not able to carry out its operations properly due to continued recessionary trend that prevailed throughout the financial year in the market. The capacity utilization of the plant declined significantly then the anticipated levels and this in turn was resulting into heavy cash losses for the company. By the end of the financial year the entire net-worth of the company got eroded and debt trap was looming large over the company due to dried up liquidity position.

Under these conditions your company had no other option, then to shut down the operations of its steel plant, till the time conditions in the marker improved. Accordingly, with the help of its workers and staff, the company once again declared consensus lock-out in its steel plant w.e.f. 30th May, 2014.

In spite of its best efforts and infusion of funds by the Promoters over the last several years, your company has not been able to arrest losses and as a result the entire net-worth of the company has been eroded during the financial year 2013-14 and the company has become a sick company as defined under section 3(1)(o) of Sick Industrial Companies (Special Provisions) Act, 1985 (SICA). In accordance with the provisions of Section 15(1) of SICA, your company has filed a reference with Hon'ble Board for Industrial and Financial Reconstruction (BIFR), New Delhi, within 60 days from the date of finalization of duly audited accounts of the company and reasons for erosion of net-worth has been explained in detail in the Director's Report sent to all the shareholders.

The Management of the company is constantly exploring various alternatives to revive the operations of the company and believes that there could be increase in demand for steel products in coming future, which may revive the fortunes of your company.

Before I conclude, I express my deep sense of gratitude &indebtness towards our fellow employees and workers who stood by our side and supported wholeheartedly the company's decision to lock-out operations second time in span on one year, even at their own cost to secure a better future for the company. I specially thank CDR Cell and our Bankers for standing by us and lending us much needed support and finance in tough time and believing in our ability and sincerity to revive the operations of the company while restructuring our debt and business. I also extend my gratitude to our investors, bankers and business partners who have endowed their faith on us and have stood by us through the ups and downs. I would also take this opportunity to thank all the members on the Board for their valuable advice, guidance and support.

Thank you.

Sushant is now thinking on three questions.

a) Can this company be revived through some turnaround strategy and if yes, is it still a good investment bait. Will anyone invest in it at current market price?

b) Is it true that theory / some model like Altzman's Z score could have forecasted correctly the situation of Financial distress well in advance.

c) The fact that the company has more debt and eroded net worth makes it good or bad target for acquisition.

While the above three questions were bothering him, the bigger question was can make in India be made more successful by adopting a turnaround strategy for such units which could not withstand the test of time and opportunity

Exhibit A: Balance Sheet of FACTOR Steels Ltd. Figures in 'crores.

Sources of Funds	Mar '04	Mar '05	Mar '06	Mar '07	Mar '08	Mar '09	Mar '10	Mar '11	Mar '12	Mar '13	Mar '14
Total Share Capital	15.92	25.03	22.16	22.16	20.65	20.65	20.65	35.65	45.65	53.43	53.43
Equity Share Capital	0.41	11.88	20.65	20.65	20.65	20.65	20.65	20.65	20.65	20.65	20.65
Share Application Money	0	0	0	0	0	0	0	0	0	0	0
Preference Share Capital	15.52	13.15	1.51	1.51	0	0	0	15	25	32.78	32.78
Reserves	-11.02	-11.26	-4.49	0.91	4.3	-0.98	-7.57	-11.11	-19.78	-44.79	-72.83
Networth	4.9	13.77	17.67	23.07	24.95	19.67	13.08	24.54	25.87	8.64	-19.4
Secured Loans	15.51	15.57	26.45	26.13	29.28	32.15	25.29	56.53	49.16	55.42	54.45
Unsecured Loans	0	0.08	3.17	7.51	29.24	47.16	45.11	13.45	15.46	28.74	43.92
Total Debt	15.51	15.65	29.62	33.64	58.52	79.31	70.4	69.98	64.62	84.16	98.37
Total Liabilities	20.41	29.42	47.29	56.71	83.47	98.98	83.48	94.52	90.49	92.8	78.97

Year	Mar '04	Mar '05	Mar '06	Mar '07	Mar '08	Mar '09	Mar '10	Mar '11	Mar '12	Mar '13	Mar '14
Networth	4.9	13.77	17.67	23.07	24.95	19.67	13.08	24.54	25.87	8.64	-19.4
Total Debt	15.51	15.65	29.62	33.64	58.52	79.31	70.4	69.98	64.62	84.16	98.37
Debt Equity Ratio	3.1653	1.1365	1.6763	1.4582	2.3455	4.032	5.3823	2.8517	2.4979	9.7407	-5.07066

Exhibit B: Balance Sheet of FACTOR Steels Ltd.

