

Strategic Marketing -Contemporary Issues
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Lecture - 8

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EFFECT OF OPERATING LEVERAGE ON PROFIT						
	Base Case		10% Increase in Sales		10% Decrease in Sales	
	High Fixed Cost option	High Variable Cost option	High Fixed Cost option	High Variable Cost option	High Fixed Cost option	High Variable Cost option
Sales	₹200,000	₹200,000	₹220,000	₹220,000	₹180,000	₹180,000
Variable Costs	40,000	₹160,000	₹44,000	₹176,000	₹36,000	₹144,000
Fixed Costs	₹160,000	₹40,000	₹160,000	₹40,000	₹160,000	₹40,000
Profit	₹0	₹0	₹16,000	₹4,000	₹16,000	₹8,000

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So, we start at the presentation of financials for a strategic marketing plan, within that as we saw the last section relates to contingency plan. And this was the last slide that I used in that session which deals with the impact of high leverage option versus low leverage option.

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OPERATING LEVERAGE

- **Operating leverage refers to the extent to which Fixed costs and variable costs are used in the Production and marketing of products and services**

High Operating Leverage	High total fixed costs relative to total variable costs
Low Operating Leverage	Low total fixed costs relative to total variable costs

- **The higher the operating leverage, the faster total Profits will rise or fall once sales volume rises or falls below break-even volume**

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And if you remember high leverage meant, a high total fixed cost and low leverage meant that a low fixed cost with respect to low total fixed costs with respect to low total variable cost. And we saw that in case of the highly leveraged plan; that means, high fixed cost which is obvious because high fixed cost means your break-even point has climbed upwards, and therefore the same ten percent decline in sales can double your loss, and the same ten percent increase in sales revenue can quadruple your profit. So, this plan therefore becomes highly sensitive to this revenue, revenue growth or revenue fall and when you are getting into this option of taking new products to the existing market, or new product existing products to a new market.

In both cases, you have options, which is relating to like we saw in case of woodland in therefore, into China which is taking their existing products into a new market. They could set up a manufacturing facility in China sourcing local material locally manufacturing; obviously, then their variable cost per unit comes down, but because they have to set up a new plant, because they have to have people and other associated financial costs with respect to additional working capital and so on. They are variable costs will be low, fixed cost will be high.

If they have a local manufacturing versus, if they actually resource the material from their Indian plant then there will be additional freight and all the additional cost relating to this longer supply chain and so on. And therefore, their variable costs will go up, but

the fixed cost will be practically nothing, because they are leveraging their existing plant and machinery in India.

In the same way, in the woodland case, we were talking about they are interesting introducing new products - skin care products or personal care products for adventure enthusiasts for trekking, hiking, enthusiasts. That means, before besides offering to them footwear, and you can also offer to them maybe tents, or skin care products or rug sacks or you know associated many other products. Again you can choose to either manufacture these products in which case it is a high fixed cost oriented strategy, or you may decide to outsource them, procure them from other vendors and brand label it with your own brand, have maybe captive suppliers or maybe a wide range of suppliers. In all of these cases, you will have a higher variable cost because you are buying from somebody. So, you can only add in some ways some trading margin to it, but your fixed cost will be nothing right.

And again therefore, in these cases, the sales volume will be critical understanding the sales volume, it is the downside will rapidly erode your profit margin profit volume and upside will rapidly raise your profit outcome from your the plan. In fact, it will be interesting for you to note here that there are some major players in this market, say for example, Nike who seem to have no manufacturing facility of their own at all. And possibly because they develop this whole strategy focused mainly on marketing they wanted to keep it on a low leverage, so that when they come into a new market the growth of these new range of products maybe sensitive too many uncertainties. So therefore, it is better to remain at a low leverage level, and so that wrong forecast or declining sales corresponding to the forecast does not affect your overall profit, so strongly, so acutely.

We will now take up a couple of other concepts again relating to the financial analysis contained within a strategic plan which goes beyond normal statements of revenues, costs and so on.

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DISCOUNTED CASH FLOW

► **Discounted cash flows** are future cash flows Expressed in terms of their present value: **500 Rupees** received next year is worth less than that received today because its future value is affected by inflation and uncertainties.

