Module 6 – Internal Analysis of the Company

**6.1 – Opportunity Cost**

The decision to follow a certain course of action is simultaneously a decision not to pursue alternatives. The best alternative forgone is the opportunity cost of the action chosen.

This idea can be utilized with two questions:

Have we identified all relevant options?

How do the options compare with each other?

**6.2 – Fixed Costs, Variable Costs and Sunk Costs**

Remember:

Sunk costs are not relevant.

“Additional” output has no impact or overhead. Don’t allocate fixed cost to them.

Posing questions about whether costs are fixed, variable or sunk can suggest where accounting cost data may be misleading. Sunk costs are a particularly important strategic consideration for barriers to entry. If the costs of entry are recoverable then they are not sunk as far as the strategic move is concerned. The fact that a cost was incurred in the past does not necessarily make it sunk.

**6.3 – Marginal Analysis**

Only relevant costs should be taken into account in making pricing and output decisions. Marginal Cost is the change in costs as output varies.

Marginal Cost = Outlayq+1 – Outlayq

Where <q> is the level of output.

As marginal cost excludes fixed cost, it can be significantly lower than average cost. Thus when making output and pricing decisions the marginal cost can be used as a guide to the minimum acceptable price. Carry on producing and selling so long as the marginal cost is less than price.

For maximizing profit, carry on producing and selling until marginal cost and price are equal. Beyond this point marginal cost will be greater than price and a loss will be made on each unit.

The rule is more difficult to apply when it is necessary to reduce price in order to increase sales; in this case marginal cost is not compared with price but with the additional revenue generated by increased sales, taking account of the reduction in price. The additional amount gained from the sale of each additional unit is known as marginal revenue; when it is not necessary to reduce the price in order to sell additional units then marginal revenue and price are equal.

Does the last dollar spent generate at least a dollar of revenue? If not, there is little point in spending it.

The marginal cost concept should be applied to decision making. Example: what is the value of the additional output associated with the hiring of one more worker, or the installation of one more assembly line?

Applications:

1. ‘one-off’ situations when price has to be negotiated. Do not use average cost for pricing, but marginal cost.
2. Sale of inventory at the end of the life cycle of a product. How much shall we charge? Wrong answers are: as high a price as the market will bear; a price which will clear all of the inventory; a price which will cover the costs of production. Right answer: charge the price that, depending on the demand curve, will maximize revenues, regardless of the quantity. This is the point where marginal revenue is zero.

**6.4 – Diminishing Marginal Products**

Additional resources my not create the expected additional output. There is a point, for example, that one worker more will not generate any additional output. Therefore, we keep hiring till the value of additional output is equal to the wage.

Other points: it becomes increasingly difficult to wrest each additional percentage point of market share; in this sense the marginal product of marketing expenditure diminishes.

This is also important at corporate level, where SBUs are competing for scarce resources. The guiding corporate principle is to identify the value of the marginal product of the SBUs, and allocate resources to each up to the point at which the values of the marginal products are equal.

**6.5 – Profit Maximization**

Increase output till marginal cost is equal price. If the company is a price taker (competitive market), profit maximizing output is that where marginal costs equals price. When, however, company has some power over price, we have to look at the marginal revenue. In this case we sell till marginal revenue equal marginal cost, and then look at the demand curve to see the quantity that must be sold. The cost of producing the last unit is equal the additional revenue we will get.

Questions:

What are the additional expected costs?

What are the additional expected revenues?

**6.6 – Economies of Scale and the Experience Curve**

Economies of scale is concerned with what the cost of production would be at different scales of operation. If the productive capacity of a company were doubled, economies of scale would exist if the average cost fell.

Experience curve relates to the reduction in average costs resulting from the total volume of output to date. It is related to the degree to which employees learn to do their job more efficiently over time.

Consequences:

If there are experience effects to be exploited, the company has a limited time to take advantage of them.

If there are economies of scale, the company which is first in and is bigger than competitors has the potential for an early cost advantage.

A company which has cost advantages should identify why: if it is from experience effects, the advantage can be expected to decline over time.

