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**SWP 62/89 SOME METHODOLOGICAL COMMENTS ON
THE DIRECTIONAL POLICY MATRIX**

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SOME METHODOLOGICAL COMMENTS ON THE DIRECTIONAL POLICY MATRIX

by Professor M.H.B. McDonald, Cranfield School of Management, July 1989

INTRODUCTION

The intention of this paper is to explore why such a potentially rich tool as the Directional Policy Matrix (DPM) appears to be so rarely used in the real world of marketing and in the preparation of marketing plans. The author has worked with over a thousand directors and senior managers on marketing planning for over a decade, and only in a few instances has the DPM been used correctly and to any useful effect. These notes are the result of working on the construction of an Expert System for Marketing Planning for the DTI EXMAR Club, for which the author is the principal external expert.¹ The Directional Policy Matrix is one of the central tools of this Expert system.

The paper assumes that the reader is familiar with the origin and development of the Directional Policy Matrix.

This paper will deal in detail with a number of issues which seem to cause problems for very experienced and well qualified marketing practitioners when they attempt to use a tool which, at the cognitive level, appears straightforward, in their own operational environment.

It will begin by discussing a number of comparatively straightforward issues, and will move gradually into the much trickier areas which seem to cause most of the problems. The issues dealt with are as follows:

1. Definition of Strategic Business Unit (SBU)

Although this is comparatively easy to deal with, it is rarely explained in prescriptive texts dealing with the DPM. The most commonly-accepted definition of an SBU is as follows:

1. It will have common segments and competitors for most of the products.
2. It will be a competitor in an external market.
3. It is a discrete, separate and identifiable "unit".
4. Its manager will have control over most of the areas critical to success.

The process of defining an SBU can be applied all the way down to product or department level.

2. **Definition of what should be plotted on the matrix**

This is also a comparatively simple issue to deal with, although again, some confusion arises because the options are rarely spelled out.

Let us take a hypothetical two dimensional "market" into which a number of products are sold, as follows:

		<u>PRODUCT</u>				
		A	B	C	D	E
<u>MARKETS</u>	1					
	2					
	3					
	4					
	5					

Each square might be considered as a segment, and various combinations could be considered to be the "market", as follows:

- a) the actual product/customer cells served;
- b) the intersection of product functions ABC and customer groups 2,3,4
- c) product functions A,B,C for all customer groups;
- d) customer groups 2,3,4, for all product functions;
- e) the entire matrix.

The lesson here for the use of the DPM is clear. There has to be more than one (we would say at least three, and would suggest a maximum of ten) "markets" or segments on the vertical axis. These can be either existing

markets or potential markets. By definition, therefore, this means that there will be more than one "product" on the horizontal axis (in the case of the minimum, three). There can be more than three if the planner chooses to plot more than either one product or the aggregation of all products in any served market.

Definitions of "market" and market segment whilst useful, don't really help all that much to solve the conundrum; but the following is probably quite useful for our purpose here:

"An identifiable group of customers with requirements in common that are, or may become, significant in determining a separate strategy".

The answer, then, is clearly a matter purely of management judgement, and at the beginning of any exercise using the DPM, the most important priority must be to define correctly the unit of analysis.

For example, it is clearly possible to put 25 circles (or crosses, where there is no turnover) on a portfolio matrix, with markets 1-5 on the vertical axis and each of products A-E on the horizontal axis, (ie. [e] above) but that would probably result in a very confusing array of circles and crosses.

It would also be possible to put 6 circles on a matrix, (ie. the actual product/customer cells served (a) above, with markets 2, 3 and 4 on the vertical axis and products A, B and C as appropriate for each of these served markets on the horizontal axis.

Alternatively, instead of products A, B and C being individually plotted on the Critical Success Factor (CSF) horizontal axis, an aggregate value or volume could be plotted for all products in any served market. Or, indeed, any of the combinations listed in the example above could be used. The user clearly has to decide early on exactly what will be the unit of analysis for the purpose of determining the size of each circle that will appear in the Matrix.

The other lesson concerns an even broader meaning of the word "market". It really can mean anything we wish it to mean, eg. Country, Region, Division, Subsidiary, Market, Segment, Outlet, Distributor. The writer has even used it for "breakfast" attractiveness in the case of a hotel with a problem. The issue

of whether products can be plotted on the vertical axis instead of markets will be discussed now.

3. **How to deal with sales into a single market**

Recently the writer experienced the interesting case of a senior marketing manager of a blue chip company who dismissed the DMP as irrelevant because he had only four principal products, each one of which was sold to the same customer (or market). Clearly we are talking about major capital sales in this instance.