Application Of Funds	Mar '04	Mar '05	Mar '06	Mar '07	Mar '08	Mar '09	Mar '10	Mar '11	Mar '12	Mar '13	Mar '14
Gross Block	48.45	50.55	53.12	55.77	58.35	68.04	73.71	93.4	95.34	94.22	95.15
Less: Revaluation Reserves	0	0	0	0	0	0	0	0	0	0	0
Less: Accum. Depreciation	19.19	22.11	25.26	28.42	31.50	35.18	39.14	33.78	37.66	40.83	44.60
Net Block	29.26	28.44	27.86	27.35	26.85	32.86	34.57	59.62	57.68	53.39	50.55
Capital Work in Progress	0.90	0.07	1.02	0.80	11.48	25.24	30.63	0.42	0.08	0	0.10
Investments	0	0	0	0	0	4.40	4.40	4.40	4.40	4.40	4.40
Inventories	53.93	76.81	48.35	63.59	85.33	58.88	52.63	70.69	78.44	31.33	45.54
Sundry Debtors	5.59	5.73	14.07	19.24	23.90	19.47	31.42	27.21	25.19	10.89	12.44
Cash and Bank Balance	0.42	1.81	0.92	1.51	7.71	3.20	1.30	3.79	4.05	8.90	6.17
Total Current Assets	59.94	84.35	63.34	84.34	116.94	81.55	85.35	101.69	107.68	51.12	64.15
Loans and Advances	9.17	9.20	15.61	23.70	26.33	13.45	12.37	16.31	17.07	11.78	14.70
Fixed Deposits	2.20	2.62	0.22	0.06	1.30	0.76	1.23	0	0	0	0
Total CA, Loans & Advances	71.31	96.17	79.17	108.10	144.57	95.76	98.95	118.00	124.75	62.90	78.85
Deferred Credit	0	0	0	0	0	0	0	0	0	0	0
Current Liabilities	80.95	95.10	60.21	77.94	97.23	58.58	84.37	87.37	95.70	27.67	54.59
Provisions	0.11	0.17	0.54	1.60	2.20	0.70	0.70	0.56	0.72	0.22	0.35
Total CL & Provisions	81.06	95.27	60.75	79.54	99.43	59.28	85.07	87.93	96.42	27.89	54.94
Net Current Assets	-	0.90	18.4	28.56	45.14	36.4	13.8	30.07	28.33	35.0	23.9

9.75		2			8	8			1	1
Miscellaneous Expenses	0	0	0	0	0	0	0	0	0	0
Total Assets	20.41	29.41	47.30	56.71	83.47	98.98	83.48	94.51	90.49	92.80	78.96

Contingent Liabilities	0.30	2.71	2.90	5.66	8.50	4.96	2.49	3.03	2.98	2.98	3.59

Exhibit C: Profit & Loss Account

Income	------------------ in Rs. Cr. ------------------										
	Mar '04	Mar '05	Mar '06	Mar '07	Mar '08	Mar '09	Mar '10	Mar '11	Mar '12	Mar '13	Mar '14
Sales Turnover	192.51	340.68	331.13	420.67	472.09	366.26	220.34	276.64	314.21	248.26	65.93
Excise Duty	-0.02	0.05	0.22	0.10	0.09	-0.27	0.03	0.00	0.00	0.00	0.00
Net Sales	192.53	340.63	330.91	420.57	472.00	366.53	220.31	276.64	314.21	248.26	65.93
Other Income	3.89	0.10	1.63	5.51	8.11	5.35	11.30	1.63	0.77	0.51	0.44
Stock Adjustments	6.73	14.69	-2.61	5.73	22.92	-20.39	-1.93	16.51	3.35	-41.06	13.73
Total Income	**203.15**	**355.42**	**329.93**	**431.81**	**503.03**	**351.49**	**229.68**	**294.78**	**318.33**	**207.71**	**80.10**

