THE PROCESS OF MARKETING STRATEGY DESIGN -

AN ILLUSTRATIVE EXAMPLE FOR POST GRADUATE COURSES

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Submitted to the University of Cape Town
in partial fulfillment of the requirements
for the degree of Master in Industrial
Administration

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ABSTRACT

The marketing of academic courses is a topic receiving increasing attention - both in terms of academic interest and out of practical necessity. In this study an extensive marketing evaluation is done of a particular course - the Industrial Administration Programme (IAP) at the University of Cape Town. This example serves as the specific model used to illustrate the process of marketing strategy design.

The primary objective of this study is to illustrate how the principles of marketing strategy design may effectively be used to formulate a specific and detailed marketing strategy and plan for academic courses but particularly those at post graduate level. The illustrative example chosen is the Industrial Administration Programme offered by the Faculty of Engineering at U.C.T. Though the very specific nature of the research done into the IAP precludes the use of this study as a universal model for evolving a marketing strategy for academic courses, it does serve the function of acting as a guide as to how similar marketing problems may be approached. Part I describes the theory, process and procedures adopted to recommend the marketing strategy, while Part II describes in detail the specific plan suggested .

The marketing problem experienced by the example selected, seems typical of the general problems faced by academics in establishing new course ideas, and manifests itself in the fact that considerable difficulty is being experienced in regularly attracting sufficient delegates of the desired calibre. The IAP, which is a part-time postgraduate diploma and Masters course in the Faculty of Engineering, offers graduates in technical and scientific disciplines the opportunity to acquire specialized knowledge in Industrial Engineering. As part of this course the delegates are also exposed to numerous other subjects such as finance, law, accounting, etc. The dearth of suitable applicants for the 1981 IAP course forced the cancellation of that year's course and, in part, motivated the need to precisely define the marketing strategy to be adopted over the medium term.

Subsequent to an extensive literature search for appropriate methods, in-depth research was conducted on the needs and motivations of past IAP graduates. This group of past consumers of the IAP product was assumed to be representative of a particular target market, and the possible satisfying of the aspirations of this group were then considered in the light of the IAP type courses available.

Not only were the attitudes of the IAP graduates probed in considerable depth, as an aid to the establishment of the correct marketing criteria, but a critical review was conducted of all other academic courses which might be regarded as competitors of the IAP. Also considered were the various demands for IAP type products in the market place - this market demand comprehended both the demand of industry for the IAP graduate and the demand for the IAP itself by the potential delegate. Finally a process of market segmentation and strategic product positioning was undertaken which it was believed would effectively satisfy the needs of all components of the market.

In general terms it was found that the target market expressed a need to acquire, within a technical environment, a better appreciation of the process of the management of technical industry. This need was distinct from the Industrial Engineering concept envisaged by the University. The delegates saw the course as providing a Master's degree in the skills of technical management of industry, as opposed to a more generally orientated course such as an MBA. In the survey of the competitive environment it was found that opportunity exists to establish a course based on this principle - which provides a unique differentiating factor versus other courses.

Another important finding of the attitudinal research done was that the existing IAP course did not have a distinct product image or personality. As a consequence it was found that remedial promotional activities would be necessary in order to propagate the required image to all the components of the market.

On completion of this analytical phase comprehensive profiles were drawn up which, it was believed, would typify the future IAP delegate, as well as prescribing a modified concept of what facets of the IAP should be emphasized. In summary the physical attributes of the IAP product which it was found necessary to develop as part of the strategy were

- a technical management as opposed to a business management course
- run for and by technical people
- specifically designed for the needs of technical industry
- a Masters level qualification which is a logical progression for graduate scientists and engineers
- the major subject of the part-time course to be engineering management
- an elitist qualification of high standard aimed at the technical graduate at middle management level.

This course would be aimed at a target market which consists of graduates in engineering or science who wish to

- enhance career prospects
- facilitate the move into technical management
- acquire formal training in business subjects
- bridge gap in original technical training.

Based on these profiles the components of the marketing mix were evaluated and a marketing strategy and plan was constructed.

In Part II a detailed discussion is provided of specific ways of implementing this strategy. The advertising, promotional, product, and public relations tactics which could be followed, so as to effectively position the IAP in the academic market, are elaborated upon.

The study provides an illustrative framework based on which a marketing strategy could be developed, which will help to ensure that the IAP remains a unique and viable alternative for potential delegates. Within the financial and manpower constraints of a pure University environment it will be necessary to review the appropriateness of the strategies on a continuous basis. What is ultimately presented is a logical, but by no means unique, marketing strategy for the Industrial Administration Programme at the University of Cape Town.

Marketing strategy design is a process of logical research and critical evaluation of the marketing environments, and it is the highlighting of this process of strategy formulation which is ultimately of prime importance in this study. Certain unique problems associated with the design of marketing strategy for post graduate courses are emphasised in this illustrative study. It is hoped that the process adopted and techniques used may also be of benefit for marketing strategy design for other post graduate courses.

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CHAPTER I

INTRODUCTION

Over the past 15 years marketing has become a highly developed science throughout the world. Drucker[1] suggests that while marketing as a central function of an enterprize started in the middle of the 19th century at the International Harvester company, it was only in 1905 that the first academic marketing course was taught[2].(At the University of Pennsylvania). Since that time marketing as an academic discipline has probably grown at a rate in excess of the requirements of those who actively practice marketing. As stated by Prof J Simpson (Director of the Graduate School of Business at the University of Cape Town) "it is my belief that the link between academics and practioners is becoming increasingly tenuous".[3] It is therefore appropriate to consider that many of the academic institutions that teach advanced marketing concepts in South Africa do not themselves adequately market their particular products. In this study an analysis will be made of some of the ways in which marketing philosophies could be applied to help ensure optimum utilization of the academic resources available at an institution. This will be done by performing a detailed marketing strategy design, in accordance with marketing principles, on a particular course - the Industrial Administration Course at the University of Cape Town.

The gradual growth of the acceptance of the marketing function within the business community arose out of the development of analytical market research during the early part of this century. Gradually this base concept of marketing's contribution to the enterprize was expanded to include many more functional areas of marketing.

Marketing's most recent entry has been in the non profit section of the economy e.g. in the marketing of the services of hospitals, health care and education.

Currently American universities and colleges, troubled with declining enrolments are eager to try out marketing ideas in their admissions operation[4]. In South Africa the necessity for the major academic institutions to actively market their services has, in general terms, not really been felt since the demand for their services has continued to grow. In certain specific areas however, such as the natural sciences, enrolments have not been satisfactory. Additionally South African universities have increasingly been offering courses which are highly career based - such as the MBA degree. The resultant competition for the limited number of high quality participants available has forced a marketing related approach to be adopted.

"Marketing in the non-business environment (such as public or non profit sectors) does not require a new set of marketing principles, so much as a new and challenging application of these principles".[5] In this study an evaluation will be made of a specific case of non-business marketing - the design of an appropriate marketing strategy for the Industrial Administration Programme (IAP) at the University of Cape Town.

The development of a marketing strategy for this course will serve as a model which will be used to illustrate how the basic marketing principles may be utilized to market academic courses in the South African environment. Obviously marketing solutions of particular problems do not have much universality but it is a premise of this study that the process of strategy design does have some generality. Consequentally it is believed that this illustrative example will benefit not only the IAP course administrators but all academic disciplines, which might consider marketing their courses.

The evaluation of the marketing environment and opportunities available is generally done in two ways:

- firstly a marketing systems analysis that identifies and describes the major components of the Market which interact with each other in the market place for the product

- secondly a marketing process analysis which builds up the sequence of changes recommended to ensure an optimal utilization of resources, such that the marketing objectives are met.

This study sets out to proceed through both these analytical processes, using the Industrial Administration Programme as the specific example to highlight the general marketing possibilities available for all academic courses. As a consequence of this the study is presented in two parts. Part I correlates with the process of a marketing system analysis of the IAP; while Part II represents the logical process of building up specific recommendations for the marketing of the IAP course. Since Part II is specific to the IAP course it can in fact be considered as an appendix to the study conducted in Part I.

Since each marketing situation is specific and requires a particular analysis before worthwhile recommendations can be made it is not possible to present a generalized model of marketing in the non business sector that is meaningful. However similar situations may be approached in similar ways and it is this disciplined process which is illustrated in this study.

The sequence of presentation of material that is adopted in this study seeks to achieve the following main objectives

- to review the marketing and motivational principles which should be considered when developing a marketing strategy
- to probe the various techniques (with special reference to attitudinal market research) that may be used in a study of this nature
- to illustrate the process of hypothesis formulation and validation by critical evaluation of data
- to present the specific mathodology used and results obtained in the particular study of the IAP course
- to demonstrate what components of the IAP's marketing environment should be evaluated in the formulation of a marketing strategy

- to correlate all these inputs into a unified and logical package which will serve as a specific base from which a representative marketing strategy may be developed
- to construct a detailed marketing strategy for the IAP course.

The overall aim is to illustrate the process of marketing strategy design, but with specific reference to the IAP course of the University of Cape Town.

The specific nature of the study undertaken should not derogate from the overall validity of the marketing concepts utilized - the marketing principles and processes are universal but need to be analytically considered in the light of the particular problem being investigated. The linking and evaluation of the general principles in the light of the particular needs of the study area selected is a vital element of the marketing process, and it is this element which is emphasized in this study.

Before commencing the process of identifying the components of the marketing problem it is appropriate to review, in some detail, some of the general marketing concepts which will form basis for the specific study.