**6.7 – Economies of Scope**

The idea refers to a reduction in unit cost as the number of *products* is increased rather than the number of units produced. Why it could happen:

* Possibility of sharing inputs among several outputs (a retailer will attract more people if it carries more products – below a certain number of products, customers will not show up).
* The good reputation associated with some products may have a beneficial effect on others.
* There may be significant R&D spill-over effects among different products.

Economies of scope are not an automatic outcome of diversification. If products are in unrelated markets, using different resources and requiring different management skills it is just as likely that diseconomies of scope will result as scarce management skills are spread ever more thinly.

**6.8 – Production Costs**

Many accounting systems are incapable of providing an answer to the question of how much it costs to produce a particular product, and how costs vary as the level of output changes.

It is important to determine whether an increase in unit cost is due to factors outside the control of the company – business cycle effects and exogenous shocks – and which affect all companies, or whether it is due to the management of labor, in which case the cost increase will have a negative impact on the company’s competitive position.

**6.9 – Joint Production**

Joint production is important for cost analysis. Any attempt to allocate joint production costs among products is artificial. That allocated cost may be irrelevant for decision making purposes.

Variable costs might also be very difficult to identify.

**6.10 – Break-even Analysis**

How many units would have to be sold before the product starts making a net contribution?

Break-even = (Fixed Cost) / (Net Contribution per Unit)

Break-even analysis is limited in that it concentrates only on the volume of output and sales, and does not take into account the passage of time.

**6.11 – Payback Period**

How long will it be before the project pays back its start up costs? The calculation is identical to that of net present value except that the annual cash flows are not discounted; instead, they are summed until the total becomes positive.

The discounting approach takes into account both the incidence of cash flows over time and risk factors.

**6.12 – Accounting Ratios**

Financial techniques do not reveal how well resources are actually being deployed.

The objective of calculating accounting ratios is to assess the effectiveness with which resources have been allocated in the past. It can ident7 potential weaknesses in company management.

Revenue and costs must not include changes in assets; the buying and selling of assets is not directly related to the efficiency with which inputs are being converted to outputs.

Assets are part of many ratios. Nevertheless, it might be difficult to use them:

* different depreciation rules.
* Many of them are fully depreciated but operational.
* Different accounting methods might make one company look more profitable than another.
* It is difficult to adjust thousands of assets to current price.

Look at gearing ratios -> (Debt Finance) / (Shareholder equity)

**6.13 – Benchmarking**

A company’s competitive position can only really be assessed in relation to other companies in the industry.

We can compare our company to others with benchmarking measures like delivery times, stockholding ratios, manpower turnover. It does not reveal how the competitive advantage was achieved (otherwise it would be easy to imitate).

**6.14 – Sensitivity Analysis**

Predictions are difficult, but at the very least, the best possible and worst possible scenario for each important variable can be projected. Sensitivity analysis is related to the investigation of scenarios, but is conducted at a more detailed level.

Always use the two formulas about revenue and outlays to check results and consequences.

Sensitivity analysis can reveal the impact of variables on revenue and costs. It shows where are the expected threats.

Another aspect of sensitivity analysis is to identify the combination of circumstances which are necessary to ensure success. The reason that some projects fail is the lack of recognition that their success was actually dependent on the simultaneous occurrence of several favourable circumstances.

**6.15 – Research and Innovation**

Competitive advantages are not permanent. Companies have to adapt to innovative stance, recognize new ideas and changes and be ready to implement them when they occur.

There are two stages to the problem of allocating resources to research:

* how much to spend
* what criteria to use in order to identify potentially profitable products from the possibilities produced by research, since the company may have insufficient resources to exploit all potential products.

It is necessary to decide whether a particular dollar should be spent on research, or competing uses such as marketing new products or investing in new equipment.

One approach for R&D expenses is to adopt a rule of thumb, for example to keep research expenditure at some constant percentage of total costs, or total sales.

It is not always possible accurately to identify research expenditure in a company. Problems with joint productions, for example. There might be a spill over effect with the higher and the higher is research expenditure, the lower the development expenditure required to attain a given objective.

Research Expenditure: Indicative Factors:

* measurement of research expenditure
* past research budget: constant or variable.
* Expenditure as proportion of sales, total cost.

- Track record of new ideas.

* Spill over effects
* Power base.

**6.16 – Development**

Product development starts when the product is selected for development from the prototype stage, and often continues after launch and throughout the product life. Research results in the creation of a prototype which is potentially profitable.