Expenditure	Mar '04	Mar '05	Mar '06	Mar '07	Mar '08	Mar '09	Mar '10	Mar '11	Mar '12	Mar '13	Mar '14
Raw Materials	162.61	304.82	272.85	349.91	413.21	269.98	159.81	203.56	226.59	154.29	55.11
Power & Fuel Cost	16.97	19.11	20.62	30.18	32.09	27.28	30.18	36.93	42.55	27.76	14.84
Employee Cost	6.33	7.92	8.03	9.97	12.82	13.30	13.03	15.60	17.38	15.56	10.87
Other Manufacturing Expenses	3.31	5.76	5.45	6.91	8.31	8.52	8.20	0.00	0.00	0.00	0.00
Selling and Admin Expenses	3.17	8.47	9.70	12.72	12.85	12.57	8.34	0.00	0.00	0.00	0.00
Miscellaneous Expenses	3.25	3.70	5.22	6.48	8.30	10.34	4.59	26.81	27.17	24.26	13.82
Preoperative ExpCapitalised	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Expenses	195.64	349.78	321.87	416.17	487.58	341.99	224.15	282.90	313.69	221.87	94.64

	Mar '04	Mar '05	Mar '06	Mar '07	Mar '08	Mar '09	Mar '10	Mar '11	Mar '12	Mar '13	Mar '14
Operating	3.62	5.54	6.43	10.13	7.34	4.15	-5.77	10.25	3.87	-	-

Profit										14.67	14.98
PBDIT	7.51	5.64	8.06	15.64	15.45	9.50	5.53	11.88	4.64	-14.16	-14.54
Interest	7.98	3.55	4.41	5.88	8.03	9.93	7.46	7.22	7.87	10.01	8.14
PBDT	-0.47	2.09	3.65	9.76	7.42	-0.43	-1.93	4.66	-3.23	-24.17	-22.68
Depreciation	1.53	3.04	3.18	3.18	3.29	3.71	3.97	5.48	5.43	5.49	5.37
Other Written Off	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Profit Before Tax	-2.00	-0.95	0.47	6.58	4.13	-4.14	-5.90	-0.82	-8.66	-29.66	-28.05
Extra-ordinary items	0.94	1.83	4.45	-0.09	-0.73	-0.04	-0.02	0.00	0.00	0.00	0.00
PBT (Post Extra-ord Items)	-1.06	0.88	4.92	6.49	3.40	-4.18	-5.92	-0.82	-8.66	-29.66	-28.05
Tax	-1.18	1.15	0.21	1.10	0.63	1.09	0.67	2.71	0.00	-4.66	0.00
Reported Net Profit	-3.57	-0.25	4.70	5.40	2.77	-5.27	-6.59	-3.54	-8.67	-25.01	-28.05
Total Value Addition	33.02	44.95	49.02	66.25	74.37	72.01	64.34	79.34	87.10	67.58	39.52

Exhibit D: Book Value of FACTOR Steels Ltd.

Per share data (annualized)	Mar '04	Mar '05	Mar '06	Mar '07	Mar '08	Mar '09	Mar '10	Mar '11	Mar '12	Mar '13	Mar '14
Shares in issue (lakhs)	40.64	1187.98	2065.24	2065.24	2065.24	2065.24	2065.24	2065.24	2065.24	2065.24	2065.24
Earnings Per Share (Rs)	-8.78	-0.02	0.23	0.26	0.13	-0.26	-0.32	-0.17	-0.42	-1.21	-1.36
Equity Dividend (%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Book Value (Rs)	-26.11	0.05	0.78	1.04	1.21	0.95	0.63	0.46	0.04	-1.17	-2.53

Source: Dion Global Solutions Limited

Exhibit E : 6 Months Price Volume Chart

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☐**Case Synopsis:-**

Sushant Sinha was a proud Marathi-Manus from Nagpur. He was a seasoned investor in the stock markets and had already made a fortune by investing in stock markets. An IIT Graduate with an MBA from IIM-B, Sushant was hopeful that the new Government at the center and at the state would do wonders for the Indian economy and more so for the state of Maharashtra, which had lost its Numero Uno status to Gujarat.

The election of 2014 was in more ways than one a landmark election in the history of Indian politics. A prominent initiative of the incumbent government was "Make in India". Taking a clue from the centre, the government in Maharashtra also followed the band-wagon. Meanwhile, Sushant came across a PwC report which said that India will be the fastest developing economy in 2015-16. The report made Sushant wonder – whether his native region has a potential star which is missing from his investment portfolio. He thought that an initiative like "Make in India" should primarily help the basic industries like Cement, Steel, Power, etc.