The manager had plotted products A B C and D on the horizontal axis with only one "market" on the vertical axis. The resulting matrix obviously had four circles in a straight line. Since the purpose of a matrix is to develop a relationship between two or more variables judged by the planner to be of significance in a given planning context, this matrix was clearly absurd and served no useful purpose whatever.

If this manager really wished to use the DPM, he would have to put products A, B, C and D on the vertical axis and look at their respective size and strengths on the horizontal axis. In such a case, all we have done is to change the nomenclature, making a product equivalent to a market, which is clearly acceptable. The main point is that the purpose of the DPM is to display clearly and visibly the relationships between product/market variables.

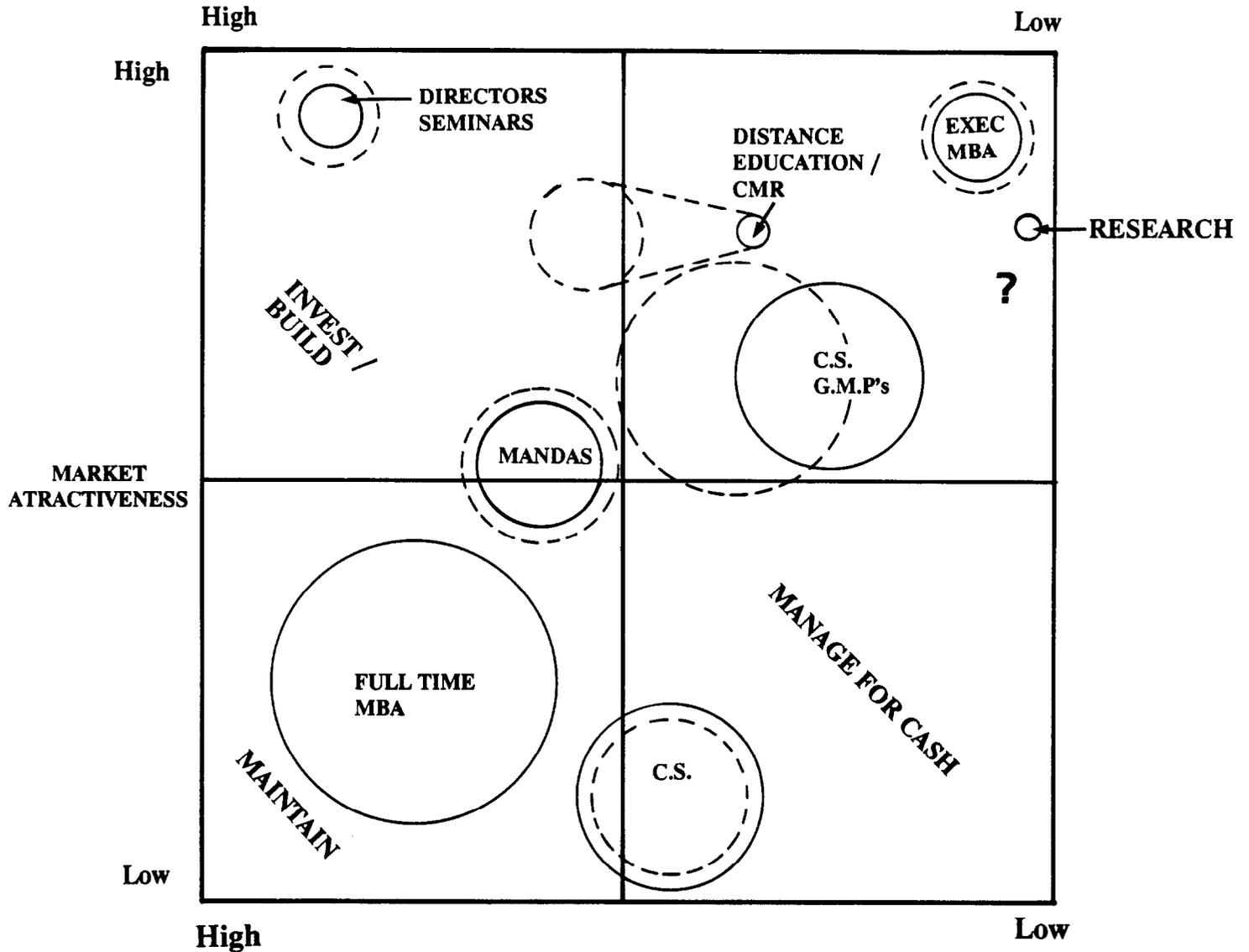
It is certainly possible to use "product" as "market", especially in the case such as that first described for unless the four products are identical in all respects, each would in practice represent a different market to us. This is certainly the case for the Cranfield School of Management portfolio, where product (eg. MBA programme) equals market.

