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Austral Coke & Projects Limited: Detecting Earnings Manipulation

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Austral Coke & Projects Limited: Detecting Earnings Manipulation

By Rachappa Shette and Sudershan Kuntluru

Austral Coke and Projects Limited (ACP Ltd):

This company was incorporated as NRE Stocknet Limited in April 1994. Later, it was renamed as Net Interactive Limited in June 1998 and again it is renamed as Austral Cokes and Projects Limited (ACP Ltd) in September 2005. Currently, ACP Ltd is an Indian listed company on NSE and BSE after a successful fund raising of Rs 142.296 crores through IPO during Sept 2008.

Manufacture of LAM coke and refractory trading of textile are the core activities of this company in addition to leasing construction and earthmoving machines to large and medium companies involved in construction of buildings, airports, and residential buildings. Financial Statements of ACP Ltd. Are presented in Exhibit-1. The sales revenue of the company is 441.49 crores in 2008-09 as compared to 229.66 crores in previous financial year. The net-profit is Rs 45.25 in 2008-09 as compared to Rs 36.46 crores in the previous financial year.

During the period of such an impressive financial performance in terms of growth in sales and net income, financial position in terms of net worth, and successful fund raising through IPO, the company's board was contemplating of raising additional equity funds of Rs 960.22 crores through private placement with the financial institutions.

There is also bad news about this company during this impressive period of the financial health of the company. According to a popular daily print newspaper on 25th Jan 2010¹, Government has requested Serious Fraud Investigation Office (SFIO) to probe the alleged financial irregularities in this company. The SFIO need to submit the investigation report within six months. As per the news, there are seven designated officers for this investigation in six-month period.

Mr. Ajay Kumar Dubey, assuming as one of the seven designated officers of SFIO, attended a management development program on financial statements analysis which included learnings on Beneish Earnings Manipulation Score to assess the possibility of financial statement frauds. He would like to apply Messod D. Beneish earnings manipulation score (M-Score) to assess the possibility of earnings manipulation in the audited financial statements reported during the financial year 2008-09 and identify possible accounting scheme(s) used for such earnings manipulation.

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¹ https://economictimes.indiatimes.com/industry/indl-goods/svs/metals-mining/govt-set-to-probe-irregularities-at-austral-coke/articleshow/5496217.cms?from=mdr (accessed on 10th March 2023).

Beneish Earnings Manipulation Score (M-Score)²:

According to Beneish, M-Score is interpreted as below.

Table 1: Interpretation of M-Score

M-Score	Interpretation
< -2.00	Not-manipulator
-2.00 to -1.78	Possible-Manipulator
> -1.78	Likely-Manipulator

Table 2: Variables Used

	Variable	Description	Rationale
1	DSR	$(R_t / S_t) / (R_{t-1} / S_{t-1})$ Where R is receivables and S is Sales	Measures distortion in sundry receivables due to abnormal credit sales
2	GMI	GM _{t-1} /GM _t Where GM is gross margin	Measures pressure on the company due to deteriorating gross margins
3	AQI		Captures distortion in total assets (TA) due to excessive investments in assets other than Property, Plant & Equipment (PPE) and Current Assets (CA).
4	SGI	Sales _t / Sales _{t-1}	Captures pressure on the company due to high sales growth
5	DEPI	DR_{t-1} / DR_t Where DR is deprecation rate	Captures distortion in financial statements due to lower rate of depreciation (DR)
6	SGAI	$(SGA_t/Sales_t)/(SGA_{t-1}/Sales_{t-1})$	Captures distortion in financial statements due to higher selling, general and administrative (SGA) expenses
7	Accruals	$\begin{array}{l} (Net\ Income-Net\ CFO)_{t}/TA_t\\ Where\ CFO\ is\ cash\ flows\ from\ operations\ and\ TA\\ is\ total\ assets \end{array}$	Captures distortion in financial statements due to non-cash profit
8	LEVI	Leverage _t / Leveraget _{t-1} , where Leverage non- current liabilities divided by total assets	Captures pressure on the company due to higher debts

According to Beneish Model, the following probit model is used to estimate the probability of earnings manipulation score.

 $\begin{aligned} \text{M-Score} &= -4.84 + 0.920(\text{DSR}) + 0.528 \text{ (GMI)} + 0.404(\text{AQI}) + 0.892(\text{SGI}) + 0.115(\text{DEPI}) - \\ 0.172(\text{SGAI}) + 4.679 \text{ (Accruals)} - 0.327 \text{ (LEVI)}. \end{aligned}$

Alternatively, the online link³ could be used to compute M-Score of earnings manipulation of Beneish.