Steel, captured his imagination and he started collecting information. Prominent Steel manufacturers in the region included JSW Steel, Jayaswal'sNeco, Sunflag Steels, FACTOR Steels and Bajaj Steels. It is notable that JSW Steel after acquiring Ispat Steels scored over TATA Steels to become the largest steel player in the domestic market. At the end of FY-14, FACTOR Steels had a balance sheet size of Rs. 134 crores, Sunflag Steels had a balance sheet size of Rs. 1310 crores, JayaswalNeco Industries Ltd. had a balance sheet size of Rs. 6580 crores and JSW Steels had a balance sheet size of Rs. 49259 crores. The PAT figures for FY-14 were – FACTOR Steels showed Net Loss of Rs. 28.05 crores, Sunflag Steels showed Net Profit of Rs. 21.68 crores, JayaswalNeco Industries showed a Net Profit of Rs. 62.13 crores and JSW Steels showed a Net Profit of Rs. 1, 334 crores.

The financial year 2013-14 was very tough period for the FACTOR as the steel plant of the company remained closed for most of the time during the year. Your company had declared consensus lock-out in its steel plant in January, 2013 owing to lack of financial resources and lower demand in the market for its products. The lockout was lifted after Bankers approved the CDR Package for the company, however in spite of having received restructured financial package from the Bankers, your company was not able to carry out its operations properly due to continued recessionary trend that prevailed throughout the financial year in the market. The capacity utilization of the plant declined significantly then the anticipated levels and this in turn was resulting into heavy cash losses for the company. By the end of the financial year the entire net-worth of the company got eroded and debt trap was looming large over the company due to dried up liquidity position.

Under these conditions the company had no other option, than to shut down the operations of its steel plant, till the time conditions in the marker improved. Accordingly, with the help of its workers and staff, the company once again declared consensus lock-out in its steel plant w.e.f. 30th May, 2014.

In spite of its best efforts and infusion of funds by the Promoters over the last several years, the company has not been able to arrest losses and as a result the entire net-worth of the

company has been eroded during the financial year 2013-14 and the company has become a sick company as defined under section 3(1)(o) of Sick Industrial Companies (Special Provisions) Act, 1985 (SICA). In accordance with the provisions of Section 15(1) of SICA, your company has filed a reference with Hon'ble Board for Industrial and Financial Reconstruction (BIFR), New Delhi, within 60 days from the date of finalization of duly audited accounts of the company and reasons for erosion of net-worth has been explained in detail in the Director's Report sent to all the shareholders.

The ensuing case deals with the dynamics of the Steel industry set in the backdrop of the Vidarbha region. The case also gives an insight into the contemporary economic environment with the help of macro-economic data and demand dynamics as given by prominent research and Government agencies. With the help of these and several other exhibits an attempt shall be made to discuss capital structure issues and its impact on profitability and long term sustainability. The main objective of the case would be to evaluate FACTOR Steels as a probable takeover candidate in the backdrop of make in India-Maharashtra-Vidarbha. An attempt is made to carry on fundamental analysis of the company with help of key ratios. Altman's Z score as an indicator of financial distress would also be applied to the company. Also an enquiry will be envisaged to see if the high debt-equity ratio and negative net worth act as an incentive or hurdle in takeover decision.

 Learning objectives

The case is written in order to provide insights into fundamental analysis of small listed steel company in the backdrop of make in India campaign. On one side the government is trying to create employment to give justice to the demographic dividend and on other side the running unit is on the verge of closure. The idea here is to check the possibility of this distressed unit being acquired by some major from within or outside country. The case tries to put forward conflicting views on the fundamentals of the company which make or mar its prospects of being acquired. The Altzman's Z score model is also put to test so as to check the timing and extent of financial distress. An insight in to ratio analysis based evaluation is also involved.

 Assignment questions

1. Can this company be revived through some turnaround strategy and if yes, is it still good investment bait. Will anyone invest in it at current market price?
2. Is it true that theory / some model like Altzman's Z score could have forecasted correctly the situation of financial distress well in advance?
3. The fact that the company has more debt and eroded net worth makes it good or bad target for acquisition.
4. The make in India-Maharashtra-Vidarbha campaign should consider or ignore the units like this for its success?

