Market segmentation: strategies for success

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Despite the well-documented benefits which segmentation offers, businesses continue to encounter implementation difficulties. This raises concerns about the cause of these problems and how they might be overcome. These concerns are addressed in this paper in the form of three questions: Is segmentation a good idea? If segmentation is such a good idea, why does it sometimes fail? What can be done to reduce the chance of failure? A mix of published evidence and case examples is used to explore these questions. The paper concludes by suggesting that if marketers are to overcome their segmentation implementation difficulties, they need practical guidance at three stages in the segmentation process. Before the project begins they must understand the role of success factors contributing to a successful result. During the segmentation project the qualities of the emerging segments must be clarified. After segmentation is complete the question of segment attractiveness must be considered. There is currently a gulf between the priorities of academics and practitioners carrying out segmentation. If this is to be bridged, further research is needed to provide guidance on segmentation success factors.

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Introduction

Businesses from all industry sectors use market segmentation in their marketing and strategic planning. For many, market segmentation is regarded as the panacea of modern marketing (Wind, 1978). Both the underlying logic and the rewards which segmentation offers are well established in the literature. Customer needs are becoming increasingly diverse. These needs can no longer be satisfied by a mass marketing approach. Businesses can cope with this diversity by grouping customers with similar requirements and buying behaviour into segments. Choices about which segments are the most appropriate to serve can then be made, thus making the best of finite resources.

Despite the attention which segmentation attracts and the resources which are invested in it, increasing evidence suggests that businesses have problems operationalising segmentation. As will be explained, these problems take various forms. The outcome is that the segmentation process does not necessarily result in homogeneous segments of customers for which appropriate marketing programmes can be developed. Putting it another way, the segmentation process may fail. This raises concerns about what causes segmentation failure and how it might be overcome. This paper addresses these concerns by debating three segmentation questions. These questions are explored using a mix of published evidence and case examples:

1. Is segmentation a good idea?
2. If segmentation is such a good idea, why does it sometimes fail?
3. What can be done to reduce the chance of failure?

Is segmentation a good idea?

The underlying logic for market segmentation is well established. It centres on the assumption that customers demonstrate heterogeneity in their product preferences and buying behaviour (Green, 1977; Wind, 1978). This variability is generally explained by differences in product and/or user characteristics (Kalwani and Morrison, 1977; Mahajan and Jain, 1978). Market segmentation helps businesses deal with this heterogeneity by balancing the variability in customers' needs with the limits of available resources. For most businesses it is simply unrealistic to satisfy the entire diverse customer needs in the marketplace. By focusing marketing efforts on certain segments, the impact of limited resources can be increased.

> Segmentation is fundamental to successful marketing strategies. Until competitors copy or segment your segmentation, you have a competitive edge, even if you serve the segment with a standard product or service. If the product or service is specific to the segment then your competitive advantage is multiplied (McBurnie and Clutterbuck, 1988).

Advocates of segmentation suggest that businesses adopting a segmentation approach can enjoy a variety of benefits. The customer and competitor analyses which a segmentation approach require, allow the business to become more in tune with the behaviour of both. The result can be a better understanding of customers' needs and wants, allowing greater responsiveness in terms of the product on offer. The enhanced appreciation of the competitive situation also allows the business to better understand the appropriate segments to target and the nature of competitive advantage to seek. Furthermore, a segmentation approach can add clarity to the process of marketing planning, by highlighting the marketing programme requirements of particular customer groups.

The process of segmentation, in a simplistic sense at least, is also well established. There can be few marketers who fail to recognise the three stages of market segmentation: segmenting; targeting; positioning (STP) (Kotler, 1984). According to this model, illustrated in Figure 1, the process begins with the aggregation of customers into groups, to maximise homogeneity within, and heterogeneity between, segments.

Evidence of how this process works in practice raises two fundamental concerns:

1. businesses which believe they are applying a market segmentation approach, may not necessarily be doing so; and

Figure 1
The STP of market segmentation

SEGMENTATION
- Choose variables for segmenting market
- Build a profile of segments
- Validate emerging segments

↓

TARGETING
- Decide on targeting strategy
- Identify which and how many segments should be targeted

↓

POSITIONING
- Understand consumer perceptions
- Position products in the mind of the consumer
- Design appropriate marketing mix to communicate positioning

Source: Adapted from Dibb, S. *et al*. (1997 p. 205)

2 marketers who are following the prescribed steps may not be achieving results which can be implemented.

The first problem arises, in part, from the imprecise use of segmentation language. The intrinsic attractiveness of the process and the pleasing nature of the benefits on offer have resulted in the label of "segment" being applied to almost any grouping of customers. In many cases these groupings do not consist of customers with homogeneous needs and buying behaviour. Piercy (1992) cites an example of this in the corporate banking sector, where some banks divide their customer base in terms of turnover and/or size criteria. Despite the fact that these businesses talk about the resultant groupings as if they are genuine customer segments, in practice they may fail to delineate between customers in terms of product requirements and buying behaviour. Considering the wealth of purchase data available to these banks, it is ironic that more creative segmentation schemes are not in operation. However, in recent years there has been considerable progress, as the banks seek to develop their databases in ways which allow the implementation of needs-based segments (Meadows and Dibb, 1998).