CHAPTER 2

SOME MARKETING AND MOTIVATIONAL PRINCIPLES

In essence the marketing conept is a process of "consumer orientation supported by integrated marketing with the aim of accomplishing the primary objective of the enterprize and, in the process leading to the greatest possible satisfaction of consumer needs[6]".

Marketing evaluations normally either consider a macro-marketing version in which an entire marketing system is studied to see how it interacts, or a micro marketing viewpoint in which individual units are examined within the overall macro system. These micro and macro systems operate within the overall marketing environment and it is this environment which ultimately shapes the marketing strategy to be developed. It is this totality of factors which needs to be considered on a planned basis before specific elements of a marketing problem may be addressed.

Before discussing some of these factors it should be emphasized that this theoretical discussions only refers to some broad principles of marketing appropriate to Part I. In the text of Part II, which contains the amplified strategies, the theoretical aspects of specific topics such as advertising, media selection and frequency, message development, public relations techniques, etc, will be presented.

2.1 MARKETING ENVIRONMENT

As an essential part of marketing system analysis it is necessary to analyse the interaction between the units which are part of the system. This is done on a macro basis and, in general terms the environment is bounded by factors such as the technological environment; the economic environment; the socio-cultural environment; the government environment; and the intellectual environment. Each of these environments interact with each other as well as the marketing units which form part of the marketing environment

Lucas[7] considers that the micro environment of the marketing units (which he describes as the decision-marketing environment) has to comprehend factors such as the

- the marketing objectives of the enterprize
- the marketing organization of the enterprize
- the marketing instruments and functions available
- the marketing ability of the enterprize

These broad principles are elaborated on by Kotler[8] who sees the micro environmental analysis being centered around an analysis of the organisation itself, the structure of the market; the task to be done; the competitive environment; and the consumer environment.

To a greater or lesser extent these environmental factors may be influenced by the marketing unit. In terms of marketing strategy design it is of more importance to be able to be aware of these environmental factors and ensure that the strategy development fully comprehends these environmental influences.

This state of environmental awareness is fundamental to the marketing concept of seeking to closely correlate the objectives of the enterprize within the needs of particular segments of the market.

In this study a distinctly micro system approach is adopted. The study of the environment in Part I predominantly concentrates on the external marketing environment, which is not directly capable of being influenced. Part 2 examines ways in which it is sought to communicate with elements of both the internal and external environment.

This process, sometimes known as environmental scanning, is vital to effective strategy design.

2.2 MARKETING STRATEGY DESIGN

Marketing strategy design indicates a logical and planned process of clearly defining and presenting a set of marketing principles and guidelines which will provide the skeleton which will be clothed with the detail of the study. Kotler[9] defines a marketing strategy as:

> "a consistent, appropriate and feasible set of principles through which a particular company hopes to achieve its long run and customer objectives in a particular competitive environment".

According to Abel and Hammond[10] business definition should be considered as the starting point of strategy design and furthermore that this definition of the business may take place in terms of customer groups, customer functions and technologies. (Various data bases such as the Profit Impact of Marketing Strategy (Pims) may be used in this definition process). The procedures to be initiated in this study will be a process of defining the business in terms of target markets, market segmentation and product repositioning - the task now is to demonstrate how this definition phase needs to be developed as part of the marketing strategy.

McCarthy[11] believes that in general terms designing a marketing strategy primarily consists of two phases, namely selecting the target markets and developing the correct marketing mix for the selected target markets. Consequently the target market selection procedures adopted in Chapter 8 are fundamental to the marketing strategy design, and need to be meshed into the overall marketing strategy. This process will include the selection of the specific market mixes which could relate to the IAP course.

The overall design of a marketing strategy is clearly explained by Lucas[12] and his exposition of the sequentual process involved will now be summarized. The steps involved include:

- an analysis of the marketing environment
- the identification and assessment of the marketing opportunity

- the identification and selection of the target market segment
- the formulation of marketing objectives
- the consideration of alternative marketing policies and strategies
- the development of the marketing mix
- the testing and revision of the marketing plan and programme
- the approval of the marketing plan and programme

It can be seen that these components of the strategic planning process all need to be explicity considered -

Before considering some of the particular types of marketing strategies that may be adopted it is of interest to emphasize that this study only considers part of the conventional strategic market plan. For example Abel and Hammond's[13] analysis of the planning process isolates four sets of related decisions :
defining the business;
determining the role of the business;
formulating functional strategies;
budgetting.

For a service item such as the IAP consideration of functional strategies such as manufacturing, or research and development is not necessary, while the budgetting and resource allocation problems need to be explicitly excluded from the scope of this study. If this exclusion were not done it is believed that the marketing principles which it is sought to highlight would be submerged by the administrative problems of the particular example selected viz the IAP course at U.C.T.

A consideration of the various types of marketing strategy has relevance since it is crucial in the process of bounding the market and setting the marketing objectives. The approach of Kotler[14] demonstrates how categorization can be used to evaluate marketing objectives for a concept such as the IAP. He describes four types of marketing strategies:

- the market leader strategy where the dominant objective is to remain number one and maximize market share. Possibly the marketing stance of MBA course at the University of Cape Town is an example of this type of strategy

- market challenger strategies where the objective is to compete directly against the market leaders and gain market share. Here, for example, the MBA course at the University of Stellenbosch may be seen as competing against the UCT course which had been established longer and had an established position in the market.

- market follower strategies are strategies where no attempt is made to challenge the market leader. While similar products may be on offer, confrontation on market share via say price wars is avoided. It is difficult to give an appropriate example which is relevant to the previous examples given - probably the MBL of the University of South Africa comes closest to illustrating this type of approach.

- market nicher strategies are generally adopted by smaller firms and are characterized by "the attempt to find or occupy market niches that they can serve effectively through specialization, and that the majors are likely to overlook or ignore".(15) The marketing strategy adopted by the IAP course could be representative of this type of strategy since the aim is, ostensibly, to concentrate on education for technical graduates only.

Some authors use the terms marketing strategy and marketing plans to indicate the same concept. In this study the approach is followed that the marketing strategy relates more to the set of principles and objectives, while the marketing plan embraces the specific development of proposals to achieve the objectives of the marketing strategy.

In summary the main benefit to be gained from the process of marketing strategy design is "to communicate a sense of direction to all parts of the organization and to identify the specific actions needed to prepare the entity for the long run".(16)

The identification of the specific actions needed involves identifying market segments, selecting target markets and clearly establishing consumer needs. It is therefore appropriate to examine these concepts in more detail.

2.3 MARKET SEGMENTATION

A primary step in the process of marketing strategy design is that of segmenting the market; McCarthy(17) defines market segmentation as "the process of isolating previously unsatisfied markets and designing a unique product for that part of the marketing grid".

Prior to 1930 most business firms believed that long production runs and mass production were critical elements of profitable operations, and consequently believed that the product range should be kept to a minimum. In the post 1930 period product differentiation became important whereby sellers stressed the differences in their products viz-a-viz their competitors, and introduced new features into their products to create points of differences to the entire market - also known as the process of market aggregation.

Currently another variable also receives attention - that of dividing the globular market into sub-markets which may have distinct consumers.

> "Market segmentation is the sub-dividing of a market into distinct subsets of customers, where any subset of customers may conceivably be selected as a target market to be reached with a distinct marketing mix."(18)

Many bases may be used to segment the market and the generalised aim is to establish a hierarchy of variables which influence the consumer when making a purchase decision. These variables include:

Geographic variables

Socio-economic variables

Demographic variables

Psychographic variables

Behaviouristic variables

For any particular product it may not be necessary to evaluate all of these variables when implementing a process of market segmentation. For example geographic variables may not be appropriate when considering a marketing strategy for the IAP if it is accepted that all other competitive products are also available to potential IAP delegates.

In the analytical research which was done, particularly with regard to the IAP past delegate's questionnaire the results yielded variables based on which a pattern evolved which could segment the IAP target market in terms of demographic and behaviouristic variables. It is these results which will mainly be discussed when the market is segmented.

Although the benefits of segmenting a market and concentrating marketing efforts in a specific area are clear, it is useful to consider Adler's[19] warning that it is easily possible to select the wrong segment or over segment. Over segmentation occurs when segments are isolated that have such a marginal differential that in real terms no consumer differences exist. This danger is especially inherent in the case of a product such as the IAP where the potential number of consumers is small and where the competitors are firmly entrenched.

Also the process of market segmentation is not a static process. Alan A Roberts[20] writing in "Business Horizons" states:

> "market segmentation suggests a continous policy of looking for differences, and the exploitation of these differences. Often they are quite marginal

and their exploitations may require imaginative thinking on merchandising and promotion".

Market segmentation performs a two fold function. Firstly it isolates those specific characteristics of the consumer which differentiate them from the broader body of consumers, and secondly highlights the needs and inadequacy of facilities or products for these particular consumers. This obviously is valuable when considering specific items which need attention as part of the marketing strategy for a product such as the IAP.

Once the globular market has been segmented the next phase is to select the appropriate target market which essentially defines the segment(s) on which marketing strategy will be concentrated. A particular firm might decide to satisfy the entire set of segments with one product; or develop a particular marketing mix for each; or decide to concentrate only on one segment. This last category of possible strategies is known as concentrated marketing and it is into this class that the marketing strategy for the IAP is likely to fall.

In summary a specific market segment needs to be isolated, based on approprite survey and research, for which scope exists to provide a tailor made product. The development of suggestions for the most appropriate target market and ideal product will be the substance of the IAP product profile to be developed as an illustration of the process of development of a marketing strategy for the IAP.