 Teaching plan

The case being multifaceted covering both corporate and strategic financial management area, should start with the background of Make in India-Maharashtra-Vidarbha campaign, its objectives, context and sectors targeted. Next the concept and tool of fundamental analysis need to be briefed.

The top-down approach to fundamental analysis starts analysis with global economics, including both international and national economic indicators; such as GDP growth

rates, <u>inflation</u>, <u>interest rates</u>, <u>exchange rates</u>, <u>productivity</u>, and energy prices. They subsequently narrow their search to regional/industry analysis of total sales, price levels, the effects of competing products, foreign competition, and entry or exit from the industry. Only then do they refine their search to the best business in the area being studied.

The amount of debt a company possesses is also a major consideration in determining its health. It can be quickly assessed using the <u>debt-to-equity ratio</u> and the *current ratio* (current assets/current liabilities). The simple model commonly used is the <u>P/E ratio</u> (price-to-earnings ratio). Growth estimates are incorporated into the <u>PEG ratio</u>. Its validity depends on the length of time analysts believe the growth will continue. IGAR models can be used to impute expected changes in growth from current P/E and historical growth rates for the stocks relative to a comparison index.

Then the analysis will make use of the Annual Reports to understand the views of the top management on the problems and the prospects of the company. This will help reader in understanding the chronology of events which has led to present crisis situation. This analysis can help in attempting the question - whether the company can be revived or not?

Next will be the turn of **Altman's Z score model of predicting financial distress.** The Altman Z-Score is an empirical model that predicts the probability of corporate bankruptcy.

Also ALM model of evaluating Balance sheets can be briefed to support the Z score findings.

Next step will be to deliberate on the Capital structure of the company & book Value of the company so as to see pros and cons of eroded net worth coupled with around 100 crores (US$ 16 Million) of Debt. The payment of debt shall mean acquisition of company. The other parameters to be considered in M&A

decision shall also be discussed. The same analysis will lead to suggested approach for Make in India campaign.

 Analysis (suggested/possible answers to assignment questions)

The calculations made in Exhibit E and data on volume chart suggests that there is still trading and hope in the stock. Fundamentally although the stock appears weak, the valuations look attractive.

The company can be revived from here and can become competitive with technology up gradation.

The Z scores could have predicted the financial distress well in advance around year 2010.

The make in India-Maharashtra-Vidarbha campaign should consider the units like this for its success as the units like this need better management and scale to be profitable. This will save the gestation time of the investor.

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 Teaching note Exhibits (e.g., financial analysis, summary of theory application)

Exhibit E: Key Financial Ratios of FACTOR Steels Ltd.

Investment Valuation Ratios	Mar '04	Mar '05	Mar '06	Mar '07	Mar '08	Mar '09	Mar '10	Mar '11	Mar '12	Mar '13	Mar '14
Face Value	1	1	1	1	1	1	1	1	1	1	1
Dividend Per Share	--	--	--	--	--	--	--	--	--	--	--
Operating Profit Per Share (Rs)	8.79	0.47	0.31	0.49	0.36	0.19	-0.28	0.50	0.19	-0.71	-0.73
Net Operating Profit Per Share (Rs)	473.72	28.67	16.02	20.36	22.85	17.73	10.67	13.39	15.21	12.02	3.19
Free Reserves Per Share (Rs)	-27.11	-0.95	-0.32	-0.06	0.08	-0.18	-0.50	--	--	--	--
Bonus in Equity Capital	--	--	--	--	--	--	--	--	--	--	--

Profitability Ratios	Mar '04	Mar '05	Mar '06	Mar '07	Mar '08	Mar '09	Mar '10	Mar '11	Mar '12	Mar '13	Mar '14
Operating Profit Margin (%)	1.85	1.63	1.94	2.41	1.55	1.05	-2.61	3.70	1.23	-5.91	-22.71
Profit Before Interest And Tax Margin (%)	1.05	0.74	0.97	1.63	0.84	0.04	-4.22	1.71	-0.49	-8.10	-30.66
Gross Profit Margin (%)	-2.14	0.61	1.15	1.65	0.85	0.04	-4.42	1.72	-0.49	-8.12	-30.86