Table 3: Mean and Medians of variables of manipulators and non-manipulators.

² Beneish, M. D., Lee, C. M., & Nichols, D. C. (2013). Earnings manipulation and expected returns. *Financial Analysts Journal*, *69*(2), 57-82.

³ https://apps.kelley.iu.edu/Beneish/MScore/MScoreInput

Variables	Manipul	Manipulators		Controls (Non-	
		_		Manipulators)	
	Mean	Median	Mean	Median	
Days in receivables	1.412	1.219	1.030	0.995	
Gross-Margin	1.159	1.028	1.017	1.001	
Asset-quality	1.228	1.000	1.031	1.000	
Sales-growth	1.581	1.341	1.133	1.095	
Depreindex	1.072	0.977	1.007	0.972	
SGA index	1.107	1.028	1.085	0.990	
Leverage index	1.124	1.035	1.033	1.000	
Accruals index	0.049	0.026	0.015	0.012	

Source: Beneish et al (2013)⁴

Questions:

- 1. Mr. Ajay is required to compute Beneish Earnings Manipulation Score (M-Score) of Austral Coke and Projects Limited (ACP Ltd) using eight variable model from the financial statements given in Exhibit 1.
- 2. What kind of accounting scheme (s) could have been used in ACP Ltd to manipulate earnings?
- 3. Do ratios support the possible accounting manipulation scheme identified in above question 2? If so, what are such ratios?
- 4. Identify any other qualitative or quantitative red flag of earnings manipulation in financial statements of ACP Ltd.

References:

Beneish, M. D., Lee, C. M., & Nichols, D. C. (2013). Earnings manipulation and expected returns. *Financial Analysts Journal*, 69(2), 57-82.

Austral Coke and Projects Ltd. (2009). Annual Report of Austral Coke and Projects Limited.

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⁴ Beneish, M. D., Lee, C. M., & Nichols, D. C. (2013). Earnings manipulation and expected returns. *Financial Analysts Journal*, 69(2), 57-82.

Exhibit-1: Financial Statements of Austral Coke and Projects Limited (ACP Ltd)

DALANCE CHEET ACAT 21 02 2000				
BALANCE SHEET AS AT 31.03.2009				
Particulars	Schedule			
		31.03.2009 Rs	31.03.2008 Rs	
SOURCES OF FUNDS (LIABILITIES AND EQUITY)				
SHAREHOLDERS FUND: (EQUITY)				
Share Capital	1	29,02,96,040	19,02,96,040	
Reserves and Surplus (other equity)	2	3,93,35,47,731	1,65,49,71,891	
Deferred Tax Liability		34,73,63,860	18,52,75,661	
LOAN FUNDS (NON- CURRENT LIABILITY)				
Secured Loans	3	1,02,41,40,319	90,74,47,118	
Unsecured Loans		2,60,00,000	71,79,45,300	
CURRENT LIABILITIES AND PROVISIONS	10	3,20,30,78,669	83,07,24,851	
TOTAL		8,82,44,26,619	4,48,66,60,861	
APPLICATION OF FUNDS (ASSETS)				
FIXED ASSETS (NON-				
CURRENT ASSETS)	4	2,74,60,10,148	2,39,39,50,856	
INVESTMENTS	5	76,15,58,680	1,39,45,229	
CURRENT ASSETS, LOANS and ADVANCES				
Sundry Debtors	6	1,51,56,92,791	89,04,24,468	
Inventories	7	79,27,96,701	59,06,43,613	
Cash/Bank Balances	8	46,00,91,442	34,00,34,599	
Loans and Advances	9	2,45,21,97,442	24,44,89,339	
		5,22,07,78,376	2,06,55,92,019	
Miscellaneous Expenditure	11	9,60,79,414	1,31,72,757	
TOTAL		8,82,44,26,618	4,48,66,60,861	