Whereas product differentation used to be considered in terms of the aggregate market only, it is now an important feature of the strategy design for the market segment selected. Lucas[21] defines product differentation as "performing a process which seeks to distinguish the product physically and/or psychologically from competing products in such a way that the biggest number of consumers will accept it as a different product". This process forms a substantial part of the consumer profile and product profile which are developed.

2.4 PRODUCT POSITIONING

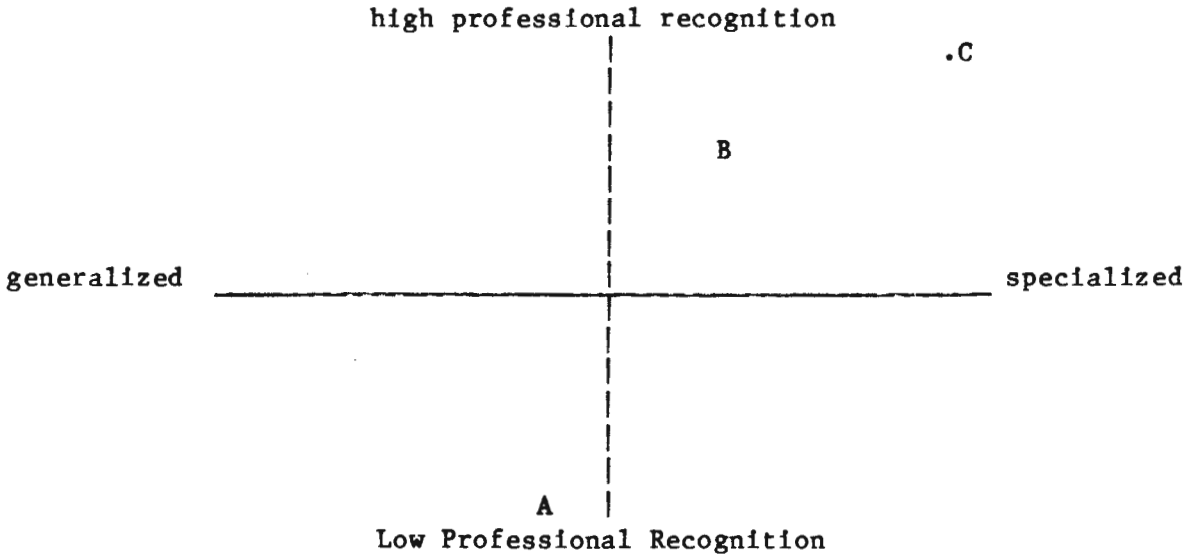
An important phase in the strategic marketing process is to develop an approach regarding the particular product that is to be marketed viz-a-viz its potential competitors. By this process we seek to direct consumer demand towards one product even though it may be quite similar to competitive products. One of the procedures used is to establish or reinforce a particular subjective picture that consumers may have, or acquire, of the product. (This process is variously called product image or product personality development).

To formulate a successful marketing strategy therefore not only requires an analytical segmentation of the market, and the selection of the target market but also an active evaluation of the competitive stance that needs to be adopted. This stance may be a combination of product, price, quality, image, availability, quantity, size, etc. and the product positioning process involves a selection of the most appropriate variables which will ultimately form the heart of the strategy.

The approach adopted in this study centres around positioning the product, rather than comparatively analysing factors such as relative market share and market growth rates which are used in the Boston Consulting Group's approach. The Boston Consulting Group approach essentially compares products in terms of the above factors and is primarily used to formulate a portfolio of products, brands, or product lines for a particular business.

Competitive positioning is often illustrated by means of a product space map where various product attributes are plotted and compared with the competitor. As an example the product positioning exercise might comprise generalized versus specialized masters degree courses and low versus high professional recognition. In Figure 2, as an example it may

Figure 2



be shown that it is desired to reposition a course from a generalized course with a very low professional recognition (position A) to a relatively specialized course with very high professional status (position B). On the same map the various competitors could be shown, for example point C could be representative of pure M.Sc. courses which are highly specialized and rate high professional status. Any number of criteria can be used in these product and brand positioning devices to clarify the product development strategy being developed.

The actual results obtained in the research done using the IAP as an example suggested that a substantial product respositioning exercise should be undertaken. Therefore the concept of product positioning appears to be an important element of marketing strategy design for academic courses.

To adequately segment the market, establish target markets and consider product and brand repositioning it is necessary to accurately access the characteristics of the components of the marketing mix.

This may be done in a variety of ways

- by analysis of previous work in the field;
- by market research;
- by additional surveys;
- by collation of existing data and literature;
- by interogative methods.

All of these data assimilation methods are utilized when the specific example of the IAP course at U.C.T. is examined.

Before describing these methods in more detail it is necessary to consider what is meant by components of the marketing mix.

2.5 COMPONENTS OF THE MARKETING MIX

A fundamental stage in the design of an appropriate study involves developing the correct marketing mix for the selected target market. The components of the marketing mix will be elaborated on in detail in Part II and it is therefore appropriate to first consider what is meant by the marketing mix in the particular light of marketing in the non-business sector. For the purposes of this review the particular case of the IAP product is used to illustrate the concept.

Many authorities reduce the variables in the marketing mix to four basic ones namely Product, Place, Promotion and Price. In this section these concepts will be briefly evaluated with respect as to how appropriate each element is regarding the IAP marketing strategy, and furthermore what stress will be placed on each element in the marketing strategy. These four variables have been isolated with particular regard to those undertakings which persue the profit motive. The marketing of the IAP product is however an example of non-business marketing where the basic marketing concept is still used but where the implementations of the principles in the development of marketing stragegies have to be creative. Four special characteristics of the non-business sector that call for special attention are identified by Weinberg and Lovelock (22) -

They deal with multiple publics and consumers
They have multiple objectives (not necessarily only the profit objective)
They provide services rather than physical goods
They are under constant public scrutiny.

The evaluation of the marketing mix variables should therefore comprehend the special nature of the marketing strategy. Product is probably the most important component of the marketing mix in the type of marketing strategy considered in this strategy. The product area is primarily concerned with developing the right product for the target market, and much of the research to be conducted will be concerned with establishing the most appropriate product profile and evaluating the natural target market for the IAP product.

The product component of tangible goods is concerned with features such as branding, quality, style, benefits provided: all of which features may be bolstered by ancillary product features such as service, installation, warrenty's etc. In the case of the marketing of academic courses the product component may be concerned with product features such as content, method of tuition, course name, duration of study etc.

Other product characteristics also need to be examined - these relate to the satisfaction of the consumer's needs and aspirations and the development of appropriate product characteristics and image to help satisfy these needs. These topics will be elaborated on in some detail when the research data on the IAP course is utilized to demonstrate the establishment of a desired product profile on which the marketing strategy may be based.

Promotion, as a component of the marketing mix, is concerned with communicating to the target market that the right product is available that will satisfy its needs. The essential features of promotion revolve around marketing communication which attempts to influence the knowledge, attitude and behaviour of the consumer to such an extent that the consumer will prefer the product or service to those of competitors. Promotion strategy involves utilizing sales promotion,

advertising and public relations in a managed and integrated plan such that the overall objective is achieved. It is these elements where the greatest stress will be placed in the marketing strategy. The market research undertaken on the IAP, for example, highlighted that delegates felt that the IAP was practically unknown and that difficulty was experienced in describing the IAP to outside parties. It is to alleviate this low profile and poor image that much of the promotion strategy developed is aimed. Under this heading of promotion also falls the utilization of advertising, sales promotion, public relations, and brochure design.

The market in which IAP and other academic courses are competing is one of monopolistic competition, which in the non business sector implies the continued communication of product differences (which may be small or large, real or psychological) with the result that competition is based not only on price but mainly on the perceived differences and benefits.

Price is another element of the marketing mix which is normally considered. In the non business environment in which the IAP strategy is being evolved price would not be a variable which is of great importance - primarly since few of the delegates have to make the price choice out of their individual financial resources. Also price is a marketing variable which is largely non determinable by any individual Faculty such as the Faculty of Engineering. In this context Price will also include the potential loss of earnings that the delegate might have to incurr. Furthermore the particular example of the IAP operates on a part-time basis, as do most of its competitors, and most of the delegates are sponsored by their companies. In these circumstances the price aspect of the marketing mix is not of prime importance - particularly as an individual Department's flexibility to directly vary the price is prescribed by the University as a whole. Finally it may be said that most University courses have relative uniformity of prices, once again demonstrating that the price element of the marketing mix is not of great importance when evaluating post graduate academic courses.

The final component of the marketing mix is that of Place which conventionally describes where, when and by whom the services are to be offered to the consumer. Since products such as the IAP operate in a highly specialized market the question of Place is determined largely by the location and method of operation of the various Universities. Quite obviously Place is a marketing tool that could be utilized by offering courses on a part-time basis, by correspondence, by attendance in modules of short duration, by reciprocity with other institutions etc. A consideration of all of these elements is necessary to adequately comprehend this component of the marketing strategy.

The interaction of product, phase, promotion and price yield a marketing mix which is designed to optimize the marketing units chances of achieving its objectives and also satisfying the consumer's needs in the process. It is therefore also necessary to understand consumer needs and motivations as they might effect the marketing strategy. These reviews are done in some detail since they form the basis on which the research, and in particular the attitudinal questionnaire design was done. Only by assessing and knowing the consumer - his characteristics, needs, motivations and expectations can an effective marketing strategy be developed.