The second problem concerns the fact that marketers who follow the prescribed segmentation sometimes fail to generate a usable segmentation solution. In this respect the apparent simplicity of the three-stage STP process belies some of the underlying difficulties. The following example, taken from research in market for car parts, illustrates some of the difficulties that may arise.

European car parts example

A European manufacturer of car parts was keen to understand the needs of its customers better, so that it could develop a more sophisticated segmentation approach (Dibb, 1992). An interesting quirk of this particular market is that the consumer into whose car the part is fitted does not usually make the brand choice. In most cases the brand selection will be made by the garage, known in the trade as the installer, to which the car has been taken for servicing or maintenance. Traditionally, installers are classified by the industry into the following types: specialist repairers, independent garages, vehicle manufacturers' agents, menu/fast-fit operations and retailers. The end consumer, who pays for the part to be installed, in most cases will not know what brand of part has been used, so the brand choice rests with the installer. Taking into account where the brand choice occurs, the car parts manufacturer decided to consider segmentation at the installer level. Research was commissioned to collect data on all aspects of the installers' needs.

A quantitative telephone survey collected data from 200 UK-based garages and car parts retailers. Questions focused on all aspects of their supplier needs: quality of parts, delivery requirements, service needs, pricing, product range and degree of product innovation. A telephone-based approach was chosen because many respondents acted as mechanics and were deemed unlikely to complete a mailed research instrument. This approach also allowed tighter control to be maintained over the sample selection.

The analysis of the data took place at two levels. First, some simple cross tabulations were undertaken to establish whether or not the existing industry sectorisation into installer type revealed distinctive differences in terms of customer needs. Out of the 40 needs-based variables tested, for only nine was variation by installer type statistically significant. The second stage of the analysis used cluster analysis to identify new needs-based segments in the data. Following the approach of Doyle and Saunders (1985), factor analysis was used to reduce the 40 variables to 14. Ward's hierarchical cluster analysis was then applied. This clustering routine successively joins cases together at different levels to form a dendrogram (tree diagram). The solution containing seven clusters was selected as the optimum. Attempts were then made to profile these clusters using a variety of demographic and behavioural descriptors. Although the cluster solution was acceptably validated using a widely-recognised approach (Choffray and Lilien, 1980), the profiling did not result in distinctive installer groups in terms of the demographic and behavioural descriptors applied. Furthermore, there was no evidence that different installer types could be logically allocated to the segments. The results of this segmentation exercise, while offering some customer insights, were unable to pinpoint a scheme which could be readily implemented by the manufacturer. In simple terms, the clear customer profile that is required if suitable marketing programmes are to be developed was not forthcoming.

Why does segmentation sometimes fail?

When attempting to measure whether or not segmentation has succeeded or failed, it is important to clarify the notion of success. Little research has dealt directly with the question of success or failure in segmentation research. Indeed, the literature on segmentation success is still at an early stage. In particular, there is a lack of quantifiable evidence about the impact of segmentation on business performance. As with so many questions regarding the relationship between marketing strategy and measurable business outcomes, proving the link with particular strategic decisions is difficult to achieve. The implication of this gap in quantifiable evidence will be considered later. For the purposes of this discussion, the phrase "segmentation failure" is used to refer to situations in which following the segmentation process has failed to generate a solution that can be implemented. This means that it has not been possible to use the segmentation to develop a suitable marketing mix. The discussion that follows focuses on three key themes: problems which marketers experience in understanding segmentation principles, difficulties presented by a complex and difficult-to-access literature and the lack of practical guidance on what makes segmentation successful.

Misunderstanding of segmentation principles

Perhaps the classic illustration of poor understanding of segmentation principles comes from the following quotation from a managing director, which emerged from a study examining the competitiveness of British industry. The study suggested that British businesses were comparatively weak in the application of a segmentation approach:

> I don't know if we segment the market, or who we really position ourselves against the competition. I expect our advertising agency knows. I think we are probably up-market, because we advertise in some very posh magazines (Doyle *et al.*, 1986).

Despite the elapsed time since this research was published, in a recent paper, Doyle (1995) reiterates the difficulties arising from a poor understanding of segmentation principles. Difficulties arise in a number of areas. First, marketers may fail to consider that segments must be meaningful to customers, and not just to the business. As has been illustrated by the corporate bank example, many businesses see segmentation as a convenient way of carving their markets into more manageable pieces. Although this approach may provide the business with a range of operational benefits, in a marketing sense it may fail to deliver homogeneous customer segments. This means that while the organisation may find its business operationally simpler to manage, it will be unable to enjoy the benefits associated with customer-based segmentation. For example, as the corporate bank example showed, it may not be possible to develop a distinctive and appropriate marketing programme for a particular segment.