	Mar '04	Mar '05	Mar '06	Mar '07	Mar '08	Mar '09	Mar '10	Mar '11	Mar '12	Mar '13	Mar '14
Cash Profit Margin (%)	-1.05	0.81	2.37	2.03	1.41	-0.47	-1.53	0.69	-1.02	-7.84	-34.16
Adjusted Cash Margin (%)	-1.52	0.28	1.03	2.03	1.41	-0.47	-1.53	0.69	-1.02	-7.84	-34.16
Net Profit Margin (%)	-1.85	-0.07	1.41	1.26	0.57	-1.41	-2.85	-1.27	-2.75	-10.05	-42.26
Adjusted Net Profit Margin (%)	-2.32	-0.61	0.07	1.26	0.57	-1.41	-2.85	-1.27	-2.75	-10.05	-42.26
Return On Capital Employed (%)	11.35	8.92	10.3	21.99	14.55	5.58	0.75	6.76	-0.87	-21.17	-25.21
Return On Net Worth (%)	-72.74	-1.78	26.62	25.02	11.09	-26.8	-50.42	-37.10	-990.96	103.62	53.75
Adjusted Return on Net Worth (%)	--	-337.54	1.58	25.46	14.01	-27.90	-57.36	-37.10	-990.96	--	--
Return on Assets Excluding Revaluations	-26.11	0.05	0.78	1.04	1.21	0.95	0.63	0.46	0.04	-1.17	-2.53
Return on Assets Including Revaluations	-26.11	0.05	0.78	1.04	1.21	0.95	0.63	0.46	0.04	-1.17	-2.53
Return on Long Term Funds (%)	11.49	9.22	16.14	35.26	33.68	13.09	2.03	11.14	-1.45	-32.28	-41.47

Liquidity And Solvency Ratios	Mar '04	Mar '05	Mar '06	Mar '07	Mar '08	Mar '09	Mar '10	Mar '11	Mar '12	Mar '13	Mar '14
Current Ratio	0.87	0.99	0.86	0.93	0.86	0.67	0.62	0.73	0.74	0.69	0.67
Quick Ratio	0.20	0.20	0.51	0.56	0.60	0.62	0.54	0.54	0.48	1.13	0.61
Debt Equity Ratio	--	46.72	1.93	1.63	2.35	4.03	5.38	8.91	102.49	--	--
Long Term Debt Equity Ratio	--	45.18	0.87	0.64	0.45	1.14	1.37	5.01	61.09	--	--

Debt Coverage Ratios	Mar '04	Mar '05	Mar '06	Mar '07	Mar '08	Mar '09	Mar '10	Mar '11	Mar '12	Mar '13	Mar '14

	Mar '04	Mar '05	Mar '06	Mar '07	Mar '08	Mar '09	Mar '10	Mar '11	Mar '12	Mar '13	Mar '14
Interest Cover	0.29	0.74	1.15	2.19	1.55	0.56	0.08	0.89	-0.10	-1.96	-2.45
Total Debt to Owners Fund	--	46.72	1.93	1.63	2.35	4.03	5.38	8.91	102.49	--	--
Financial Charges Coverage Ratio	0.48	1.59	1.83	2.66	1.92	0.93	0.62	1.64	0.59	-1.42	-1.79
Financial Charges Coverage Ratio Post Tax	0.75	1.79	2.79	2.46	1.76	0.84	0.65	1.27	0.59	-0.95	-1.79

Management Efficiency Ratios	Mar '04	Mar '05	Mar '06	Mar '07	Mar '08	Mar '09	Mar '10	Mar '11	Mar '12	Mar '13	Mar '14
Inventory Turnover Ratio	3.57	4.44	6.88	7.61	6.31	8.36	5.36	3.91	4.01	7.92	1.45
Debtors Turnover Ratio	--	60.18	33.43	25.26	21.89	16.89	8.66	9.44	11.99	13.76	5.65
Investments Turnover Ratio	3.98	4.82	8.17	7.61	6.31	8.36	5.36	3.91	4.01	7.92	1.45
Fixed Assets Turnover Ratio	11.81	22.01	23.56	10.43	11.00	6.96	3.78	3.12	3.41	2.68	0.69
Total Assets Turnover Ratio	29.38	21.89	10.39	10.19	6.94	4.38	3.24	3.08	3.6	2.73	0.84
Asset Turnover Ratio	5.57	13.67	8.63	8.09	6.73	4.01	2.41	3.11	3.40	2.71	0.77
Average Raw Material Holding	76.78	50.70	16.54	23.25	15.30	8.66	13.70	--	--	--	--
Average Finished Goods Held	12.46	14.15	17.60	17.88	22.21	25.29	26.77	--	--	--	--
Number of Days In Working Capital	-18.23	0.96	20.03	24.44	34.43	35.87	22.67	40.99	35.30	48.91	127.82

