

APPENDIX 5

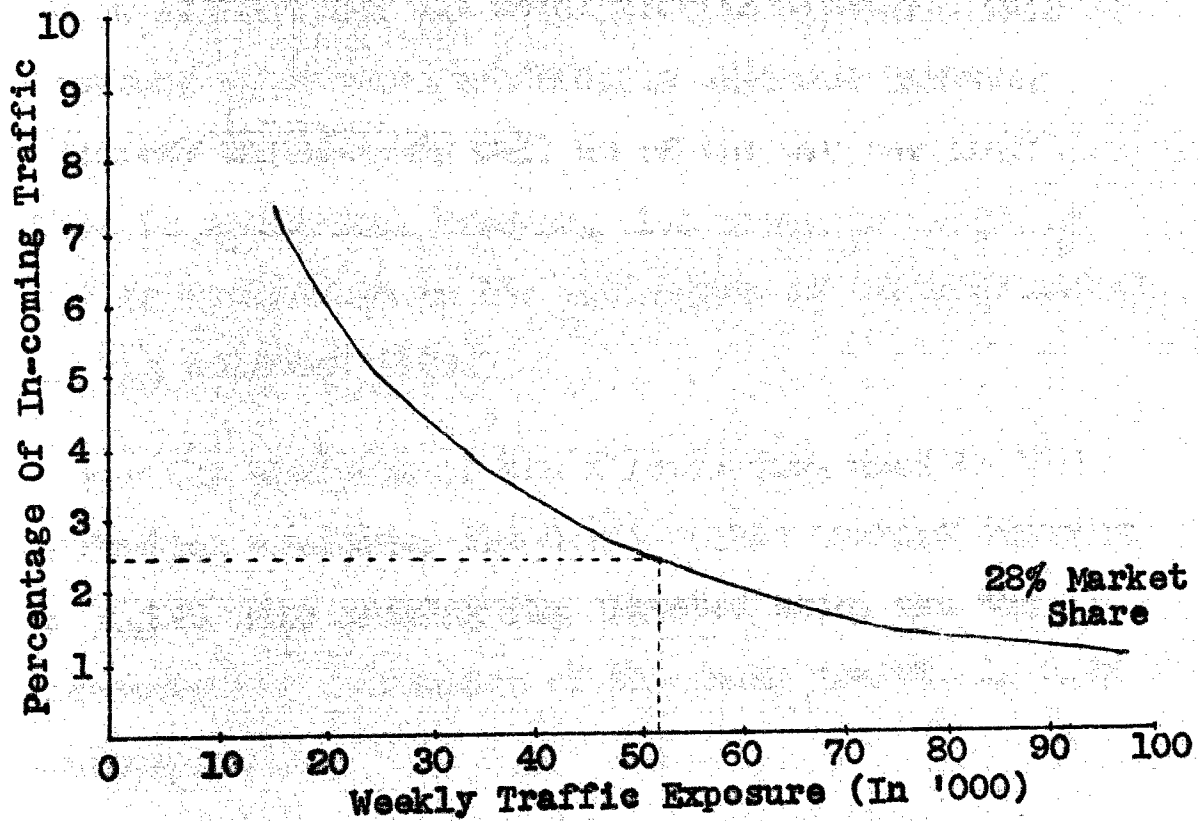
THE RELATIONSHIP BETWEEN TRAFFIC EXPOSURE AND THE PERCENTAGE OF TRAFFIC COMING INTO A STATION

The following result is obtained through a survey conducted recently by the Marketing Analysis Department of Esso Standard Malaya Limited. It purports to show the relationship between the total traffic exposed to a station and the percentage out of this traffic exposure which enters the station.

The survey on traffic exposure took a week to complete, and the sampling hours were from 8.00 a.m. to 6.00 p.m. each day, that is, a total of 10 hours per day.

In the graph, the horizontal axis represents the total traffic exposed to station per week. This is derived by summing up the daily total traffic exposures counted during the week-long survey. In the count, all motor vehicles passing the station, except scooters and motor-bikes, are counted. Also, a vehicle is counted as many times as it passes the station.

The vertical axis represents the percentage of the total traffic exposure which enters the station.



This graph is applicable to a marketing area where Esso's market share is 28%.^{*} This graph is used since in our illustration, Esso enjoys a 28% market share, or 21,000 gallons out of 75,000 gallons (See Site Analysis Data Form in Chapter V).