There might be conflicts between development engineer, financial controller, marketing manager, and corporate manager.

Once a prototype has been identified as potentially viable, the question is: How much should be spent on developing it?”

Marginal analysis to the rescue:

* does the last dollar spent on development yield more or less than an additional dollar of profit?
* The decision to increase development expenditure by one dollar must be based on the implicit assumption that the marginal benefit is at least one dollar.

Again, use the formulas to check impact on revenue and outlays.

Phases of development:

Invention -> Prototype -> Patent -> Development -> Launch -> Market exploitation

**6.17 – Resource Management**

The management of resources has a direct bearing on the competitive position of the company; there is little point in producing an ambitious and innovative market strategy if the goods cannot be produced at a competitive cost. The outcome of inadequate resource management will inevitably emerge as unnecessarily high costs.

Approaches to resource planning:

# Reactive

* Look one period ahead.

*Proactive*:

Think about:

* Product life cycles
* Product launch periods
* Selecting a planning horizon
* Developing a resource plan
* Implications for marketing strategy.

Reactive mode: looks what will be happening next period, which may be no more than a quarter year, and hires and fires accordingly.

Is the company really carrying out a systematic appraisal of future resource requirements?

Strategic options:

## Predicted output greater than predicted demand

Options:

*Reactive*: discard resources (hiring / firing staff)

*Proactive*:

* produce to inventory (learning curve)
* reduce price (market share)
* increase marketing (competitive reaction)

## Predicted output less than predicted demand

Options:

*Reactive*: recalculate resources (backlog)

*Proactive*:

* increase price (market share)
* reduce marketing (competitive reaction)

**6.18 – Human Resource Management**

Different types of cultures:

* *Power Culture*: org revolves around one individual or small group who dominates decision making and determines how things are done. There are usually no explicit strategic plan, but if there is one it will tend to reflect the interests of the dominant leader rather than being based on analysis of the environment and explicit strategy choice.
* *Role Culture*: relies on committees, structures, analysis and the applications of logic. While a small group of senior managers make final decisions, they rely on procedures and systems and clearly defined rules of communication. Bureaucratic type of structure that works well in stable environments. External changes are usually not recognized at an early stage, and the company is not well equipped to deal with them because it is inflexible.
* *Task Culture*: orgs that are geared to tackle specific tasks which tend to be of limited duration. Based on flexible teams which are multidisciplinary. Power rests within the team structures. Teams must have a great deal of autonomy.
* *Personal Culture*: individual, pays little attention to the org and is most concerned with self gratification. Common with individuals professionals (architects, consultants).

Look for agent problems, where incentive is not aligned with revised strategic objectives.

**6.19 – Vertical Integration**

Should the company buy or make?

Benefits of buying (using the market):

* Suppliers can achieve economies of scale.
* Suppliers are subject to the discipline of the market; it is unnecessary to implement rigorous internal controls to ensure efficiency.

Costs:

* Coordination of production flows is more difficult, as the supplier might have other priorities from time to time.
* Private information can leak to competitors which use the same supplier.
* Transactions costs may be incurred.

Incorrect arguments against buying:

* To avoid paying the costs necessary to make the product (the costs have to be borne by someone)
* To avoid paying a profit margin to other firms (it is not the profit that is important, but whether the profit made is higher than could be made by the company were it to undertake the activity itself. Given a lack of experience and scale effects this is doubtful).
* To avoid paying high prices during peak demand (if the supplier is in a competitive market, the company would not be able to make it cheaper, as higher prices reflects higher input costs).

There are, however, problems in buying in the market:

* Life is too complex to draw up a contract which can take all eventualities into account.
* Difficulties involving in specifying and measuring performance with any accuracy.
* Neither party is willing to reveal all information to the other, and this may place the buyer at a disadvantage.

Internal organizations might work better sometimes, because:

* Any disputes in a vertical integrated environment can be settled by internal administrative mechanisms (general rules or informal mediation).
* As there is a guarantee that the internal relationship will be continuous and must be lived with there is more incentive to get things right.
* Depending on company culture, vertically integrated divisions may be more likely to behave in a cooperative fashion because they see themselves bound together in a common purpose.

