

## Introduction to the Definition of Marketing Profit

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## Marketing Profit

- Is the financial gain,  $Z$ , that is returned from a marketing investment,  $I$ ,
- The amount of financial gain,  $Z$ , that is generated from a marketing investment is determined by the size of the investment,  $I$ , and the rate at which profit is returned on that investment,  $MROI$
- Marketing Profit,  $Z = MROI \times \text{Investment}, I$

## In order to calculate the

- Various aspects of marketing profit such as the amount of marketing profit,  $Z$ , that will be earned from a marketing investment, you will be given the values of two constants, ' $a$ ' and ' $b$ ' that have been estimated by the firm's market research

## With the values of the constants

- ' $a$ ' and ' $b$ '
- You will be able to calculate
- 1) the amount of profit,  $Z$ , that is being earned from a particular size of investment,  $I$ , as Marketing Profit,  $Z = aI - bI^2$
- 2) the optimal size of the marketing investment,  $I^*$ , needed to maximize profits  
Optimal Investment,  $I^* = a/2b$

## With the values of ' $a$ ' and ' $b$ ' you will also calculate

- 3) The Average Rate at which profit is being returned on a marketing investment,  $I$   
Average Rate of Return,  $AROR = a - bI$
- 4) The Marginal Rate at which profit is being returned on a marketing investment,  $I$   
Marginal Rate of Return,  $MROR = a - 2(bI)$

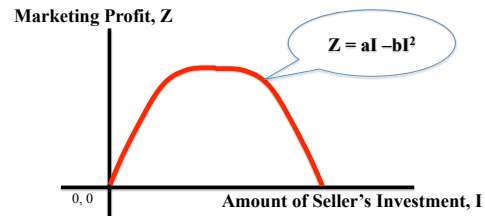
## There are many functions that describe

- The nature of the relationship between the amount of financial gain,  $Z$ , to be expected from a marketing investment,  $I$ .
- The traditional one is Marketing Profit Function,  $Z = (P-c)(kI^*) - I$
- Where accountants provided estimates of the constants, ' $P$ ' and ' $c$ '
- Market research provided estimates of the values for ' $k$ ' and ' $a$ '

### The simplest function to describe

- The nature of the relationship between the amount of financial gain,  $Z$ , to be expected from a marketing investment,  $I$ , is
- The quadratic equation  
Marketing Profit,  $Z = aI - bI^2$
- Where market research provided estimates of the values for ' $a$ ' and ' $b$ '

The quadratic equation which describes the relationship between the financial gain,  $Z$ , and a marketing Investment,  $I$



### Example #1

- Market research has provided the estimates for the constants in the marketing profit function  
Marketing Profit,  $Z = aI - bI^2$   
as ' $a$ ' = 0.61 and ' $b$ ' = 0.0002
- Your firm normally makes an investment in marketing of \$800 each week.
- How much profit do they normally get returned from the \$800 investment?
- Marketing Profit,  $Z = 0.61(I) - 0.0002(I^2)$
- Marketing Profit,  $Z = 0.61(800) - 0.0002(800^2)$
- Marketing Profit,  $Z = \$488 - \$128 = \$360$

### Example #2

- Market research has provided the estimates for the constants in the marketing profit function  
Marketing Profit,  $Z = aI - bI^2$   
as ' $a$ ' = 0.61 and ' $b$ ' = 0.0002
- You learned that the optimal level of marketing investment,  $I^*$ , is calculated as  
Optimal Investment,  $I^* = a/2b$
- What is the optimal level of marketing investment for the firm?  
Optimal Investment,  $I^* = 0.61/2(0.0002) = \$1,525$

### Example #3

- Market research has provided the estimates for the constants in the marketing profit function  
Marketing Profit,  $Z = aI - bI^2$   
as ' $a$ ' = 0.61 and ' $b$ ' = 0.0002
- You have convince the senior management to increase the size of the weekly investment to \$1,525
- How much profit should they expect to get from the investment?
- Marketing Profit,  $Z = 0.61(I) - 0.0002(I^2)$
- Marketing Profit,  $Z = 0.61(1,525) - 0.0002(1,525^2)$
- Marketing Profit,  $Z = \$930 - \$465 = \$465$
- A gain of \$105 in profit each week from the previous \$360

### Over the coming weeks

- You will learn to derive and estimate the various functions associated with marketing profit, their applications and the caveats in their use