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Magadh Mahila College

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Paper: Microeconomics (CC 07)
Topic: Williamson's model
Content By: Mona, Department of Economics

Topic : Williamson's Model of Managerial Discretion

The managerial theory of firm developed by Oliver E. Williamson states " that managers apply discretion (the freedom of power to make the decision by yourself) in making and implementing policies to maximize their own utility rather than trying for the maximisation of profit which ultimately maximise own utility subject to minimum profit. Profit works as to limit to the top manager's behaviour in the sense that the financial market and the shareholders requires a minimum profit to be paid out in the form of dividents; otherwise the job security security of Managers is put in danger. Hence, managers Look at their self-interest while making decision on price and selling quantity of output Manager's decision on price and output differs from the decision of profit maximizing firm. Utility maximization of manager guided by their own self interest is possible like in Baumol's sales maximization model, Only in a corporate type of business organisation with the separation of ownership and mana-gement functions. such organizational structure permits the managers of a firm to pursue their own self-interest, subject only to their ability to keep effective control over the firm. In particular managers are fairly certain of keeping hold of their powers.

(i). If profits at any time are at an acceptable level.

(ii). If the firm shows a resonable rate of growth over time, and

(iii). If sufficient dividents are paid to keep the shareholders happy.

Williamson's Model suggests that manager's self-interest focuses on the achievement of goals in four particular areas; namely;

(i) High Salaries
(ii) Staff under their Control
(iii) Discretionary investment Expenditure
(iv) Fringe benefits (i.e., additional benefit provided to an employee, for ex – a company car or health insurance.)

→ This Model depends on some assumptions:

(i). Weakly competitive environment.
(ii). A divorce of ownership from control of firm (manager is free to perform any action)
(iii). A Capital market imposes minimum profit constraint (manager's work for minimum profit imposed by a capital market.)

According to Williamson, managers want "Utility" which is the same things as happiness or satisfaction.

The managerial Utility function includes such variables as salaries, security, power, status, prestige and professional excellence of these variables, only the first variable "salaries" is measurable. The others are non-pecuniary.

Therefore; in order to make them operational they must be expressed in terms of other variables with which they are related and which are measurable.

Managerial Utility function ;

$$U = f_1(S, M, I_D)$$

where, S = Staff Expenditure including managerial Salaries
M = Managerial emolument
I_D = Discretionary investment

Note :

* M → Additions to manager's salaries and benefits in form of the "Perk".

* I_D → Discretionary profit which exceed the minimum required to satisfy the share-holder available as a source of finance for "Pet project".

→ Different definitional and behavioral relations are in Williamson's model. They are introduced below :

- Demand of the firm : It is assumed that the firm has a known downward sloping demand curve defined by the function.

$$X = f_2(P, S, E)$$

Where;

X = Output
P = price of the commodity
E = The condition of the environment or a demand-shift parameter reflecting autonomous changes in demand.

Again; $P = f_3(x, S, E)$

where; x = Output

$$\boxed{\frac{\partial P}{\partial x} < 0 \qquad \frac{\partial P}{\partial S} > 0 \qquad \frac{\partial P}{\partial E} > 0}$$

$f_2(P, S, E)$ and $f_3(Q, S, E)$ are the market demand equations for the firms product. An increase in staff expenditure (S) is supposed to cause an upward shift to the demand curve and thus allow the charging of a higher price. The same period holds for any other change in the environment which shifts upwards the demand curve of the firm.

- Production Cost : The total cost of production (C) is assumed to be an increasing function ~~of~~ of output.

So;

$$C = f_4(X)$$

$$TC \text{ (Total Cost)} = VC \text{ (variable cost)} + FC \text{ (fixed cost)}$$

$$\boxed{\frac{\partial C}{\partial x} > 0 \qquad \frac{\partial C}{\partial x} = 0}$$

Actual Profit (π) : The actual profit is ~~p~~ defined as revenue from sales (R) minus the production costs (C) and minus staff expenditure (S) or actual profit are the difference between total revenue earned less the production costs and staff expenditure (S).

Symbolically; $\boxed{\pi = R - C - S}$

$$\pi = f_5(R, C, S)$$

where, R = Revenue
C = Cost
S = Staff Expenditure

$$\boxed{\frac{\partial \pi}{\partial R} > 0, \quad \frac{\partial \pi}{\partial C} < 0, \quad \frac{\partial \pi}{\partial S} < 0}$$

- Reported Profit (π_R) : This is the profit reported to the tax authorities. It is difference between actual profits and supplementary or non-essential managerial expenditure as represented by management slack. It is the actual minus the managerial emoluments (M) which are tax de-ductible.

$$\boxed{\pi_R = \pi - M}$$

or

$$\boxed{\pi_R = R - C - S - M}$$

$$\pi_R = f_6(\pi, M)$$

$$\boxed{\frac{\partial \pi_R}{\partial \pi} > 0 \quad \text{and} \quad \frac{\partial \pi_R}{\partial M} < 0}$$

- Minimum Profit (π_0) : Minimum profit is the amount of profit (after tax) which is required to be paid as a acceptable divided to satisfy onwer-shareholders of the firm. If the shareholders do not get resonable dividents they may sell their share and thereby expose the firm to the risk of being taken over by others;

or alternaterely they will vote for the dismissal of the top management. Both of these actions by the shareholders will reduce the job security of the top managerial term. Hence, managers must earn some minimum profit for the shareholder in the form of dividents to keep the shareholders satisfied to as to ensure manager's job security.

$$\pi_O = f_7(\pi_R, T)$$

where,

T = tax

$$\boxed{\pi_O = \pi_R - T}$$

OR,

$$\boxed{\pi_R \geq \pi_O + T}$$

$$\boxed{T = \check{T} + t.\pi_R}$$

Where;

$\check{T}$ = a Lump-sum tax

t = Marginal tax rate or Limit profit tax

- Discretionary Investment (I_D): Amount left from the reported profit (π_R) after substracting the minimum profit (π_O) and the tax. i.e.,

$$\boxed{I_D = \pi_R - \pi_O - T}$$

- Discretionary ~~&~~ Profit (π_D): It is also the left amount from ~~repo~~ ~~fr~~ actual profit (π) after substracting the ~~minimimum~~ minimum profit (π_O) and the tax. therefore;

$$\boxed{\pi_D = \pi - \pi_0 - T}$$

- Flow Chart :

$\boxed{70,000}$ − $\boxed{20,000}$ + $\boxed{10,000}$

S/ Revenue — C — Staff expenditure

= $\boxed{40,000}$

Actual Profit (π)

$\boxed{40,000}$ − $\boxed{10000}$

Actual Profit (π) — Emoluments (M)

= $\boxed{30,000}$ − $\boxed{3000}$

Reported Profit (π_R) — Tax

= $\boxed{27,000}$

Minimum profit (π_0)

Now, discretionary investment i.e.,

$$I_D = \pi_R - \pi_0 - T$$

$$= 30,000 - 27,000 - 3,000$$

$$\therefore I_D = 0$$

and,

discretionary Profit ;

$$\pi_D = \pi - \pi_0 - T$$

$$= 40,000 - 27,000 - 300[0]$$

$$\therefore \pi_D = 10,000$$

thus, $\pi_D = M$

It means; discretionary profit will be equal to emolument (M).