The graph indicates that there exists an inverse relationship between the percentage of traffic coming

^{*} For other markets where Esso's market shares are known, graphs which correspond to the various market shares are used in order to find the percentage of in-coming traffic out of the total traffic exposure at a particular station or site. Thus, to find the particular percentage of in-coming traffic out of the total traffic exposure in a market where Esso has 30% share, the 30% Market Share graph will be used.

into a station and the total traffic exposure. This is necessary so because the traffic exposure includes transient traffic, as well as of the way the traffic count is conducted. However, this graph is useful as well as applicable in the estimation of sales potential for the selected site.

For the analysis of the illustration used in this graduation exercise, the total weekly traffic exposure is 51,849 cars passing the selected site, and the corresponding percentage of in-coming traffic is 2.3% approximately.

RECALCULATION OF THE DISCOUNTED CASH FLOW ANALYSIS WITH DEPRECIATION AS A FLOW-CASH EXPENSE

APPENDIX 6

Year	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		
Investment *	35,816																						
Growth Rate	97	100	113	119	122	124	126	126	126	126	126	123	122	121	120	119	118	117	116	116	116	116	
Annual Volume Barrel/Year	5979	6164	6965	7335	7520	7643	7767	7767	7767	7705	7643	7582	7520	7458	7397	7335	7274	7212	7150	7150	7150	7000	
Average Gross Profit Margin After Average Marketing Exp.		\$2.4																					
Gross Profit (Before Depreciation)*		14.3	14.8	16.7	17.6	18.0	18.4	18.6	18.6	18.5	18.4	18.2	18.0	17.8	17.8	17.6	17.4	17.3	17.2	17.2	17.2	17.2	
Rent Received*		1.4																					
Net Profit (Before Depreciation* and tax)		15.7	16.2	18.1	19.0	19.4	19.8	20.0	20.0	19.9	19.8	19.6	19.4	19.2	19.2	19.0	18.8	18.7	18.6	18.6	18.6	18.6	
Company Tax at 40% (after depreciation)*		5.8	6.0	6.3	7.0	7.2	7.3	7.4	7.4	7.4	7.3	7.2	7.2	7.1	7.1	7.0	7.0	6.9	6.8	6.8	6.8	6.8	
Residual Value		WIL																					
Cash Flow		9.9	10.2	11.8	12.0	12.2	12.5	12.6	12.6	12.6	12.5	12.4	12.2	12.1	12.1	12.0	11.8	11.8	11.8	11.8	11.8	11.8	11.8

*Figures are in \$ '000.

**The assumptions made are
 (i) net realizable value of equipment and improvements is negligible.
 (ii) no appreciation of land value.
 (iii) no modernization is made within the period of twenty years.

RECALCULATION OF THE DISCOUNTED RATE OF RETURN

Year	Cash Inflow	30% Discount Factor	Present Value	35% Discount Factor	Present Value
0	-	-	-	-	-
1	9.9	0.769	7.61	0.741	7.34
2	10.2	0.592	6.04	0.549	5.60
3	11.8	0.455	5.37	0.406	4.79
4	12.0	0.350	4.20	0.301	3.61
5	12.2	0.269	3.28	0.223	2.72
6	12.5	0.207	2.59	0.165	2.06
7	12.6	0.159	2.00	0.122	1.54
8	12.6	0.123	1.55	0.091	1.15
9	12.5	0.094	1.18	0.067	0.84
10	12.5	0.073	0.91	0.050	0.63
11	12.4	0.056	0.69	0.037	0.46
12	12.2	0.043	0.52	0.027	0.33
13	12.1	0.033	0.40	0.020	0.24
14	12.1	0.025	0.30	0.015	0.18
15	12.0	0.020	0.24	0.011	0.13
16	11.8	0.015	0.18	0.008	0.09
17	11.8	0.012	0.14	0.006	0.07
18	11.8	0.009	0.11	0.005	0.06
19	11.8	0.007	0.08	0.003	0.04
20	31.6	0.005	0.16	0.002	0.06

Total Present Value = \$37.55

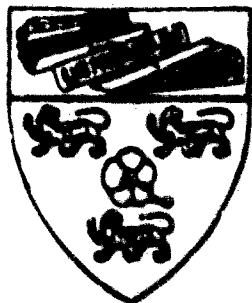
= \$31.94

Present Value of Investment = \$35.816

By linear interpolation the discounted rate of return = 31.55%

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