The second misunderstanding of segmentation arises from the tendency of some marketers to over-emphasise the minutiae of the segmentation process at the expense of the underlying objectives. Marketers become so engrossed in data collection and analysis that they lose sight of what they hoped to achieve. One possible explanation for this treatment, is the difficulty which businesses encounter in making segmentation work in practice. In such cases, the process of grouping can begin to override the reasons for carrying it out in the first place. This problem is illustrated in the following example. Businesses sometimes use an analysis of sales and contribution (financial value to the company) to evaluate the financial worth of segments. This involves comparing current sales in different segments against their current level of financial contribution (Dibb and Simkin, 1996). Sometimes these businesses are surprised to find that segments which were historically lucrative, no longer make much financial contribution. Although efforts to collect segment data and develop suitable marketing programmes for these segments have continued, there has been a lack of critical analysis about their attractiveness to the business.

In some cases, marketers become too entrenched in the detail of segmentation because they lack expertise in linking the process into the business' strategic planning. This relates to the final segmentation difficulty to be reviewed: the degree to which the approach is viewed strategically. Market segmentation advocates insist that like any marketing planning activity, segmentation analysis needs to have a longer time horizon than next week or next month. The

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implication is that segmentation should begin with a clear analysis of customer needs and buyer behaviour, must also examine the competitive and wider trading environments, and should result in consistent marketing programmes, implemented over time. Prestigious brands such as Rolex, Gucci and Rolls Royce, have certainly adopted a segmentation approach, choosing to focus their resources on carefully defined groups of customers. Having prioritised their segments, they have communicated with customers in a clear and consistent manner. Customers, potential customers and competitors are left in no doubt about what these brands stand for.

Some businesses view segmentation more as a tactical trick than as a serious strategic marketing tool. In some respects it has become industry's buzz phrase: the panacea for anything and everything. The temptation to view segmentation as another of marketing's "goodies" in a kind of "sweet shop" mentality may be just too great. Advertising executives sometimes complain that product and brand managers view promotion as a tactical solution to short-term declines in sales. When the month's figures are poor, advertising personnel complain that the managers visit the promotions "sweet shop", with a steady stream of requests for quick-hit campaigns. Segmentation is sometimes viewed in the same manner, used tactically to deliver short-term benefits, ignoring the need for a longer-term perspective. For consumers the result can be a confusing mix of inconsistent marketing programmes.

Problems with the segmentation literature

Discussions with a range of marketing practitioners from industries as diverse as industrial chemical and car components to distillers and snack foods are quick to criticise the accessibility and user-friendliness of the so-called academic literature. The use of technical and turgid language is a particularly common criticism, though not unique to the segmentation literature. While it is beyond the scope of this article to conduct a detailed examination of general questions about the style and presentation of academic literature, it is important to explore issues which are specific to the segmentation literature. One of the most fundamental concerns is that the literature reflects a gulf between academic and practitioner needs and that academics have a research agenda which sets different kinds of priorities to those of practitioners. A second area of concern is that the literature fails to consider some of the practical constraints faced by marketers seeking to implement a segmentation approach.

The academic/practitioner gulf

The problems which managers face in implementing segmentation are compounded by discrepancies in the priorities of researchers, who emphasise segmentation techniques, stressing the need for statistically robust segmentation schemes, and practitioners, who focus on segment for which clear marketing programmes can be developed (Wilkie and Cohen, 1977). Table I, which is developed from the work of Wilkie and Cohen, illustrates the difference in priorities. The effects of this discrepancy can be observed in the output from academic (research) and practitioner publications. While the research literature emphasises the choice of base variables, multivariate techniques available for the analysis and validation of segmentation output, practitioner sources are more concerned with how the output can be implemented.

A particular area of difficulty which requires further investigation, is the manner in which the literature treats the area of statistical analysis. Academics and practitioners who become involved in segmentation projects may refer to the literature for guidance. Although the academic literature focuses extensively on the use of different statistical approaches in segmentation research, there is very little practical guidance about the numerous problems and pitfalls. For those with limited statistical training, these pitfalls can have serious consequences.

The dangers of statistics

The widespread availability of statistics software packages makes multivariate analysis accessible to most managers. However, many managers are not trained to deal with the complexities of statistical analysis. The result is that while statistical packages may appear to offer instant solutions to managerial problems, insufficient is done to warn the non-statistician about the pitfalls associated with inappropriate use. The need to validate statistical output with appropriate tests and procedures is just one of the areas which may be ignored. The existence of a business culture in which personnel use statistics to say what they want them to, does not help matters. For example, managers may be in the habit of manipulating statistics to support requests for additional resources or to maximise sales figures and may not recognise the value of appropriate statistical validation.

Assuming that managers have the appropriate statistics know-how, those wishing to undertake multivariate segmentation analysis must also question the quality of their data. It is important to consider that in

Table I
Comparing and contrasting academic and practitioner priorities in segmentation research

Academic (research)	Practitioner
"Correlational" research: begin with actual behaviour, then search for variables to explain it	Interested primarily in why customers behave as they do
Main emphasis is on techniques for doing the analysis	Look for relationships between wants and goals, attitudes and subsequent behaviour
Tendency for quantitative presentation, using approach such as multiple regression, conjoint analysis, etc.	Tendency for qualitative presentation, may use cluster analysis or possibly no multivariate statistics
Widespread efforts to increase/refine the use of different techniques	Recognise the constraints of existing company structure, so focus on implementation concerns
	Interested in how segmentation output can be used in planning

processing data, multivariate techniques are also simplifying the information available. If the quality of the data is poor to begin with, the analytical process will simply exacerbate any inaccuracies. Data quality concerns how closely the encapsulated information reflects reality. There are two key reasons why it may not. First, the data may be out of date and second, the method, circumstances or research instrument may have rendered the data inaccurate.