Figure 1 is a reproduction of the Cranfield portfolio in 1984 showing current (1984) and forecast positions (1988). (Almost six years later, the circles are in different positions - for example, the Executive MBA is much larger and to the left of the matrix as a result of executive action - surely the purpose of using the DPM in the first place !)

Figure 1:

SCHOOL OF MANAGEMENT PRODUCT PORTFOLIO

OUR COMPETITIVE POSITION / BUSINESS STRENGTHS



KEY:



= PRESENT POSITION



= FORECAST POSITION IN 3 YEARS

4. **How to deal with Business Strengths/Critical Success Factors**
(the horizontal axis).

We can now turn to issues which are somewhat more complex and often cause confusion.

The first of these concerns the quantification of Business Strengths in a "market".

It is the writer's view that the lists of factors in most books offered for the manager to choose from are not particularly useful when used by marketing managers for the purpose of constructing a marketing plan. Few of these factors take account of the need for a company to make an "offer" to a particular "market" that has a sustainable competitive advantage over the "offers" of relevant competitors. The only way a company can do this is to understand the real needs and wants of the chosen customer group, find out by means of market research exactly how well these needs are currently being met by the main relevant products on offer, and then seek to satisfy these needs better than their competitors.

The following is a typical calculation made by a company using a methodology developed by the author to estimate its strength in a market.²

1. **CRITICAL SUCCESS FACTORS**

(WHAT ARE THE FEW KEY THINGS THAT ANY COMPETITOR HAS TO DO RIGHT TO SUCCEED ?)

1	PRODUCT
2	PRICE
3	SERVICE
4	IMAGE

(THESE SHOULD NORMALLY BE VIEWED FROM THE CUSTOMER'S POINT OF VIEW)

2. **WEIGHTING**
(HOW IMPORTANT IS EACH OF THESE CSFS ? SCORE OUT OF 100).

20
10
50
20

TOTAL 100

3. **STRENGTHS/WEAKNESSES ANALYSIS**

(SCORE YOURSELF AND EACH OF YOUR MAIN COMPETITORS OUT OF 10 ON EACH OF THE CSFS, THEN MULTIPLY THE SCORE BY THE WEIGHT)

CSF \ Comp	YOU	COMP. A	COMP. B	COMP. C
1	9=1.8	6=1.2	5=1.0	4=0.8
2	8=0.8	5=0.5	6=0.6	10=1.0
3	5=2.5	9=4.5	7=3.5	6=3.0
4	8=1.6	8=1.6	5=1.0	3=0.6

TOTAL (SCORE X WEIGHT)	6.7	7.8	6.1	5.4
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From this it will be seen that:

- this organisation is not market leader;
- all competitors score more than 5.0

The problem with this and many similar calculations is that rarely will this method discriminate sufficiently well to indicate the relative strengths of a number of products in a particular company's product/market portfolio.

Some method, then, is required to prevent all products appearing on the left of the matrix.

This can be achieved by using a RATIO, as in the Boston Matrix.

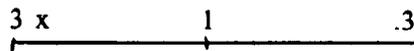
In this case, a ratio will indicate a company's position relative to the best in the market.

In the example provided, Competitor A has most strengths in the market, so our organisation probably needs to make some improvements when compared with the "leader".

To reflect this, our weighted score should be expressed as a ratio of Competitor A (the highest weighted score).

Thus $6.7 \div 7.8 = 0.86 : 1$

If we were to plot this on a LOGARITHMIC scale on the horizontal axis, this would place our organisation to the right of the dividing line as follows:



(We should make the left hand extreme point 3 x and start the scale on the right at 0.3)

A scale of 3 x to 0.3 has been chosen because such a band is likely to encapsulate most extremes of competitive advantage. If it doesn't, just change it to suit your own industry circumstance.

5. **How to deal with Market Attractiveness Factors**

The first time managers try using the Directional Policy Matrix, they frequently find that the circles do not come out where expected. One possible reason for this is a misunderstanding concerning the use of Market Attractiveness Factors. Please remember, you will be most concerned about the POTENTIAL for growth in volume, growth in profit, and so on for your organisation in each of your "markets".