2.6 MOTIVATION AND MOTIVATION RESEARCH

In all personal actions in which an individual has to choose between many alternatives his ultimate choice will be a combination of many diverse influencing factors. Some of those factors which guide the consumer towards choice are definite and quantifiable (for example, price, availability, or technical performance) while other factors are less specific and rooted in the needs, expectations and attitudes of the individual.

The development of a marketing and promotion plan for an educational service such as the Industrial Administration Programme should take cognizance of all factors influencing the marketing environment in which the course operates and in particular the driving force which impels an individual to the action of enrolling for the IAP. This driving force can be described as motivation. Motivation research is fundamentally a study of human wants and goals; the specific goals selected; and the pattern of behaviour selected to achieve these goals. Coupled with this consumer motivation is overlayed the consumers' expectations surrounding his choice of action, and the emotionality of the individual. The emotional motives in consumer choice are often further described as rational or irrational motives.

The establishment of definitions of concepts such as motivation and expectation is exceedingly complex since essentially they are a composite of consumer needs, attitudes, images and expectations. An indepth elaboration of the entire field of motivational and expectational theories is clearly beyond the scope of this study, yet use must be made of this type of knowledge in effectively developing a marketing strategy. Potential IAP delegates have certain motivations and expectations which compel them towards registering for the IAP and consequently an evaluation is presented of those sections of motivational theory and attitudinal research methods which are (and could have been) an intrinsic part of the development of appropriate consumer profiles. The main thrust therefore will be to highlight the essential characteristics of consumer behaviour and the particular research techniques which can be utilized to evaluate and describe the behaviour of the consumer.

2.6.1 Motivational Terms

Motives are of fundamental importance in consumer behaviour because motives, along with personal needs, give all consumer behaviour direction. In general terms motivation refers to a particular behaviour which has been instigated by needs and directed towards goals. A more specific definition of motivation is "it represents the

driving force within an individual which impels him to action. This driving force is produced by a state of tension that exists as a result of an unfilled need"[23]. This realization of an imperfect state manifests itself as a need which motivates the consumer to act. The performance of this positive act is directed towards some goal, these goals are the sought after results of motivated behaviour.

By utilizing motivational research an attempt is made to determine why a particular behaviour pattern is being followed. The terms embrace the entire area of human behaviour that may be related to (and have relevance for) the field of marketing, and consists of a series of techniques which are geared to uncover unconscious reasons for various actions or expose true reasons.

Motives themselves may be classified into different types of motives:

- Generic motives are classified as those types of behaviour which may be simply described in terms of a behaviour pattern. For example curiosity and greed are generically described motives
- physiological motives are concerned with actions which arise out of basic bodily functions such as hunger, comfort, etc.
- psychological motives primarily relate to motivations that derive from the mind and personality of the consumer for example security or prestige.

These broad descriptions may further be described as to what type of behaviour is being exhibited. Some of the more common descriptive terms used are:

- primary and secondary motives which describes the relative importance attached to each of more than one motive. The primary motivation will consequently tend to dominate the secondary motivation although all motivations will contribute towards formulating the final action.
- conscious and unconscious motives describes the degree of awareness existing as to the reasons for a particular action. Certain actions are rationalized actions, others are true actions, while the reason for other actions are sometimes not consciously known to the consumer.

- urgency motives can sometimes cause a distortion of a more logical sequence by the conumer's perception of the degree of immediate action necessary.

This brief resume of terms will help to clarify some of the explanations given regarding the motivational drives of IAP delegates, and the ascertainment of these motivations by means of the motivational research conducted.

2.6.2 Some motivational Concepts

Certain concepts of business behaviour have particular relevance to the study of the IAP delegate and these ideas will be discussed in this section within the context of the development of a marketing strategy for the IAP.

While evaluating the IAP consumer's behaviour it is necessary to comprehend the three major general principles of human behaviour as listed by Walters[24]. Firstly all business behaviour is motivated; secondly the form of motivated behaviour may either be learned or unlearned; finally all motivated desires do not lead to motivated action. It is this last principle which has most relevance to the study of the IAP where historically there appears to have been reasonable interest shown (as manifested by initial enquiries) which is not translated into actual registration for the IAP.

Two conceptual terms have particular relevance to any research which analyses the motivated behaviour of a group of highly educated consumers. These are homeostasis and dissonance.

Initially the term homeostasis implied the maintenance of a stable equilibrium in a system and was particularly used in a biological and chemical sense. Currently, the term is used to indicate an attempt to maintain a level comparable to previous levels. With regard to a group of professional people, all of whom are subject to abnormal competitive pressures, there could be a motivated tendency to retain a level of achievement equivalent to the majority of the peer group. The attainment of additional post-graduate qualifications and skills by further study is becoming a more commonplace event and in behavioural terms can serve as a form of homeostasis.

The concept of dissonance is closely allied to homeostasis but refers more to the tension, in the form of dissatisfaction, discontent etc. which creates a motivated behaviour to reduce the dissonance. More succinctly, homeostasis is the desire to be at equilibrium; while dissonance relates to the driving force creating an imbalance in the first place.

Cognitative dissonance refers to any non-consistent mental attitude or perception. Two base hypotheses regarding cognitative dissonance are normally presented:

- the existence of dissonance, being psychologically uncomfortable, will motivate the person to reduce the dissonance
- when dissonance is present the person will actively try to avoid situations likely to increase the dissonance.

The above thoughts have relevance to the particular group of consumers to be studied since, to a large extent, they have already exhibited behaviour which is strongly motivated. They have already obtained degrees and this has resulted in the evolving of a select group of potential consumers. The competitive pressures of the industrial, business and social environment may make the motivational concept of dissonance and homeostasis of importance in establishing true motives and needs of the consumers such as those for academic courses similar to the IAP.

In considering the IAP delegate's motivations thought was also given to two particular hybrid concepts - that of differential and dual motivations of the delegates.
In the analysis of a conventional consumer product it is likely that motivation research may reveal a dominant motivation amongst proven consumers, and this fact may be utilized to formulate a specific approach to a marketing problem. In an analysis of the motivations of engineers and scientists to enrol on a IAP course it is likely that distinct, and contrasting, motivation segments may be found. For example, a high proportion of delegates describe their motivation as

attaining the ability to become more effective engineers and engineering managers, while an equally high proportion indicated that they wished to move away from engineering into general management. These market segments may be diametrically opposed and result in a complex structuring of marketing strategies - the term differential motivation will be used to indicate perfectly logical motivation and goals but which have the effect of drastically changing the product motivation profile.

It was also found that many delegates indicated a dual motivation - these motivations may be rational or irrational. An example of the use, in this context, of the term dual motivation would be somebody who wishes to obtain a masters degree and who also wishes to get exemption from army training and/or escape a discordant household. These motivations are not considered to be examples of primary and secondary motivations in that no predominant influence manifests itself in this case.

Differential and dual type motivations have a place in all studies of motivation - however, it is suggested that in the particular area of analysing motivations of a particularly logical group of people, cognizance should be taken of a greatly increased probability that ostensible/obvious motivations could be overlayed by equally important "irrational" motives or that contrasting primary motivations may appear in the same individual or group.

2.7 EXPECTATIONS AND NEEDS

When analysing motivations and attitudes of consumers, it is also of importance to gain an insight into two other characteristics which will influence consumer choice viz. needs and expectations. Need refers to a consumer's realization that an imperfect situation exists and that, therefore, there is a difference between "what is" and "what should be". Expectations refer to the beneficial gain that the consumer expects to flow from his choice of product and consequently is clearly associated with the goals of the consumer.

It is not appropriate in this brief resume to detail all the intricacies of needs and expectation theories, particularly as many of these theories have been developed more particularly as an adjunct to more effective management. It is probably useful, however, to list the following salient general points regarding needs, goals and expectations:

- needs may be primary and/or secondary
- goals are the sought after results of motivated behaviour
- needs and goals are interdependent
- needs and goals are constantly changing
- most needs are generally never fully satisfied
- new needs emerge as old needs are satisfied
- success and failure influence goals and expectations
- failure to achieve a goal may result in frustration and/or rationalization
- consumer behaviour is often designed to fulfil more than one need ("multiplicity of needs")
- motives cannot be inferred from behaviour
- an individual consumer normally has a hierarchy of needs
- effective product posistioning can be achieved if the hierarchy of needs is reliably ascertained.

These generally accepted principles form the starting point of most of the theories which deal with needs and expectancy. In the main these theories have been derived primarily to explain those factors which motivate man in his working environment. Since there are many similarities with consumer needs and expectations, examples of the better known theories are summarized to see if any benefit may be obtained from the utilization of these theories in the formulation of a marketing strategy.

Maslow's Theory establishes a hierarchy of needs ranging upwards from phsyiological needs through safety needs, social needs, esteem needs, and self actualization needs. These last two needs could be prime motives in our study area. Maslow's theory is one of need deficiencies and implies a selection of the next appropriate need on a sequential

basis. Once a need is satisfied, then the next need assumes more significance to the consumer. Morgan & King (25) describe Maslow's theory as one of self actualization of actions satisfying needs.

Expectancy Theory. "Expectancy theory predicts that an individual will generally be a high performer when (a) a high probability is seen that efforts will lead to high performance (b) a high probability is seen that high performance will lead to outcomes (c) the individual views these outcomes to be, on balance, positive."(26) There is considerable evidence that central motives for most managers are for achievement, self actualization, power and status, and it is possible that similar motives could be present in IAP delegates. Expectation Theory involves a conscious selection of goals, and the isolation of which goals represent important elements for the typical IAP consumer forms an important part of the marketing strategy design. Consequently the 3 major elements of Expectancy Theory as listed above, have been incorporated as specific questions in the questionnaire (See Appendix 2) to past IAP delegates.