The problems of data quality are aptly illustrated by the example of a recently privatised public utility which has invested considerable resources in researching the national customer base. With privatisation and deregulation this business is, for the first time, able to target consumers and business users outside its regional area. Similarly, other privatised public utilities will be able to target customers from inside this company's traditionally protected market. The business aimed, through its customer analysis, to try to identify the customers most likely to switch, both within and out of its regional area. The results of the analysis suggested that the brand value of the utility was very low, compared with competing utilities, away from its traditional home ground. A debate ensued about how best to build the brand profile. This debate was quickly punctuated by one of the marketing managers who made the following comment: "I don't believe the research findings. I'm sure awareness of our brand is better than these figures indicate. Don't you remember that customer research we did in the early 1980s? The brand profile was much better than this!". The flaw in the marketing manager's thinking is self-evident. While all marketing research is, to some degree, out of date, the dangers of relying on dated information increase as the data become older.

Some of the difficulties associated with statistical analysis in segmentation research arise because the manipulation of statistics falls into the hands of the untrained. The case reviewed below, which comes from an ongoing study into the use of multivariate analysis in segmentation research, illustrates the problems that may result. The example powerfully illustrates that even researchers skilled in multivariate analysis must proceed with care.

Applying cluster analysis in segmentation research

The data set comprised 270 pregnant women having ante-natal care in the South of England and had been collected by the local health trust. The intention was to use the data as the basis of a segmentation study to try and better understand the level of satisfaction with care received, and to see whether women could be grouped on this basis. Data were available on the following variables:

1 *Demographics*:
- woman's age;
- woman's home location;
- partner employed/unemployed;
- partner's occupation.

2 *Satisfaction*:
- seen by same staff on each visit?;
- given enough time to discuss?;
- reasonable waiting time?;
- able to ask all required questions?;
- overall level of satisfaction?

The intention was to use cluster analysis to identify segments in the data. This multivariate technique is widely applied in segmentation analysis by academics and practitioners (Aldenderfer and Blashfield, 1984). It works by using a measure of similarity or distance to create homogenous groupings or clusters. At the start of the process, the cases, individuals or companies being analysed are separate entities. As the analysis progresses the entities that are most similar in terms of certain pre-determined variables are grouped. If the clustering is allowed to proceed to its logical conclusion, all entities will end up in one

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cluster (see Everitt (1980) for a complete review). The process followed in this particular research is described below:

- *Derive a random data set which exactly matched the real data set.* This was achieved by examining the detailed frequency counts of the real data, i.e.: looking at the number of responses in each answer category for each variable.
- *Generate a parallel random data set, specifying the same distribution of responses.* This meant that the underlying data structure was the same for the two data sets. What was different was that in the random data set there was not necessarily a relationship between answers to the questions given by respondents.
- *Use Pearson's correlation to on both sets of data* to identify interesting variables for analysis in the real data and check that there were no significant relationships in the random data.
- *Apply cluster analysis to try and generate segments on each set of data.* Ward's method was used. This is a hierarchical agglomerative approach, which successively joins cases or entities together on the basis of their similarity on certain specified variables. The demographic and satisfaction variables listed above were used in the cluster analysis.
- *For each data set, use an accepted approach to validate the resulting segments.* The three-stage process of Choffray and Lilien (1980) was selected for these purposes. This involves first, checking the analysis for outliers; second, using other clustering routines to try to generate similar results; and third, comparing the results with those achieved using random data.
- *Compare the output from the real and random data sets.*

The generation of a parallel random data was achieved without problems. The Pearson's correlation analysis of the real data set generated a number of significant relationships between variables. However, as expected, in the random data correlation matrix no significant relationships were identified. The next stage of the analysis, the clustering of the real and random data sets, yielded a solution containing six clusters (segments) in each case. The selection of this particular cluster level was based on a careful analysis of stress levels and is described further in Dibb and Stern (1995). The researchers found it surprisingly easy to build up profiles of typical members of each segment for the real and random data. While they might have expected to be able to do this for the real data, the randomness of the other data set meant they were, in effective, describing "virtual" people.

Other data set meant they were, in effect, describing "virtual" people. The fact that cluster analysis of the random data set had generated a solution was not, in itself, surprising. However, the researchers were confident that the application of accepted validation techniques would pinpoint the rogue solutions. In practice, the Choffray and Lilien (1980) approach adequately validated both the real and random cluster results, although the results for the real data were stronger. Further details of validation are provided in Dibb and Stern (1995).

These results raise a number of general questions for those who use multivariate analysis as well as highlighting more specific concerns for cluster analysis users. Although the results of the Pearson's correlation analysis indicated that it would be unwise to proceed with further multivariate analysis of the random data, someone, inexperienced in this form of analysis, might be unaware of the potential difficulties.

This example demonstrates the difficulties which await the unwary segmentation researcher. The content and orientation of the segmentation literature could usefully provide more guidance in such circumstances.