Source: Annual Report of the company

PROFIT AND LOSS ACCOUNT FOR THE YEAR ENDED 31.03.2009

Particulars	Schedule	31.03.2009(Rs)	31.03.2008(Rs)
INCOME		4 41 40 27 025	2 20 66 50 765
Sales	10	4,41,49,27,935	2,29,66,59,765
Other income	12	3,94,44,082	6,42,29,733
Increase/(Decrease) in		20,27,76,698	42,00,31,220
Stocks (Inventory)		20,27,70,098	42,00,31,220
TOTAL		4,65,71,48,715	2,78,09,20,718
EXPENDITURE			
EXPENDITURE		2 10 40 90 076	1 20 70 04 207
Purchase E	12	3,10,49,89,976	1,28,78,94,307
Manufacturing Expenses	13	15,86,16,267	19,38,61,610
Vehicle Hire Expense		_	41,25,69,242
Selling, General and	1.4	5 00 20 125	5 16 42 250
Administrative expenses	14	5,90,28,135	5,16,42,259
Financial Expenses	15	30,06,53,249	8,27,97,811
Preliminary Exp. w/off		8,75,033	8,75,033
TOTAL		3,62,41,62,660	2,02,96,40,262
Profit before Depreciation		1,03,29,86,055	75,12,80,456
Depreciation Depreciation	4	33,94,70,321	18,29,29,274
Profit before Taxation	·	69,35,15,734	56,83,51,182
Provision for taxation		7,85,75,333	6,43,94,189
Deferred Tax Liabilities		16,20,88,200	13,90,64,991
Fringe Benefit Tax		3,13,178	2,35,349
Profit after Taxation and			
Depreciation 1.P. 1. f. 1.		45,25,39,023	36,46,56,653

Source: Annual Report of the company

Particulars	31.03.2009 (Rs)	31.03.2008 (Rs)
A. CASH FROM OPERATING ACTIVITIES		
Net profit before extra-ordinary items and Tax	69,35,15,735	56,83,51,182
Adjustment for:	0,,55,15,755	20,03,21,101
Depreciation	33,94,70,320	18,29,29,27
Preliminary expenses written off	8,75,033	8,75,03
Interest debited to Profit and Loss account	11,06,98,858	6,11,59,26
Other Non-Operating (incomes) / Expenses	(24,60,727)	(2,47,86,459
Interest Credit to Profit and Loss account	(3,69,83,355)	(3,94,43,274
2000 0000 00 11000 000 2000 0000	(0,00,000,000)	(0,5 1, 10,27
Operating Profit Before Working Capital Changes	1,10,51,15,864	74,90,85,01
Adjustment for:		
(Increase)/Decrease in Trade and other Receivables	(62,52,68,323)	(38,22,69,458
(Increase)/Decrease in Inventories	(20,21,53,088)	(42,00,31,220
(Increase)/Decrease in other Current assets	(2,19,30,42,736)	1,24,26,11
Increase/(Decrease) Current Liabilities and Provisions	2,38,01,94,897	25,50,35,16
Cash Generated from Other Operations	46,48,46,614	21,42,45,61
LESS: Income Tax Paid	8,13,95,782	3,57,97,57
Cash flow Before Extraordinary Items	38,34,50,832	17,84,48,04
Extraordinary Items	19,27,177	2,35,76,95
Net Cash From Operating Activities A	38,53,78,009	20,20,24,99
B. CASH FLOW FROM INVESTMENT ACTIVITIES		
Purchase of Fixed asset (Non-current assets)	(69,15,29,609)	(1,78,13,32,263
Investment Purchased	(74,76,15,680)	(55,02,229
Investment Sold	2,229	51,96,93
Preliminary Expenses Incurred	(8,37,81,690)	(96,72,619
Net Cash Used in Investing activities B	(1,52,29,24,750)	(1,79,13,10,174
C. CASH FROM FINANCING ACTIVITY		
Proceeds From Issue of Equity Shares	10,00,00,000	2,42,61,10
Security Premium	1,86,00,00,000	54,77,71,13
Proceeds from Borrowing	(57,52,52,099)	1,05,72,85,33
Interest/Dividend received	3,75,16,905	4,06,52,77
Interest Paid	(11,06,98,858)	(6,11,59,260
Dividend Paid and tax thereon	(5,39,62,363)	(48,56,522
Net Cash Used in Financing Activities C	1,25,76,03,585	1,60,39,54,55
Net Increase in Cash and Cash Equivalents (A)+(B)+(C)	12,00,56,844	1,46,69,38
Cash and Cash Equivalents (Opening Balance)	34,00,34,599	32,53,65,21
Cash and Cash Equivalents (Opening Balance)	46,00,91,443	34,00,34,59

Source: Annual Report of the company

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