Porter and Lawler's Theory. This theory is also based on expectancy theory of motivation and implies that individuals are motivated by future expectations based on previous experience. In terms of consumer behaviour little difference exists between the Expectancy Theory and Porter and Lawler's Theory, except that more specific projections of future benefits anticipated needs to be ascertained - this was comprehended in the questionnaire design.

Relevance to Study Area

As mentioned above, the theories listed have been derived primarily to explain those factors which motivate man in his working environment. These theories may also be applied to the field of consumer behaviour and it would seem as if they could be usefully applied to this study of the IAP course and the formulation of a marketing strategy.

In essence, many of the needs commonly isolated in management theories (such as need for self actualization, esteem needs, egoistic needs, social needs, etc) may also be motivating factors in the IAP study area

and hence should be strong determinants in the design of the questionnaire and the formulation of an IAP marketing strategy.
The purpose of highlighting the topic of needs and expectations is to ensure that full cognizance is taken of these aspects when devising the questionnaire to be sent to IAP delegates.

2.8 CONSUMER BEHAVIOUR

Previous sections have concentrated on the consumer as an individual, and the various aspects of the individual's behaviour have been discussed. In more general terms we are seeking to define a group of consumers in terms of the synthesized behaviour of an ideal consumer - we, therefore, also need to consider the group of consumers as a whole and their group dynamics and interactions. The various group influences will not be detailed further except as they relate to consumer decision making.

An in-depth appreciation of consumer behaviour facilitates the development of successful marketing strategies. "An awareness of the consumers predispositions and needs and present attitudes towards the product enables the marketer to design an effective marketing mix, to favourably influence the consumer to buy his product."(27) An understanding of the variables that affect behaviour permits prediction of anticipated behaviour and the development of strategies designed to achieve favourable results.

Before considering some of the generally accepted principles of consumer behaviour and decision making, it is relevant to stress that motivation research and behaviour theory have as a premise the rational consumer, cognisance should be taken of both "rational" and "irrational" motivations when evaluating the IAP delegate.

"Much of traditional consumer motivation research is based on the principle of rationality as conventionally understood in economics viz that the consumer carefully considers all alternatives and chooses the one that gives the greatest utility (i.e. satisfaction)."(28) In a

marketing context, rationality implies that the consumer will select goals based on totally objective criteria. Obviously the assessment of satisfaction by individual consumers will be highly personal and based on the individual's own needs. What may appear as irrational to an outside observer may be perfectly rational within the context of the consumers own psychological field. On this basis many researchers into consumer behaviour declare that no merit exists in making the distinction between rational and irrational motivation.(29)

As an example, when analysing an academic course such as the IAP, it is possible that many of the primary motivations may be described as irrational in the context of the course aims. For example, it could be found that a motivation may be to obtain a Master's Degree from U.C.T. and the particular course chosen would not be an important factor. Such behaviour, in the light of the construction of a marketing strategy, may be considered irrational (or more accurately illogical) but is nevertheless of vital importance.

When considering the universe of IAP graduates it must be observed that, by background, they should form an exceptionally logical and rational group. As such many apparently irrational motives will have a high degree of logic attached to them and these "irrational" motives could be a determining feature of the ultimate marketing strategy. (In essence this is a process of rationalization of the chosen action). The goal of the motivation study will, therefore, be to ensure that both 'rational' and 'irrational' motives are ascertained and are given the requisite prominence in the formulation of the marketing strategy.

Some principles of consumer decision making themes were considered with the aim of establishing whether any formalized basis could be established as a guide or reference for the questionnaire design stage. Section 2.8.1 briefly discusses these theories.

2.8.1 Consumer Decision Marketing Theories

In general terms, a decision involves the selection of an action from two or more alternate choices. Decisions are made, in a marketing sense by the consumer, and 3 simplistic models of the consumer have been developed which seek to categorise him as distinct types of consumers. These models represent man as:

"Economic man" - the rational decision maker in an idealized environment

"Passive man" - a pliable creative who may be moulded by marketers

"Problem solving man - an active seeker of information to enable him to make satifactory choices from alternatives.

In terms of the IAP course the "problem solving man" model is likely to most accurately describe the consumer behaviour of the group.

Simple models of consumer decision making generally embrace the concepts of an input of marketing data, which is followed by the processing of this data and an output which reflects the decisive acts made by the consumer. In terms of this model the designs of a marketing strategy for the IAP would attempt to optimize the marketing data input based on the elements identified as important in the attitudinal and motivational research. The processing stage would therefore be facilitated since the input received by the IAP delegate would accurately mirror his attitudes and motivations. The output is the desired action of registering for the IAP course.

Other theories of consumer decision making, such as the McNeal [30] model, vary about these data processing analogues but depend markedly on the assumptions made regarding the nature of man, his group environment, and the type of product. Essentially, however, theories of consumer behaviour attempt to isolate the components of consumer decision making and relate them together with the economic, psychological, social and

cultural concepts into an easily understood framework. The basis of formulating an effective marketing strategy relies on clearly understanding the IAP and delegates and the task is to isolate these components.

Most of the consumer behaviour theories that have been developed relate to consumer and industrial products and hence considerable attention is given to factors such as brand, multiple alternatives, numerous consumers etc. In the formulation of the IAP strategy, which may be classified as a service product, the intrinsic elements of the fields of motivation research and consumer behaviour as outlined above must, nevertheless, be comprehended at all times.

In particular, the IAP product is different in many respects from conventional products; for example, we are dealing with a highly defined group of consumers purchasing an expensive item which is not easily attainable without considerable effort. Consequently, it would not be prudent to try to superimpose the detail of the various input-processing-output theories of behaviour onto this specialized product. However, as mentioned, it is of importance to comprehend the elements of the theories in an attempt to accurately identify the real IAP consumer needs, motivation and behaviour profile.

The establishment of a model to analogue the particular consumer behaviour exhibited by IAP delegates is therefore valuable since:

- a framework is provided for research
- researchable hypotheses can be generated from the model
- research findings on individual components can be more easily welded into an integrated whole
- reasons can be provided for the interactive effects of the ascertained motivations.

To facilitate the design of the IAP postal questionnaire, the interpretation of the data received from this questionnaire, and the development of this data into a composite marketing strategy it was

decided to use an established model of consumer behaviour. This model could then be used as a guideline for the correct framing of the questionnaire. The Engel, Kollat and Blackwell model of the consumer decision process formed the matrix for the development of the various themes.

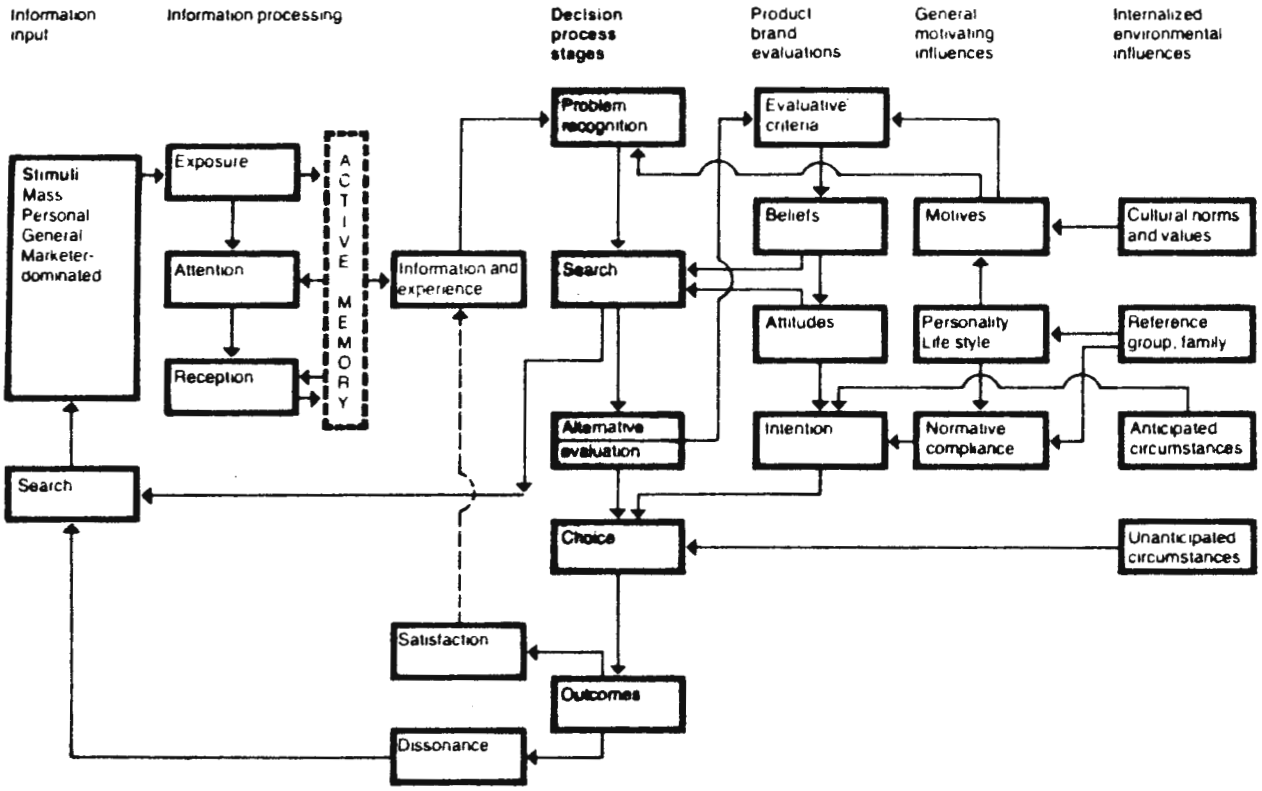
2.8.2 The Engel, Kollat and Blackwell Model

The EKB model is a sophisticated representation of consumer behaviour and has as its foundations 16 equations each of which represents a researched truism, e.g. attitude towards a brand is a direct function of stored information, experience and evaluation criteria. The EKB model is represented diagramatically in FIGURE 1. The verbal description of 'attitude' is readily seen in the diagram. In a similar way the flows and interactions of all 16 variables may be traced. Consequently a pictorial representation of the interrelationships is built up, and framework is developed which sequentially shows the decision making process undertaking by a consumer.