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So, one of them its concept of discounted cash flow, which I am sure again you know from your introductory courses that, 500 rupees that you get today is much far more valuable than the 500 rupees that you will get six months later or one year later. And that is because it is not only because of the inflation or the interest that you are losing on that 500 rupees, but it is also because of the many uncertainties always inherent in any future projection. So, it is always better.

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LIQUIDITY AND WORKING CAPITAL

Liquidity A firm's ability to meet short-term financial Obligations within the financial year

Working Capital = Current Assets - Current Liabilities

Current Assets Consists of cash, accounts receivable, Prepaid expenses, inventory, etc.

Current Liabilities Consists of short-term accounts payable, income taxes, etc.

Managers must be aware of the impact of marketing Actions on working capital

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And as we saw in the previous discussion on working capital, that obviously, if you are collecting your receivables today, it is far better than actually postponing those, because it will create a higher load on your working capital. It will mean increasing interest burden, because you have to borrow more money from the bank. And also there are, this whole concept of the discounts that you need to do assign to the cash flow that comes in later. Marketing has to be especially sensitive to this time value of money, and that is why you will see in marketing we often actually give cash discount for immediate payment. And we prefer to take credit card payment because that is money that is going to go into your bank account tomorrow, even though the banking system the credit card system might take away one percent or two percent from your earnings.

So, we preferred to take credit card payment as a seller as a marketer rather than postponing the receipt of the payment from the customer, and we are prepared to give that one percent two percent charge to the bank, because money in the bank today is far more valuable than the money that will come in tomorrow. On the presentation or discussion that we had a in the last session, I have received some questions which I will briefly clarify.

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APPLICATION OF DISCOUNTED CASH FLOW ANALYSIS WITH 15 PERCENT DISCOUNT FACTOR

Year	Discount Factor	Option A			Option B		
		Cash Flow	Cumulative Cash Flow	Discounted Cash Flow	Cash Flow	Cumulative Cash Flow	Discounted Cash Flow
0	1.000	₹105,000	₹105,000	₹105,000	₹105,000	₹105,000	₹105,000
1	0.870	₹25,000	₹130,000	₹21,750	₹50,000	₹155,000	₹43,500
2	0.756	₹35,000	₹165,000	₹26,460	₹0	₹155,000	₹41,580
3	0.658	₹50,000	₹215,000	₹32,900	₹60,000	₹125,000	₹39,480
4	0.572	₹70,000	₹285,000	₹40,040	₹65,000	₹125,000	₹37,180
5	0.497	₹90,000	₹375,000	₹44,730	₹70,000	₹195,000	₹34,790
Total				₹60,880			₹91,530

$\frac{1}{(1+0.15)^0} = 1 = 1.000$
 $\frac{1}{(1+0.15)^1} = 0.87$
 $\frac{1}{(1+0.15)^2} = 0.756$
 $\frac{1}{(1+0.15)^3} = 0.658$
 $\frac{1}{(1+0.15)^4} = 0.572$
 $\frac{1}{(1+0.15)^5} = 0.497$

>Which option has the larger cumulative cash? Why is this important?
 >Which option has the faster payback? Why is this important?
 >Which option has the greater discounted cash flow? Why is this important?

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First of all with respect to this important understanding of two marketing strategy options option A and option B with a discounted cash flow - with the discount rate of 15 percent. So, this how did we arrive at this 0.87 or 0.756. This is very simple, the formula is one

divided by 1 plus r. So, in the first instance, it is 1 divided by 1.15, because r is equal to 0.15 15 percent and therefore, this leads to something like 0.87. And similarly in the next one, it will be 1 divided by 1 plus r square and that will lead to 1 upon 1.15 square and that will lead to 0.756.

And again the question is that which option is better? The point is that in as you can see in case of B the pay back is faster, because in A we are still at minus 45000 in the second year. So, it is faster as we discussed it depends on your company's cash flow, cash reserves situation. If you are able to handle this then this might be even though it is option A leads to a longer payback, because we are becoming positive only in the third year, but; however, as you can see here the rate of growth in the fourth year, fifth year is much better than the rate of growth in option B.