Assumption of no practical constraints on segmentation decisions

As part of a data collection exercise examining the use of segmentation in British businesses, this author interviewed a senior marketing executive of a European car manufacturer. The question concerned the characteristics of any segmentation approach adopted by the business. The marketing executive indicated that the business did actively segment its market and that this was achieved on the basis of car engine size. The resulting segments were large cars, upper-medium sized cars, lower medium-sized cars and small cars.

On first impression, the academic judgement about the value of this approach might be unfavourable. The comments of Curran and Goodfellow (1989, p. 23) are typical of the condemnation which might be expected. "Such approaches are popular because they are convenient, clear-cut, easy to implement and result in boundaries that are relatively stable over time. These factors should not, however, disguise the fact that such approaches are arbitrary and based exclusively on managerial judgement and intuition." Despite the underlying academic logic for this stance, it fails to recognise the size and characteristics of the constraints which managers face when making segmentation decisions. Perhaps this is why organisations continue to report difficulties implementing segmentation approaches (Littler, 1992; McDonald and Dunbar, 1995; Waldo, 1973). Some authors have already identified that the academic literature underestimates the problems of "real-world" applications (Saunders, 1987) and focuses too little on implementation issues (Hooley, 1980). Others have shown that practitioners simply avoid these difficulties by using intuition rather than systematic analysis to identify segments (Wind and Cardoza, 1974).

Perhaps the greatest shortcoming of the academic segmentation debate is that it appears to operate from a stance of "segmentation utopia". The underlying assumption is that businesses' existing segmentation schemes can be scrapped to allow the analysis to begin afresh. Of course, this is far from the practical reality. Even assuming that the resources are available to undertake the necessary analysis, the planning and execution of segmentation exercises are constrained by a number of practical and operational concerns (Young *et al.*, 1978). The marketing executive from the car manufacturer discussed above, was well aware of the potential shortcomings of the simple segmentation approach which the business had adopted. However, the company knows that it must operate within the structure recognised by the rest of the industry. A key factor is that car engine size is the main characteristic on which fleet car buyers make their purchases. This does not mean that engine size is the only variable that can be used to segment the market. Indeed, the business was actively seeking ways to segment within and between the engine-size structure. For example, a project was underway to examine the requirements of a potential female executive segment.

While the research literature has been slow to consider issues relating to segmentation implementation, certain practitioner-oriented publications, often in the business-to-business area, have tackled the problem with more gusto. For example, after finding that marketers judge segments on the basis of appropriateness and ease of implementation, Wind and Cardoza (1974) devised a two-stage approach to industrial marketing segmentation. This macro-micro approach, which is illustrated in Figure 2, uses organisational characteristics to develop macro segments and then identifies micro segments on the basis of decision-making unit (DMU) characteristics. The underlying principle is that existing groups or sectors can be further and simply sub-divided to reveal sub-segments which are more homogeneous than before. A full review of this and subsequent industrial segmentation models is provided by Bonoma and Shapiro (1984).

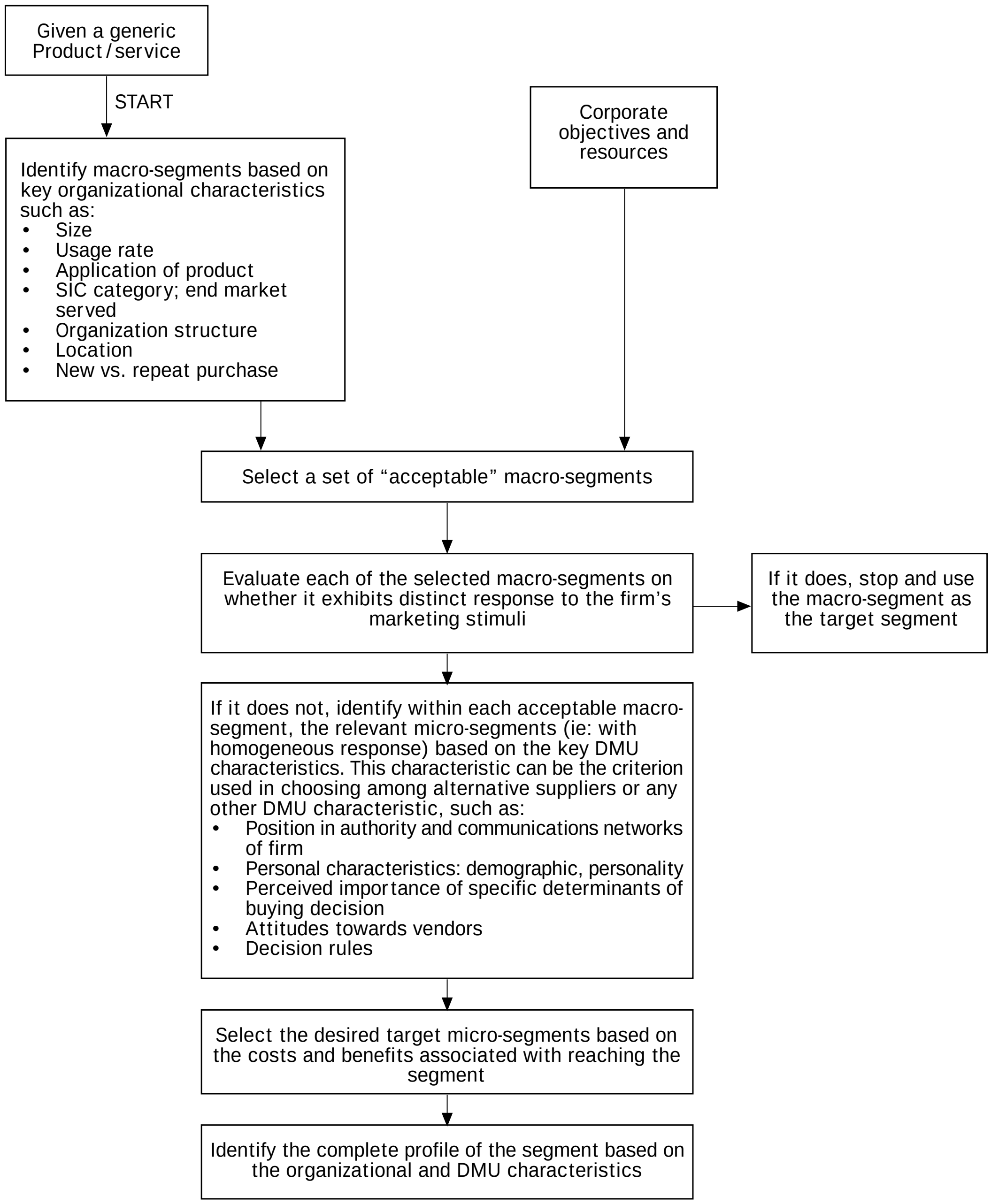
An illustration of the application of the macro-micro approach is provided below. The case describes how a construction equipment manufacturer re-segmented its market, using its existing segmentation scheme as the starting point. The data used in this example came from a range of published secondary sources combined with interviews with senior marketing personnel and distribution channel intermediaries at several large manufacturers. A more detailed overview of the research can be found in Dibb (1997).