Since the EKB model is being used as the theoretical framework for the compilation of the questionnaire it is important to isolate these particular elements which would be specifically relevant to the IAP questionnaire design. This questionnaire will probe the consumer's decision to enroll for the IAP. These elements are considered to be: information input and processing; comparative evaluation; general motivational influences; career and personal influences; and the making of the decision. It can be seen that these elements are modifications of the broad classes shown in the diagramatic representation of the EKB model.

It is inappropriate to describe the EKB model in detail since the intention is not to validate the EKB model with the results of the questionnaire, but rather to use the model to ensure that all facets of consumer behaviour are comprehended in the quesionnaire design. It is, however, appropriate to highlight the core of the EKB model which is the decision making process. (Shown as the central colomn of Figure 1).

FIGURE 1



THE ENGEL, KOLLAT AND BLACKWELL MODEL OF CONSUMER BEHAVIOUR

This decision process has 5 sequential steps viz. :

- Problem recognition
- Search
- Alternative evaluation
- Choice
- Outcome

On attaining the outcome stage the consumer may either achieve satisfaction or dissonance. In the case of dissonance the search phase could probably be resumed if the choice made was not to register for the IAP.

Each of these steps formed a readily identified nucleus for the type of questionnaire design necessary for a relatively sophisticated group of consumers performing an extensive problem solving exercise before making their choice. Each of these steps in turn rceives inputs form a variety of sources all of which, however, reflect the interaction of the consumer with his particular environment. (Some of these other influences such as the competitive environment, and the demand for engineers are discussed in later Chapters.) It is also relevant to note that quite often each of the sequential stages depicted in Figure 1 receives the cumulative effect of the previous influences. For example, "motives" in turn affects problem recognition, then search, and finally choice.

It is ultimately the decision making process that will form the nucleus of the formulation of the IAP marketing strategy, and consequently this core element of the EKB model received a high priority in the questionnaire construction.

In conclusion it was of interest to compare the EKB model to a hypothetical IAP delegate's enrolment decision to ensure that the model chosen matched the research being undertaken.

actively Search for alternatives. This Search phase could be to acquire brochures on courses, consider changing sphere of employment, discussing problem with colleagues, etc. Gradually, if the motivation is still there, the Search for information and alternatives turns into an Evaluation of these alternatives. Consideration is given to firstly the broad categories of change, e.g. should he "specialize in pure technical engineering" or "decide to acquire management expertise by further study". Secondly the particular alternatives within these categories are evaluated for example if the further study category is selected then a more detailed evaluation is made of, say, the MBA and the IAP. Finally a choice is made whether to study further and, if so, for what degree. The sequences shown by the EKB model therefore closely correlate with the pattern of consumer decision making and is a succinct representation of the events that actually take place.

It can thus be seen that the EKB model is appropriate for the evaluation of the motivations of the IAP delegate, and provides a good theoretical framework for questionnaire design and evaluation.

2.9 SUMMARY

This chapter has described those important features of marketing and behavioural theories which have relevance to the accurate formulation of marketing strategy for academic courses in general but with particular reference to the IAP course at the University of Cape Town. As previously illustrated the utilization of this theoretical background into a marketing strategy design requires a flexible and creative approach but which is nevertheless bounded by the generally accepted principles of marketing theory.

Based on the theoretical background presented in this Chapter a specific evaluation will be made, in the balance of Part I of the IAP course at U.C.T. The example is used to illustrate how an in depth process of evaluation of the marketing environment may be made as preparation for marketing strategy formulation.

From this point on it will therefore be assumed that the objective of the study is to design an effective and consistent marketing strategy which will assist in ensuing the long term development of the Industrial Administration Course at U.C.T. The next Chapter will describe this course and its development, as well as an outlining why the IAP provides a good example of the need for planned marketing strategy development.

CHAPTER 3

BACKGROUND TO STUDY

3.1 INTRODUCTION

The first Industrial Administration Programme commenced at the University of Cape Town during February 1976 with the fundamental objective of improving productivity in industrial enterprizes in South Africa. The Programme was principally concerned with guiding technical people towards increasing their general management and production management capabilities.

During the period 1976 - 1980, 87 graduates completed the Graduate Diploma in Industrial Administration while 8 other delegates obtained the Diploma in Industrial Administration. The nature and structure of the Programme has evolved over this period and has now reached a sufficient state of maturity to bear careful analysis of what has been achieved and whether the objectives of the Programme are being met.

Late in 1980 it, however, became apparent that insufficient applicants of the required degree standard were being attracted to enable the 1981 course to commence in February. After considerable discussion it was decided to postpone the commencement of the 1981 course until later on in the year - provided that sufficient applications had been received by mid 1981. Subsequent to this it was decided that no IAP course would be offered in 1981.

This state of affairs was of great concern both to the University and to graduates of the Programme and the necessity of critically reviewing the Industrial Administration Programme in the context of its place in the education system became imperative. This study, besides serving as an illustrative example, is prompted by the motivations of seeking to ensure that the product currently being offered by the University is appropriate to course objectives and ensuring that the prospective

applicants' motivations are fully comprehended in the product design, promotion and presentation. Intrinsic in this is a process of evaluation of the validity of the course objectives in the South African market.

Before elaborating on the reasons for undertaking this study, as well as detailing the Objectives of the study, it is appropriate to review the Industrial Administration Programme itself.

3.2. HISTORICAL REVIEW OF THE IAP

The first moves towards establishing an IAP type course at the University of Cape Town were made by Professor R.K. Dutkiewicz in 1973. Professor Dutkiewicz's practical expertise in industry had indicated a definite need amongst recently graduated engineers for a broader appreciation of both industrial engineering techniques and the interelationship of the technical sector with the rest of the enterprize.

In April 1973 the first formal approach was made to the Post-Graduate course sub-committee of the Engineering Faculty motivating the establishment of an Industrial Administration course at UCT. In addition to outlining the needs of industry for such a course the application also suggested that it was necessary for the course to be held at post-graduate level (so as to build on the academic disciplines and expertise already acquired), and also that it should be aimed at lower to middle management. The application was supported in principle by the sub-committee, approved by the Engineering Faculty and forwarded to the Committee of Deans. Finally in October 1975 the course was approved by the Senate and Council of the University of Cape Town. Consequent upon this final approval it was decided to offer the first IAP course in February 1976.

No major objections were made to the establishment of the IAP course. The Public Administration Department did, however, query the use of the word 'Administration' in the course title. This objection was speedily resolved once the full curriculum of the IAP was discussed with the Public Administration Department.

A more serious objection to the IAP was raised by the Graduate School of Business in September 1976. The first IAP course had been highlighted in the Principals Circular and Professor Feldberg, on behalf of the Graduate School of Business, formally approached the Department of Mechanical Engineering. Professor Feldberg was concerned that a Master's Degree could be conferred after a limited amount of course work in each of the various subjects attempted. Furthermore, the IAP thesis could deal with subjects such as "Human Relations", or "Management", etc. where it was probable that the delegate had little expertise or depth of knowledge in that particular field. After discussion the Graduate School of business withdrew its objection when the following principles were clarified :

- the prime emphasis of the course would be towards Industrial Engineering and the vast majority of the theses to be submitted would be in this area and the standards controlled by the Engineering Faculty.

- where delegates were permitted to submit theses in other fields the theses would be evaluated and supervised by experts in that particular field, and not by the staff of the Department of Mechanical Engineering. Hence a high standard would be maintained irrespective of the subject chosen, and in this case it was the IAP delegate's responsibility to acquire the necessary knowledge by study and research.

During the years that preceded the actual introduction of the IAP, it was made clear by the General Purposes Committee of the University that the course had to be self funding through its fee structure. Consequently, the tuition fee had to be set at a relatively high level to satisfy this demand. (During 1980 the tuition fees were R870 per annum for the part-time course). In 1978 it became apparent that the ideal of complete financial self sufficiency would not be possible and a portion of the post-graduate subsidy was made available by the University to the Department of Mechanical Engineering to help contain the necessary fee increases.

Table 3(1) illustrates the number of delegates who have attended the various IAP course during the period 1976 - 1980.