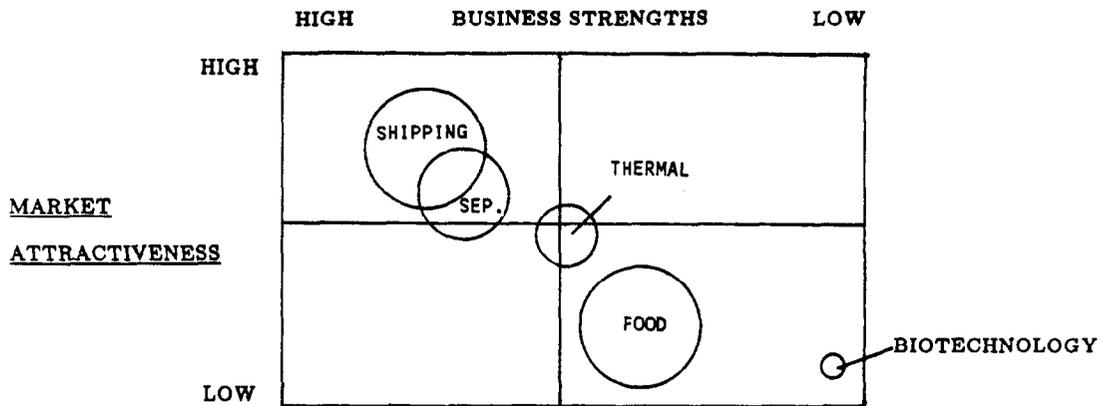
For example, even if a "market" is mature (or even in decline), if the potential is there for your company to grow in this mature market, then it would obviously be more attractive than one in which there was little or no potential for you to grow. (As would be the case, for example if you already had a high market share).

Likewise, even if a "market" is currently very profitable for your company, if there was little or no potential for growing the profit, this "market" might be considered less attractive than one which was currently not so profitable to your company, but which offered good potential for growing your profits.

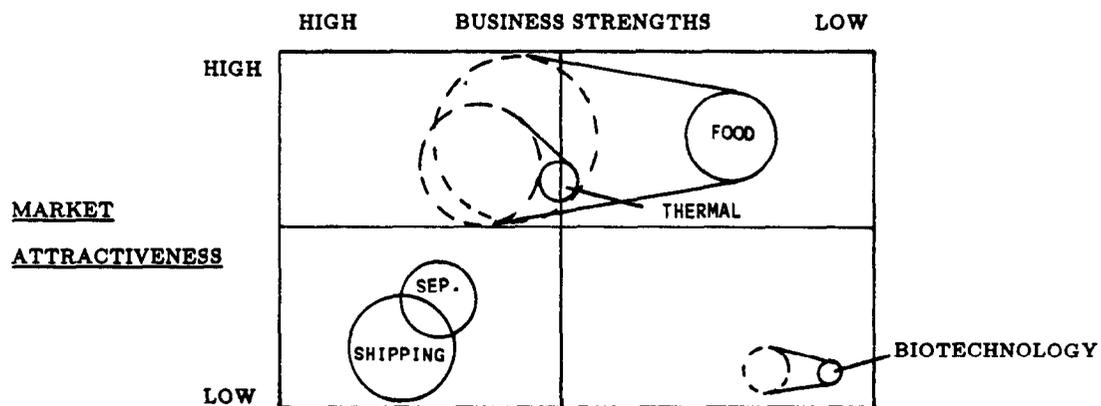
Let us have a look at two companies whose revenue and profits were static for two consecutive years, and both of which kept their shareholders at bay by selling off part of their assets. The boards of both companies attempted to use the DPM to help clarify the options. In both cases, the resulting matrix was not a reflection of the reality.

CASE 1 (An International Engineering Company)

Here, the Shipping, Food, Thermal and Separation Divisions were all operating in no growth markets. Only Biotechnology Division was in a growth market. Using MARKET GROWTH as a factor obviously caused all Divisions to appear in the bottom half of the matrix except the Biotechnology Division. The other factor used, however, was PROFITABILITY, which in the case of shipping and Separation was high. The weighting of 60 per cent on the profit factor pulled both of these Divisions into the upper part of the matrix. Strengths in each case were different, and the resulting matrix looked as follows:



However, since both Shipping and Separation Divisions had little (if any) potential to grow their volume and profitability in mature markets, and since Food and Biotechnology Divisions did, the circles were clearly in the wrong place. The reality facing the company was as follows:



The opportunity was clearly there for this company to invest in the Food Division, where it was comparatively weak, also in the Thermal Division. Both of these markets provided ample opportunity for the company to grow its market share and strengths, (especially if it also used productivity measures at the same time), in spite of the fact that both markets were relatively mature.