Re-segmenting the construction equipment business

The agricultural and construction equipment business has traditionally sub-divided its markets on the basis of country, product and customer type. The industry produces a wide range of machines that excavate, tunnel, carry and load on sites of all types. Product types include everything from crawler excavators, backhoe loaders and telescopic handlers to tractors, harvesters and skid steer loaders. Over time, product portfolios have grown as manufacturers have gradually added to their product groups.

Following a period of re-organisation, a key player in the industry decided that a greater emphasis on marketing would be beneficial to its business. A marketing planning programme was instigated to help instil the principles of good marketing. Part of this process required the marketing and product managers to collect more information about their key UK and European customers and competitors. Early results from this analysis indicated that the current approach to sub-dividing the markets in which the company operated was not delivering the benefits that might be expected. In short, applying country, product and customer type groupings did not lead to homogeneous groupings of customers. Instead it resulted in an unmanageable number of customer groups. For example, in each country the company was selling six main product groups. Within each of these product groups was a range of between three and eight machines. The potential customer groups for the company included plant hire, extractions, civil engineering contractors, tool hire, house building, agriculture, waste disposal, landscaping, public utilities and local authorities, earthmoving and manufacturing services. Although the resulting multi-celled matrix reflects the industry structure, it is not indicative of customer needs and buying behaviour. This is partly due to how the marketing function was organised. A different marketing team managed each

Figure 2
the macro-micro model of industrial market segmentation



Source: Y. Wind and R. Cardozo, (1974).

product group, with individual team members dealing with key customer groups throughout the company's territories. This meant that customers buying a variety of products must often deal with a number of different marketing teams.

A further difficulty related to the organisation of the dealership network. Dealers had little incentive to develop expertise in all areas of the portfolio or in all customer types. The tendency was for dealers to "cherry pick" the largest customers, providing excellent service for professional fleet buyers, while ignoring the smaller customers. Some dealers also focused on a limited number of products, which were known to be easy sellers, and for which the margins were high. The result was that some customers had to "shop around" to buy different pieces of equipment. At a time when the business was attempting to expand its portfolio into new areas, this was not an encouraging state of affairs.

The answer lay in a thorough analysis of customer needs and buying behaviour. This revealed that certain customer types tended to buy certain sizes and types of products and that it would be more logical to organise products in terms of their size. The company moved away from its strict product boundaries to launch three new divisions dealing with large, medium and small equipment. This had two benefits. First, it highlighted the fact that selling very large equipment, such as crawler excavators, through the dealers, was not particularly efficient. Most dealers were unable to hold stock of this machinery, so delivery times suffered. The company therefore decided to encourage sales of this equipment direct from the factory. The second benefit concerned the sale of smaller equipment. The customer research had shown that those buying the smaller equipment usually wanted to buy a number of different machines. Yet dealers who regarded them as too small to bother with were ignoring these customers' needs. In order to deal with these problems, the company launched a division specifically to cater for the sale of smaller equipment. The marketing efforts of a number of product groups were merged, and staff within dealership were specifically allocated and trained to deal with these particular customer needs.

Although this was not a heavily quantitative exercise, it was based on detailed analysis and did take a realistic view of the business' existing structure. This view was then used to build a more appropriate and simpler segmentation structure. As a result, the business was better able to develop marketing programmes which closely matched customer requirements. This had immediate beneficial effects for a range of product launches in which the business was involved.