Table 3(1)

Initial year of study	Delegates	Graduate diplomas awarded	Diplomas awarded	Masters awarded
1976	20	17	1	6
1977	15	11	2	3
1978	23	15	1	4
1979	17	13	0	1
1980	20	18	1	0
TOTAL	95	74	5	14

It may be seen that generally the course was favourably received by the University as evidenced by its relatively easy approval by the Administration. Also, the establishment of the IAP course was seen by all parties (delegates and academic staff) to be providing a very real service to both industry and the graduate engineer. As a result of this enthusiasm, and despite the low key promotion of the course, a considerable number of delegates registered for the IAP course over the period 1976 - 1980.

During this period the primary method of advertising was sporadic insertions into the local daily newspapers combined with trial inserts into the S A Mechanical Engineer. While accurate statistics have, not been kept by the Department on the responses received to the various advertisements, the Department's observations regarding the effectiveness of these advertisements had indicated that the response has been erratic and non-specific. A more detailed analysis of the advertising and promotion policy followed over the period 1976 - 1980 will be presented in later chapters.

3.3. CURRENT STATUS OF THE IAP

Only 7 applications from graduates were received for admission to the 1981 Industrial Administration Programme. After considerable debate it was firstly decided to postpone the announcement of the course to June 1981. Eventually, however, a further decision was made to re-introduce the IAP course in 1982, providing sufficient delegates of an acceptable standard applied.

During 1981 therefore both the Industrial Administration Programme and the concept of education in Industrial Administration in South Africa were in limbo. Whether they could be re-established largely would depend on the response achieved to advertisements for the 1982 course.

Since it was apparent from the favourable response received between 1976 - 1980 that the principal of providing further education in Industrial Administration to graduate engineers was widely welcomed, it became necessary to analysize why the initial momentum generated in establishing the IAP was faltering. This thesis collates some of these ideas and initiates fresh data on delegates motivations and needs. In Chapter 4 various hypotheses regarding the IAP will be presented and evaluated which will provide a basis for a more detailed analysis of the future of the IAP.

3.4 OBJECTIVES OF STUDY

The overall objective of this study is to illustrate the design of effective and consistent marketing strategies which will assist in ensuring the long term development of courses such as the Industrial Administration Programme. Although the IAP concept has, to a certain degree, already been marketed, it has to a large extent been done on an ad hoc basis, and the emphasis could have been influenced by the University's view of what motivates the technical graduate to register for a course such as the IAP.

It is therefore also an objective to establish on a rigorous basis exactly what the needs, motivations and attitudes of potential IAP delegates are likely to be. Subsequent to the establishment of these parameters it will be possible to formulate the philosophy of the marketing strategy based on these parameters and the needs of the market place. The ascertaining of motivation and expectations and an assessment of how these motivations have been met by the IAP is primarily done by researching details of past delegates to the IAP and evaluating this data. The results are used to construct a profile of potential IAP delegates. Consequently an important ancilliary objective is to ascertain an accurate profile of the "typical" delegate in the past and to decide whether this profile should describe the future target market.

Another important objective of the study is to adequately segment the academic market in which the IAP operates and then to evaluate whether the IAP could develop a particular unique product and/or satisfy a special group of consumer. While it should be emphasized that it is not within the scope of this study to redesign the IAP product itself, the segmentation analysis to be done will not only have the objective of defining the market segments and the establishment of target markets, but will of necessity need to evaluate the product component in the formulation of the marketing mix.

This study will, therefore, concern itself primarily in seeing if distinct categorization of the various "consumers" may be made with particular reference to the consumers (both past and future) of the IAP. If such a profile or categorization of the IAP delegate emerges then a marketing strategy will be devised which will comprehend

- the current consumer profile
- the current product profile
- the competitive environment
- the needs and motivations of all interacting parties in the market.
- modifications possible to consumer or product profiles.
- advertising, promotion, public relations and media alternatives.

As a final objective it is hoped that the academic formulation of a marketing strategy will result in a degree of marketing and promotional consistency evolving over the medium term. Marketing strategies must be dynamic but they should nevertheless revolve around a basic theme which has been established on soundly based evaluations. Kotler[31] defines a marketing strategy as "a consistent, appropriate, and feasible set of principles which hopes to achieve ..... long run customer and profit objectives in a particular competitive environment". It is the task of this study to develop such a theme and to suggest various ancilliary promotional items which may develop this theme.

On completion of this study it is envisaged that a programme will have developed which not only will ensure that the IAP product will be promoted and marketed in such a way that all components of the IAP (Industry, the University, past and potential delegates) will achieve optimum long term utility, but that a generalized framework for the marketing of other academic courses will have been developed.

3.5 SCOPE AND LIMITATION OF STUDY

Over the past 10 years an increasing awareness has arisen in South Africa for the need to provide post-graduate training in Adminstration, with the emphasis being predominantly on "Business Administration". The generalized aim of this type of training was to provide the delegate with a balanced comprehension of the activities and functions of the enterprize. A trend has recently emerged whereby specialized administration courses are being offered to cater more specifically for the needs of individual segments e.g. "Manufacturing Administration" vs "Entrepreneurship" Each of these segments anticipates different needs and skills and the new courses that are evolving are attempting to develop these specific needs. The Industrial Adminstration Programme's "emphasis is not so much on business management as on the management of industrial enterprize".[32]

This study will therefore concern itself with examining this market - its elements, consumers and future trends - with particular consideration being given to the technical graduate as a consumer.

It is believed that the most important long term contribution this study can make is to help define some of the "why" component regarding the IAP, e.g.

- Why do delegates register for the IAP?
- Why these delegates?
- Why is the IAP offered at all?
- Why is Industry not actively supporting the IAP?
- Why is erratic response being achieved to existing advertising campaigns?
- Why is the course image amorphous?

Responses obtained from previous delegates form the pre-cursor for the tentative answers to the above type questions. From this should evolve a directional strategy which may have the effect of crystalizing the marketing goals of the IPA course.

The scope of the study is limited to the consideration of potential delegates who have already obtained degrees and who are now seeking additional training/challenges/opportunities. On this basis the assumption is made that the prime competitors to the IAP course, will be courses offered by other Universities. In the survey of the competitive environment brief consideration is given to other institutions such as Technicons but with major emphasis being given to those other post graduate courses which might more directly meet the graduate's aspirations. Having imposed this limitation may possibly result in it being impossible to promote the IAP as a serious contender for the limited number of candidates available - this will result in the formulation of a 'negative' marketing policy and imply the necessity of re-designing the IAP product.

The study will also be limited by a lack of data regarding delegates. This is partly due to the short time period over which the course has operated - in addition the various application forms, which form the data base regarding delegates personal details, have changed over the past 5 years. The resultant data is, therefore, different and/or not available from this source. It is pertinent to mention that this

illustrative study concentrates on the needs and motivations of actual delegates, and does not critically evaluate these people who applied but never eventually registered for the IAP. (67% of those applicants who submitted application forms actually registered for the IAP). While research into this area could have proved fruitful for other courses it was considered that, since practically all qualified applicants have been accepted by the selection committee, those who did not ultimately register probably do not form part of the actual "consumer profile".

The IAP consumer and his interaction with the marketing environment forms the most important part of the study. Therefore while other elements of the marketing environment will be considered, no in depth comparisons will be made save to the extent that it helps the definition of a degree of marketing or promotional point of difference for the IAP.

Finally, the formulation of a marketing strategy, though based on quantitative research, will essentially be creative and subjective. Of necessity this strategy will be based on the conclusions reached from the research undertaken, but the specific suggestions made will themselves not be capable of withstanding rigorous or excessively critical analysis. These suggestions must form part of a large set of similar strategies all having equivalent validity.

Notwithstanding these constraints it is believed that a planned and consistent marketing strategy is of vital importance to the long term success of the IAP, and that this initial study consequently has great relevance in the development of this success.

3.6 DEFINITIONS

It is appropriate at this stage to define some of the terms used in the context of this study.
An "applicant" refers to a person who formally submitted a completed application form requesting acceptance for the IAP course. Those who attended the various IAP courses between 1976 - 1980 are referred to as

delegates, while those who completed the course are referred to as IAP graduates.
The abbreviation "IAP" refers to the Industrial Administration Programme run by the Department of Mechanical Engineering at the University of Cape Town. It should be noted however, that the various terms "IAP", and "Industrial Administration Programme", are used interchangably in the initial phase of this report - thereafter a particular designation will be used as part of the marketing strategy suggested in Part II.

The term Industry is used throughout this study to mean technically based enterprises, as contrasted with business/commerce which is assumed for the purpose of this study to be service/financially/administratively/ or trading based.
Throughout this study references are made to the concept of "Industrial Administration," and consideration will now be given to defining this term.

According to Webster's New Collegiate Dictionary [33], administration may be defined as the "performance of the executive duties of an institution, business or the like". Following this definition Industrial Administration would relate to the performance of executive duties in an industrial environment. The meaning of the word 'executive' has however changed considerably over the past decades - whereas previously it meant "to complete, effect, to do what is provided for"[1], in the modern business environment it implies a decision maker and policy shaper. Consequently the word "administration", in its modern academic sense, has evolved to mean something close to "management". These semantics are probably only of relevance in assessing the importance of the name "The Industrial Administration Programme" as an element of the marketing strategy to be formulated.
"Henri Fayol [34] believed that in administration all activities in a business undertaking could be divided into six groups :

- Technical operations (production, manufacture)
- Commercial operations (purchase, sales and exchanges)
- Financial operations (funding and controlling capital)

- Security operations (protection of goods and persons)
- Accounting operations (stocktaking, balance sheet, statistics)
- Administration operations (planning, organisation, command, co-ordination and control).