Profit & Loss Account Ratios	Mar '04	Mar '05	Mar '06	Mar '07	Mar '08	Mar '09	Mar '10	Mar '11	Mar '12	Mar '13	Mar '14
Material Cost Composition	84.47	89.48	82.45	83.19	87.54	73.71	72.53	73.58	72.11	62.14	83.59

Imported Composition of Raw Materials Consumed	49.67	44.28	48.48	16.9	22.44	14.62	16.31	14.83	17.56	13.35	12.89
Selling Distribution Cost Composition	1.38	2.20	2.67	2.84	2.46	3.03	3.32	--	--	--	--
Expenses as Composition of Total Sales	3.72	4.14	7.12	7.45	11.17	17.74	9.43	13.74	17.10	20.87	28.99

Cash Flow Indicator Ratios	Mar '04	Mar '05	Mar '06	Mar '07	Mar '08	Mar '09	Mar '10	Mar '11	Mar '12	Mar '13	Mar '14
Dividend Payout Ratio Net Profit	--	--	--	--	--	--	--	--	--	--	--
Dividend Payout Ratio Cash Profit	--	--	--	--	--	--	--	--	--	--	--
Earning Retention Ratio	--	--	100	100	100	--	--	--	--	--	--
Cash Earning Retention Ratio	--	100	100	100	100	--	--	100	--	--	--
Adjusted Cash Flow Times		16.39	8.62	3.88	8.62	--	--	36.11	--	--	--

Summary of theory application

Altman Z-Score

The Altman Z-Score was published in 1968 by Edward Altman, and measures a company's financial heatlth. He chose 66 publicly-traded manufacturing companies (half of which had declared bankruptcy, and half of which had not). Altman then examined several common financial ratios based on data retrieved from annual financial reports. After linearly combining these ratios, Altman arrived at an empirical equation (called the the Z-Score) that predicted the risk of corporate failure within two years with an accuracy of 72%. This equation was also tested against companies not in the initial sample. The equation predicted bankruptcy or non-bankruptcy to within a high degree of accuracy.

Altman later published modification called the Z1-Score, which can be applied to privately-held manufacturing companies, and Z2-score for non-manufacturing companies. The case relates to Z1 score. The value of the Z-Score indicates the health of a company, with a higher value being better. The equations use the following financial information.

- X_1 = Working Capital / Total Assets (measures liquidity)
- X_2 = Retained Assets / Total Assets
- X_3 = Earnings Before Tax and Interest / Total Assets (measures how effectively the company uses its assets to get return)

- X_4 = Market Value of Equity / Total Liabilities (measures the market's view of the company's health)
- X_{4A} = Book Value / Total Liabilties
- X_5 = Sales / Total Assets (indicated asset turnover)

The Z-score is then a linear combination of these ratios as follows

- $Z = 1.2 X_1 + 1.4 X_2 + 3.3 X_3 + 0.6 X_{4 + 1.0 X5}$
- $Z_1 = 0.717 X_1 + 0.847 X_2 + 3.107 X_3 + 0.42 X_{4A + 0.998 X5}$
- $Z_2 = 6.56 X_1 + 3.26 X_2 + 6.72 X_3 + 1.05 X_{4A}$

The latter two equations are often referred to as Altman model A (for private manufacturing firms) and model B (for general firms). The decision rule is as follows:

Bands for the Z - Score	Z	Z_1	Z_2
Financially sound if greater than	2.99	2.90	2.60
Caution required if between	2.77 – 2.99		
Likely to go bankrupt within 2 years if between	1.80 – 2.70		
Likelihood of bankruptcy is high if below	1.88	1.23	1.10
Average for non-bankrupt companies	5.02	4.14	7.0
Average for bankrupt companies	-0.29	0.15	4.06

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