So perhaps this is actually a newer product or a taking existing product to a new market. So, new initiatives, it takes a little time for it to take off; it does guzzle cash. So, it depends on your companies cash flow position, therefore what you will chose between option A and option B. Also in terms of the both options actually have positive net present value at the end of five year, here we have 60880 verses 91530. This could be 91.53 million or 60.88 million depends on how you are actually taking these other numbers.

The issue is therefore, both maybe a positive in terms of net present value, but these are the market dynamics that one has to look at and look at your company's current strategic priorities. And we will discuss just a in a little while, what are this strategic priorities and how we should actually fit these two different options within an overall strategic framework of the organization.

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CUSTOMER LIFETIME VALUE

Customer Lifetime Value (CLV) The present value of future cash flows from a customer relationship

The CLV calculation requires this information:

$$\text{₹M} = \text{Sales Revenue} - \left(\text{Variable Costs} + \text{Other Customer Acquisition Costs} \right)$$

Retention Rate = (r)

Interest Rate = (i)

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R is the retention rate i is the existing that is the interest rate and we have said margin is sales revenue minus the variable costs.

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CUSTOMER LIFETIME VALUE

The customer lifetime value (CLV) Formula is:

$$\text{Customer Lifetime Value (CLV)} = \text{₹M} \times \left[\frac{1}{1+i-r} \right]$$

Example: ₹M = ₹2,000; $i = 10\%$; and $r = 80\%$. CLV is:

$$\text{CLV} = ₹2,000 \times \left[\frac{1}{1.0 + 0.1 - 0.8} \right]$$

Handwritten calculations:

$$1 + 0.1 - 0.8 = 1 - 0.7 = 0.3$$

$$\frac{2000}{0.3} = 6666.67$$

Handwritten notes: $\frac{2000}{0.3} = 6666.67$, $\frac{2000}{0.3} = 6666.67$, $\frac{2000}{0.3} = 6666.67$

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Now, there are number of issues that come up, for example, this calculation I suppose you have all been able to do very well because this is 1 plus 0.1 minus 0.8. So, this is equal to 1 minus 0.7. So this equal to 0.3 and 2000 divided by 0.3 leads to this 6666.67. Now, the important point here to note is that even before that I think I would like to point out something very interesting. Is that suppose this figure now there are suppose this is

the as you know that this is the retention rate. What percentage of your customers you hope to retain after the period - the next strategic period; it could be one year two years three years.

Now if this goes down to 0.7, say for example, then what happens then this becomes 1 divided by 1 plus 0.1 minus 0.7 is 1 divided by minus 0.6 equal to 0.4. And this is very interesting that this 2000 divided by 0.4 is 5000. So, you see here that you are there is only a small reduction here, but the deduction in your customer lifetime value is 5000 divided by 6666.67 is that is equal to 0.75. So 25 percent reduction is happening in the customer lifetime value just for retention percentage going down from 80 percent to 70 percent. So, 10 percent reduction in retention rate can lead to 25 percent reduction in the customer lifetime value. In the same way, you can calculate that if this goes up that means if you are retention rate instead of 0.8 become 0.9 the growth will be very significant.

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CUSTOMER LIFETIME VALUE

**Example: ₹M = ₹2,000; i = 10%; r = 80%;
g (constant growth rate) = 6%. CLV is:**

$$\text{CLV} = ₹ 2,000 \times \left[\frac{1}{1.00 + 0.10 - 0.80 - 0.06} \right]$$

$$\text{CLV} = ₹ 8,333.33$$

**Marketing affects the customer margin (₹M),
The retention rate (r), and the growth rate (g)
But not the interest rate (i)**

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So, retention rate therefore, is very well correlated or rather very significantly correlated with the kind of customer lifetime value.

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CUSTOMER LIFETIME VALUE

Some firms modify the customer lifetime value (CLV) Formula to include the cost to acquire a customer (AC):

$$\text{Customer Lifetime Value (CLV)} = \left[\text{₹M} \times \left[\frac{1}{1+i-r} \right] \right] - \text{AC}$$

- ▶ This CLV calculation requires insight into a firm's Customer relationships
- ▶ The firm's customer database or industry norms are used to determine per-period margin (₹M) and retention rate (r)

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And how customer lifetime value will be an important consideration in your overall strategy formulation. How this part of the marketing strategy creates a significant asset or rather keep significant determinant for the corporate strategy, is what we will see just in a little while.