Internal prices: can be misleading -> allow managers the option of buying from outside suppliers if their price is lower.

**6.20 – The Value Chain**

A company is like a chain of value producing activities which starts with inputs at one end and sales at the other. The overall value is represented by profitability. Porter broke the value chain down into two main components: primary activities (logistics of production and sales) and support activities (necessary to run the company but not directly related to production and sales).

*Primary activities*:

* In-bound logistics (receiving, storing, handling)
* Operations (produce, test, pack)
* Out-bound logistics (move to buyer, or bring the buyer to the service)
* Marketing and sales (information to buyers, inducements, opportunities to buy the product)
* Service: maintaining the value of the product.

*Support activities*:

* Procurement
* Technology department (product design, process development)
* HR management (manage the workforce)
* Management Systems (quality control, finance and operational planning)

Value chain analysis: the objective is to identify competencies which generate competitive advantage, aspects of performance in which the company is good compared with competitors. It also gives a view of strengths and weakness of the company.

**6.21 – Diversification**

There is no positive evidence that there is much real gain from diversification. Why is it so popular?

* Minimize Risk – In reality it minimizes management risk, not shareholder risk.
* Capture economies of scope – can it, really? It depends on case to case. Can management skills be used across all companies? Split it in several companies? Can the same management skills be used in all companies?
* Add value through the parenting function
* Benefit from synergy

**6.22 – Synergy**

Synergy should lead to the situation where a corporation is valued at more than the sum of the value of its individual parts if they could be separated. (2+2=5)

Synergy might be only wishful thinking on the part of companies engaged in expansion who have heard that synergy is an outcome of diversification. There is no way to know if synergy will be generated.

Synergy is often described as an almost mystical effect which makes itself apparent in cost and marketing advantages, without being explicit about the mechanism which actually causes these effects.

Which areas can synergy be generated?

* *Corporate management* – individual SBUs could share common indivisible resources, and eliminate excess capacity. This is not, however, a case of 2+2=5 but simply making the optimum use of capacity.
* *Economies of Scale* – while synergy is different than economies of scale, some dimensions of scale economies can be captured by diversification into similar products. There has to be a carry over from experience in similar production and selling environments, and is obviously similar to economies of scope; operating in similar markets has elements of doing more of the same thing, which is the notion of scale and experience effects.
* *Vertical Integration* – These economies are related to capacity utilization, transport costs, and so on. It is just a more efficient use of resources.
* *Capacity Utilization* – labor and facilities not fully utilized.
* *Joint Production*
* *Innovative Stimulus* – spark new ideas and approaches. Not likely to be predictable.

**6.23 – Competence**

Different companies are differently good at different things at different times. The aspects of competitive performance which a company is relatively good at are its capabilities, or competencies. The notion of distinctive competencies relates to all of the characteristics of a company which give it a competitive edge.

Individual competencies can be imitated and hence do not generate a sustainable competitive advantage, while the benefits of organizational integration are much more difficult to identify and copy.

What is NOT competency: spend more in R&D, shared costs or capacity, vertical integration.

Tests to apply to check if something is a core competence:

* It gives potential access to a wide array of markets.
* Makes a significant contribution to perceived customer benefits of the end product.
* It is difficult to imitate.

Core competencies are likely to be relatively rare. There are probably no more than five or six per company. If they are not recognized, companies can unwittingly surrender core competencies when cutting internal investments – cost centers – in favor of outside suppliers. It is therefore essential to distinguish between divesting a business and losing a core competence. By its nature, the cost of losing a core competence cannot be calculated in advance, but it may lead to a significant reduction in company performance.

Sometimes core competencies lead to core products (Canon laser print engines).

Chiesa and Manzini identified three levels of competence using categories of competence which can be utilized in diversification:

Systems, which comprise the goals, culture and organizational design of the company; it is at this level that the opportunities for diversification are identified.

Distinctive capabilities, which are the repeatable patterns enabling the coordinated and integrated deployment of knowledge and resources within the company. These can be exploited in the process of diversification by transferring bundles of skills and technologies.

Core outputs, which can be exploited for different or new products and services in new markets.

These levels can be decomposed to routines (distinct capabilities) and resources (core outputs).