Practical guidance for segmentation success

Managers undertaking segmentation analysis for the first time often express surprise at the lack of practical guidance and step-by-step approaches to help. This discussion begins by reviewing the kinds of questions which practitioners ask when carrying out segmentation analysis, then examines the extent to which available guidance matches up to these requirements. The following questions, which are typical of those asked by practitioners undertaking segmentation for the first time, are drawn from discussions with managers at several divisions of an industrial chemicals business.

- Is there a process that I can follow?
- Where should I start, and what data do I need?
- What should I do with the data? Do I need a statistics expert?
- What variables should I use to segment my market?
- How will I know if I have used the right variables?
- How will I know if I have reached a sensible solution with robust segments?
- What do I do with the segments once I have them?
- How will I know if my segmentation is effective?
- When will I need to change or update the segmentation?

Using these questions as a checklist, it is clear that there are three points in the process at which help is required. *Before* the project begins, there is a need to understand the sorts of factors that will contribute to a successful outcome. *During* the analysis, it is important to establish the qualities which emerging segments should exhibit. *After* the segmentation output has been finalised, guidance is needed about the criteria to use to appraise the attractiveness of the different segments.

The most commonly cited guidance is in the form of a simple checklist, which states that segments should demonstrate measurability, so that segment size and potential can be measured; substantiality, in order that segments are sizeable enough to be profitable; accessibility, so that customers in the segments to be reached; actionability, allowing segments to be served effectively with marketing programmes and; stability, so that resources can be safely invested (Kotler, 1994). This guidance is clearly aimed at managers *during* the segmentation process, insofar as it provides a checklist of characteristics against which emerging segments can be matched.

Help appraising the attractiveness of different segments *after* the segmentation process is complete, is also readily available. During the targeting stage, marketers must consider a range of internal and external attractiveness issues. This helps with decisions about whether or not to target particular segments. Marketing academics have devoted considerable attention to this important issue. This is reflected by coverage in market segmentation, portfolio management and competitive strategy literatures. Thus the segmentation literature has considered the question of resource allocation to particular segments in some detail (Frank *et al.*, 1972; Mahajan and Jain, 1978). For example, Abratt (1993) identifies the following attractiveness criteria: ability to reach buyers, competitive position, market size, expected market growth and market fit with organisational objectives and resources. De Kluyver and Whitlark (1986) provide a similar list.

The portfolio management literature, which explores the sharing of resources among an organisation's product portfolio, is also a useful source of ideas about attractiveness criteria (Hedley, 1977; McDonald, 1995; Morrison and Wensley, 1991). Matrices used to examine the balance between cash usage and cash generation, such as BCG and General Electric and the Directional Policy Matrix, usually apply some form of market attractiveness criteria, based either on univariate or composite dimensions (Wind and Mahajan, 1980). In the competitive strategy literature the question of market attractiveness is also considered. Porter's (1980; 1985) five force model of competition suggests that the threat of new entrants, the bargaining power of customers, the bargaining power of suppliers, the threat of substitutes and the jockeying for position among current industry players determine industry competitiveness. In many respects this is simply another way of expressing attractiveness criteria

The diverse range of attractiveness criteria in use is illustrated in Table II. This framework, which is adapted from the work of Abell and Hammond (1979), is taken from Hooley and Saunders (1993).

Guidance about the kinds of factors which contribute to segmentation success and which can be considered *before* the process, is perhaps the hardest to find. While many marketers accept that is it hard to conclusively prove which variables are responsible for success, it is surprising that so little help is offered regarding conducive organisational conditions. Particularly as for practitioners seeking the benefits of a segmentation approach, the value of practical guidance which improves the likelihood of success seems obvious.

Although there is a lack of quantitative research on the question of segmentation success factors, some qualitative contributions have been made to the debate. Well designed planning (Weinstein, 1987), commitment and involvement of senior managers (Engle *et al.*, 1972), choice of segmentation bases (Coles and Culley, 1986), readiness to respond to market changes (Brown *et al.*, 1989) and creative thinking (Weinstein, 1994) have all been cited as potential success factors. Haley (1984, p. 170) also provides a list of factors which includes:

- Clearly-defined objectives, with a focus on communications strategy rather than new products.
- Careful organisation, usually involving a multi-functional project team.

Table II
Framework of segment attractiveness criteria

Market attractiveness	
Market factors:	*Economic and technological factors:*
Size of segments	Barriers to entry
Segment growth rate	Barriers to exit
Stage of industry evolution	Bargaining power of suppliers
Predictability	Level of technology utilisation
Price elasticity and sensitivity	Investment required
Bargaining power of customers	Margins available
Seasonality and cyclicality of demand	
Competitive factors:	*Environmental factors:*
Competitive intensity	Exposure to economic fluctuation
Quality of competition	Exposure to political and legal factors
Threat of substitution	Degree of regulation
Degree of differentiation	Social acceptability and physical environment impact
Business strengths	
Current market position:	*Capability profile:*
Relative market share	Technological position
Rate of change of market share	Management strength and depth
Exploitable marketing assets	Marketing strength
Unique and valued products and services	Forward and backward integration
Economic and technological position:	
Relative cost position	
Capacity utilisation	

Source: Adapted from Hooley and Saunders (1993)

- Considerable up-front work, considering past research, promotion and market trends.
- Three-phase research design, where the second phase involves developing sensitive and reliable attitude measures.
- Implementation plans which, at a minimum, include testing and tracking studies.