In other words, all we are really interested in is the potential for us to grow our volume and profits, and in some instances, externally derived factors of market growth and profitability, however accurate, are not particularly useful.

Having reached the conclusion above, obviously this company then took each Division in turn and completed the DPM for each of their component parts in order to decide how best to allocate resources.

CASE 2 (A conglomerate with twelve separate companies)

This group, although enjoying very high R.O.C.E., was also under extreme pressure from the financial institution because its turnover and profits were static. At a Directors' meeting, the DPM was used as one of the basic tools of analysis. R.O.C.E. of the companies varied between 500 per cent and 5 per cent, with seven above 50 per cent and 5 below 15 per cent.

Again, using market growth and industry R.O.S. as the factors, weighted 30 and 70, not surprisingly, all the high profit companies appeared in the top left of the matrix and all the low profit companies appeared in the bottom half of the matrix. All this did was to confirm the group's existing position, but was of little value when considering the future.

The author advised the Directors to change the factors to encapsulate potential for growth in volume and profits rather than the inherent growth and profitability of the markets themselves. The resulting DPM then showed most of the high profit companies in the lower half of the matrix, since few of them were in growth markets and most already had high market shares.

It also demonstrated clearly another point of policy. One company enjoying a 500 per cent R.O.C.E. could grow, providing the chairman was prepared to allow them to redefine their market more broadly and move into lower R.O.S. segments. Such a policy move would have put this particular company back into the top part of the matrix !

But this, of course, is the whole point of using the DPM in the first place. It should raise key issues and force senior executives into thinking about the future in a structured way.

6. **In considering the position of the circles at some time in the future: can the circles move vertically ?**

No is the best answer, although *yes* is also an acceptable answer, providing the matrix shows the current level of attractiveness at the present time. This implies carrying out one set of calculations for the present time according to the agreed Market Attractiveness Factors, in order to locate markets on the vertical axis, then carrying out another set of calculations for a future period (say, in three years time), based on our forecasts according to the same Market Attractiveness Factors.

In practice, it is quicker and easier to carry out only the latter calculation, in which case the circles can only move horizontally. This makes *No* the more likely answer.

7. In considering the position of the circles at some time in the future: can Market Attractiveness Factors change whilst constructing a Directional Policy Matrix ?

No, of course, is the correct answer. Once agreed, under no circumstances should Market Attractiveness Factors be changed, otherwise the attractiveness of our markets is not being evaluated against common criteria and the Matrix becomes meaningless. Scores, however, will be specific to each market.

Please note, however, that you must list the "markets" that you intend to apply the criteria to before deciding on the criteria themselves, since the purpose of the vertical axis is to discriminate between more and less attractive "markets". This will prevent all your "markets" appearing in the top half of the matrix, which would clearly make the exercise pointless.

The criteria themselves, therefore, must be specific to the population of "markets" under consideration, and, once agreed, must not be changed for different "markets" in the same population.

The author was recently working with a group of senior managers in an international steel company. They defined Market Attractiveness Factors correctly, weighted each one accordingly, and then proceeded to put through only their five top markets. Not surprisingly, all appeared in the top left of the matrix ! If they intended to use only their top performing markets, then clearly they should have devised criteria that would have discriminated only between those five markets.

IN CONCLUSION

It will be readily grasped from the foregoing discussion why the DPM can so easily be misused and misunderstood, in spite of the technique being described in most basic marketing texts and being taught on many basic marketing programmes. The fault appears to lie more with those responsible for writing about and teaching the subject than with those who try to use it.

Similar problems caused the somewhat simpler Boston Consulting Group Matrix (B.C.G. Matrix) to fall into misuse.

The author has written two Computer Based Training Programs, one on the B.C.G. and one on the DPM.³ Both feature a case study and ask the "student" to work through the methodology, using the data provided. A self scoring system is provided in each program.

Having put over a thousand students and practising managers through these programs, the author is convinced that both methodologies are just as valuable today as when their creators first introduced them into an excited business world. The ultimate proof came one day when a competent postgraduate teacher, having been through both computer programs, approached the author and said:

"Do you know, I have been teaching the B.C.G. Matrix and the D.P.M. for seven years, and this is the first time I've really understood them and realised their true potential"

In particular, the DPM is especially powerful. It should not be allowed to die because of ignorance.

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- 3 Rank Training, 1989 (Address: Cullum House, North Orbital Road, Denham, Uxbridge, Middx. UB9 5HL)