**The competence based diversification:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Resources** | Acquired | **Routine Based** | **Unrelated** |
| *Current* | **Replication based** | **Resource based** |
|  |  | *Current* | *Developed* |
|  |  | Routines | |

The form of diversification can be classified depending on whether it is based on routines and resources currently residing within the company or routines and resources which have to be acquired or developed.

* *Routine Based Diversification*: in this case new resources need to be added to those currently available in the company, but the same routines can be used to manage them. Example: a utility company (electricity) going into gas or water.
* *Resource Based Diversification*: This occurs when a company starts producing outputs which utilize existing resources but which require different routines. To change current routines and introduce new routines can involve much more fundamental organizational change than the routine based diversification outlined before.
* *Replication Based Diversification*: the least risky form of diversification because it is based on an expansion rather than a change in the form of the organization.
* *Unrelated Diversification*: the only resource shared is the financial structure and control system. It is particularly risky when firm has to acquire new types of resources and manage them using routines with which it is unfamiliar.

**6.24 – Strategic Architecture**

Strategic Architecture: the way in which the company’s collection of unique attributes is combined together. It is a network of relational contracts within or around the firm. Firms establish relationships with their employees (internal architecture), with their suppliers or customers (external architecture), or among a group of firms engaged in related activities (networks). The value of architecture lies in the capacity of organizations which establish it to create organizational knowledge and routines, to respond flexibly to changing circumstances and to achieve easy and open exchanges of information.

**6.25 – The Definition of Competitive Advantage**

Competitive advantage can emerge for a number of reasons: pure chance, innovation, first mover advantage, differentiation, and so on. The real issue is whether competitive advantage is sustainable. Any advantages which the company has must have certain characteristics which make it difficult for other companies to emulate what they do.

There are two sources of potentially sustainable competitive advantage:

* Those based on the company’s market position (*strategic assets*)
* Those based on the internal strengths of the company (*distinctive capabilities*)

Strategic assets are in fact structural barriers to entry: relative size of the market, sunk costs, control by legislation or agreement, economies of scale and experience effects.

Distinctive capabilities take several forms:

* Architecture
* Reputation (difficult and costly to create but can yield significant added value)
* Innovation (unless there is a supportive architecture, innovation is unlikely to be managed successfully).
* Core competencies

The only way to achieve sustainable competitive advantage is to do things which competitors cannot imitate, or find too costly to imitate.

Two main factors contribute to the protection of competitive advantage:

Causal ambiguity: it is difficult to establish exactly what characteristics of the company contribute to its success. This is the reason why architecture and core competencies are so important – the architecture is unique to the company, and core competencies are difficult to identify.

Uncertain imitability – because of the causal ambiguity, potential competitors are faced with uncertainty as to whether their attempt at imitation will work.

**Competitive advantage in a stable market:**

|  |  |  |
| --- | --- | --- |
| ***Characteristic*** | ***Advantage*** | ***Source*** |
| High market Share | Relatively Los Cost | Asset |
| No New Customers | Barriers to Entry | Asset |
| Contracts Exist | Low Selling Costs | Architecture |
| Fixed Plant Capacity | Full Utilization | Asset |
| Stable Labor Force | Top of Experience Curve | Asset |

**6.26 – Strategic Advantage Profile (SAP)**

We’ve seen already the ETOP (Environmental Threat and Opportunity Profile. The same approach can be used for the internal characteristics of the company by constructing a profile which summarises where competitive strengths or weaknesses are likely to lie. An attempt can then be made to rank the strengths and weaknesses to generate a balanced view of the company and its potential.

It may not always be possible to classify a particular characteristic unambiguously as a strength or a weakness.

Example of *Strategic Advantage Profile*

|  |  |  |
| --- | --- | --- |
| ***Internal Area*** |  | ***Competitive strength (+) or weakness (-)*** |
| Research | + | Recently invented a temperature control. |
|  | - | Team has a narrow vision. |
| Development | + | Reduce lead time by 15% |
|  | - | Costs are usually overrun by 20% |
| Production | + | Working at full capacity |
|  | - | High labor turnover rate |
| Marketing | + | Computerized customer databank |
|  | - | Lack of technically qualified salespeople |
| Finance | + | Share price is buoyant |
|  | - | Lack of liquidity |

We then analyze each one of these items and its consequences.