In view of the costs associated with implementing new segmentation schemes, it seems likely that the question of success factors will receive more attention. In particular, there is a need for further research providing quantifiable evidence of the impact of segmentation and the role of success factors.

What can be done to reduce the chances of segmentation failure?

The benefits of following a plan for the entirety of the segmentation project are clear. Planning encourages the setting of clear objectives, so that marketers establish from the start exactly what they want to achieve from the exercise. This also increases the likelihood that measures will be designed to check that objectives have been achieved. A range of processes designed to help businesses plan their segmentation are available (e.g.: McDonald and Dunbar, 1995). Some of these take the form of books, others are presented in software format. Whatever the format, these processes should encourage the user to undertake a series of analysis, so that customers, competitors, business strengths and the wider trading environment are better understood. The results of this analysis should then be applied in the development segments, to make decisions about targeting and to determine positioning. These strategic decisions can then be used as the basis for developing appropriate marketing programmes.

Being critical about the quality of data and information is a vital part of any marketing strategy exercise. It is important to question the source of data used, as well as considering how and when it was collected. The method of data collection should be appropriate and robust and data which forms the basis of a segmentation analysis must be as up-to-date as possible. If the analysis of data is handled in-house, it is helpful to use tried and tested statistical packages. Software packages offering quick and easy solutions should be regarded with suspicion. The complexities of segmentation analysis mean that it requires a careful, methodical approach.

When planning the approach, it is important to think about segmentation in three stages: before, during and after. This highlights the questions which should be addressed at each stage. In particular, it is helpful to maintain an awareness of segmentation success factors. Although research in this area remains at an early stage, some broad guidance is available which can help businesses increase the chances of a successful outcome. For example, marketers should seek to establish inter- and intra-departmental commitment and communication before the project begins. As the relationship marketing literature has clearly demonstrated when co-operation is developed at an early stage, it often builds as the project progresses (Morgan and Hunt, 1994).

There may be circumstances in which it makes sense to "buy in" support from outside agencies. The value of a statistics expert has already been established. Sometimes businesses without internal expertise buy in support from outside agencies or management consulting companies. In view of the difficulties which the statistically unskilled can face, this may well be a logical step. However, even within agencies and consulting companies the level segmentation analysis skill is highly variable. It therefore makes sense to select organisations with proven expertise in this particular area of marketing strategy. In particular, beware of companies selling "off the peg" solutions. Consultants who appear to know what the segments will be before conducting any analysis, probably fall into this category!

Finally, as the macro-micro model for business-to-business segmentation illustrates, it is vital that a segmentation process is used which takes into consideration the current situation and operational constraints which the business faces. The output must be sensible, robust, but also meaningful in terms of these constraints. If these factors are ignored, it may be impossible or impractical to implement the segments which result.

Conclusions

Despite the well-documented benefits which segmentation offers, businesses continue to encounter implementation difficulties. This raises important concerns about the cause of these problems and how they might be overcome. These concerns have been addressed in this paper by considering three questions:

1. Is segmentation a good idea?
2. If segmentation is such a good idea, why does it sometimes fail?
3. What can be done to reduce the chance of failure?

There are many practitioner and academic publications which debate the merits of segmentation. Although problems of measurement and control make it difficult to quantify the segmentation benefits, many qualitative advantages are cited. These suggest that segmentation leads to a better understanding of customers, greater competitive responsiveness and more effective resource allocation.

Despite these apparent advantages there are many documented cases where segmentation has failed: that is, it has not resulted in a solution which can be implemented. Poor understanding of segmentation principles, inappropriately oriented literature and lack of practical implementation guidance are just some of the possible causes.

In order to overcome these problems, marketers need practical guidelines at three points in the process. *Before* the project begins they must understand the factors which will contribute to a successful result. The literature on these sorts of success factors is at an early stage of development. However, careful planning, commitment from senior management and clear implementation recommendations are just a few of the variables which are known to help. *During* the segmentation project it is important to clarify the qualities which emerging segments should exhibit. Kotler's checklist, which states that segments should be measurable, substantial, accessible, actionable and stable, is probably the best known. *After* segmentation is complete the question of segment attractiveness must be considered. There is considerable coverage in the segmentation, portfolio planning and competitive strategy literatures on this area.

Further research is needed to address the issue of segmentation success factors. In particular, this should address whether and how segmentation success can be quantified. To be useful to practitioners applying segmentation in the real world, this research must translate into clear and simple guidance on how to create the best opportunities for successful application. Related to this, it is necessary to consider the differing orientations of academics and practitioners carrying out segmentation. For practitioners in particular, the segmentation literature remains difficult to access. It is overly concerned with complex questions about quantitative analysis with insufficient focus on practical implementation questions. As marketing moves towards the millennium, a further bridging of the academic and practitioner divide would be a positive move forward for segmentation theory.

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