Fayol's classification provides a convenient framework with which Industrial Administration may be differentiated from other fields of administration. As stated in the IAP brochure "emphasis is not so much on "business management" as on the management of industrial enterprize.

If it is accepted that a need exists for particular skills and training in the industrial environment viz a viz the commercial/financial environment, then it is also implied that in addition certain basic skills should be common to all types of administration and management. Industrial administration therefore seeks to develop particular expertise in the specialist management areas of operations management, production management, maintenance management, design management, and research and development management. Basic expertise in fields such as enterprise management, marketing, law, human relations is therefore assumed and the Industrial Administrator decides to specialize in the particular fields of Industrial Engineering specified above. This choice of specialization is appropriate both to the background of the Industrial Administration and the industrial environment within which it operates. These statements all imply that 'different' types of administration are needed for different types of environment - this is however only true at middle management level. At top management level a parity of demands created by the various types of expertise is assumed.

This thought therefore leads to the basic differentiation of "industrial' versus 'business' administration. The first is aimed at the 'specialist' manager while the second is aimed at the 'general' manager. As a corporate consequence of this categorization the specialist manager is more likely to be middle as opposed to top management. The relevance of this thought will be more fully discussed in Chapter 6 "The Competitive Environment".

In summary, therefore, Industrial Administration seeks to develop the skills of people so that they may constructively influence the management of the technical / manufacturing sphere of the enterprize. Normally the Industrial Administrator will himself have a technical background onto which will be overlayed the skills of general business administration and specialized industrial engineering type techniques.

Within the defined concept of the IAP a technical background is almost mandatory and the course seeks to develop Industrial Administration by firstly providing the core commercial / financial / management knowledge lacking from a purely technical education and secondly to focus more detailed attention on specialist aspects of Industrial Engineering. In exactly the same way it is feasible that other specialist administration courses could develop each of which would reflect a specialist direction subsequent to the attainment of the core knowledge. Following Fayol's original classification this could additionally lead to specialists in Financial Administration; Commercial Administration; Security Administration, Accounting Administration; etc. All of these would then have attained an adequate, but not specialized, knowledge of Industrial Administration.

In conclusion, the following quote from the Industrial Administration Information Brochure summarizes the generally accepted concept of Industrial Administration, and differentiates between knowledge attainment and skill acquisition :

> "To gain knowledge in the latest thinking in Industrial Engineering, in Finance, Management, Accounting, Statistics, Law and Human Relations as is required by an engineering manager.
>
> To learn skills in Operational Research, Work Study, Work Measurement, Maintenance, Safety and Loss Control, Technological Forecasting, and Quality Control.
>
> To restructure attitudes to the job, to people, to new production methods, to management problem solving, and to the activities and importance of the other functions in an industrial concern."

These basic definitions help to define the study area. Other definitions which pertain to specific topics or techniques are dealt with in the appropriate place in the text. Further consideration of the appropriateness of the Brochure description will be done as part of the specific recommendations of Part II.

3.7 PRESENTATION OF STUDY

This Chapter has provided a brief overview of the IAP course, and the objectives and scope of the study. Because this study will now concentrate on an evaluation of the interaction of the IAP product within the marketing environment, it is preferable to examine each component of the environment in the light of the results of the research undertaken in this study. For this reason, subsequent to the presentation of the methodology adopted in this study, the results and conclusions obtained from the research will be summarized.
Thereafter the hypotheses made will be critically examined and a suggested marketing strategy outlined. Consequently the first phase of this study will concentrate on the research done, the results obtained and the tentative strategy which evolves from the results. The second phase of the study will then consider, in the light of the research findings, each element of the marketing environment which impinges on this strategy - topics such as demand, competition, product positioning, market segmentation, the professional engineer in South Africa, etc, will be considered. Any revisions necessary to the strategy were considered in this phase.

Subsequent to this a more detailed exposition will be given of each of the components of the marketing mix adopted and suggestions made as to how various aspects of the IAP marketing strategy could be implemented in practice. (Part II)
By choosing this order of presentation it is anticipated that a rapid assimilation of the salient features of the research results will be facilitated. A more coherent discussion on other market influences can then be presented since the idealized IAP consumer profile is already known.

CHAPTER 4

METHODOLOGY

Chapter 2 sketched the background and philosophy of marketing and consumer behaviour and it was shown that to ensure that the formulation of a marketing strategy has a logical base it was believed necessary to clearly identify :

- who the consumers are
- the needs and expectations of these consumers
- the product position in the market
- the competitive environment

While each of these aspects are capable of extension into a major study, it was nevertheless believed imperative that adequate consideration was given to these elements to attempt to develop and justify the specific illustrative marketing strategy formulated. The methodology and research concentrate exclusively on obtaining the required basic information on the IAP course of the University of Cape Town. However the process and procedure may have some generality of marketing strategy formulation for academic courses.

Before proceeding to the details which have been developed as a consequence of the research undertaken on these topics, it is necessary to describe the methods and techniques utilized in obtaining data, as well as outlining the theoretical background to these methods. This Chapter will therefore firstly sketch the background to, and the basic methods employed in analysing, all those elements which pertain to this study; and secondly relate how the analyses were used to establish guidelines on which this particular marketing strategy design was based.

In summary the method of study adopted involved examining the IAP course at U.C.T. on a historical basis and then, by means of an attitudinal survey of previous IAP graduates establishing criteria which represented

important motivational factors to these graduates. These criteria were then examined in comparison with the satisfaction of those needs by competitive products, and an ideal product profile was established which provided certain points of uniqueness for the IAP concept.

The primary consideration was therefore given to the analysis of the needs and motivations of the "typical" IAP delegate and the subsequent creation of product and consumer profiles which would accurately represent the IAP graduate and the repositioned IAP product. The methodology relating to those individual elements that will be described in this Chapter relate to

- statement of hypotheses
- motivation research methods
- analysis of existing data on IAP delegates
- structured questionnaire to IAP graduates
- survey of competitive courses
- product position and market demand.

This Chapter will therefore describe all the procedures adopted in this specific example, and sketch the philosophy and rationale behind the selection of the methodology. Subsequent Chapters will therefore only discuss results and strategies with little reference to the way of obtaining the data.

4.1 STATEMENT OF HYPOTHESES

An important phase that was considered was the establishment of some tentative theories or suggestions which could be used as a guide to the investigation that had to be done. These hypotheses were then used as the basis for defining the study direction, its scope and limitations. In this section the various hypotheses will be listed and briefly discussed. For convenience the hypothesis will be divided into general hypotheses; hypotheses regarding the strengths of the IAP course and concept; and hypotheses regarding the weaknesses of the IAP concept and course. Broadly speaking these hypothesis sought to isolate those critical areas which might ultimately help differentiate the IAP and its delegates from similar course.

4.1.1 General Hypotheses

- that the existence of the IAP course has some relevance to the needs of technical industry.

The main thrust of this study is towards ascertaining the potential IAP consumer's motivations and expectations, which will be researched by various means. Before proceding with the study it was however necessary to assume that the core concept had validity and that only the product details and marketing strategy needed to be developed. If at a later stage of the study this particular hypotheses was proved invalid, then in all probability the IAP product should be withdrawn from the market and consequently no marketing strategy would be necessary. As an adjunct to this hypotheses it may also be stated that the existance of other post graduate administration courses, such as the IAP, also have relevance to Industry and Commerce.

This study concentrates on an examination of the environment in which the IAP course, and its delegates, operate and an analysis of the competitive environment, rather than on an in depth analysis of the course itself. This approach is logical since the primary objective of this study is to formulate a marketing strategy and, of necessity, the strategy must be based on the existance of a product which does meet consumer needs and expectations. In other words, the emphasis will be on integrating the existing product as a component of the overall marketing strategy, rather than the conceptional redesign of the product itself. However, subsequent to the motivational research conducted, it did become necessary to suggest some aspects which related to product redesign. This was done therefore as an intrinsic component of the marketing strategy suggested, rather than as a basic evaluation of the product itself.

- that an evaluation of past graduates of the IAP would provide information on which an acceptable profile of the typical consumer could be developed

The major part of this study centres around the past graduate's motivation, attitude, needs and need fulfillment and this hypothesis consequently is of importance. At this stage of hypothesis formulation

it was also felt that only those who had actually registered for, and completed, the IAP were representative of the ultimate target market. Therefore, while a preliminary scrutiny of "other applicants" was done to help in the questionnaire design, and statistical data was acquired on all applicants, only the views of graduates of the IAP are ultimately presented in this study. It is apparent that these delegates will be representative of a specific consumer profile which will be equated to the ideal IAP consumer.

As a result of this hypothesis it was not necessary to consider the question of appropriate sample sizes for the survey, since all the past graduates of the IAP were included in the evaluation.

- that the appeal of the IAP is likely to be most predominant amongst technical graduates

The adoption of this hypothesis is consistent with the type of delegates who have already registered fro the IAP course in the past (96% of previous graduates of the IAP have had first degrees in engineering or science). The study is facilitated by this assumption since any evaluation of demand and supply can concentrate within the ambit of the scientific disciplines and technical industry.

- that a deliberate programme of image building and marketing emphasis by the IAP must be developed

The erratic number of IAP delegates over the years 1976 - 1980; combined with the historical experience that new academic concepts have to be actively marketed (of University of Pretoria MBA In 1948), to ensure their overall survival and active support from the community, suggests that scope exists to examine the marketing strategy being adopted by the IAP.

4.1.2 Hypotheses on strengths of the IAP

- that the IAP has the advantage of assuming that all delegates have a common academic background, and therefore certain advanced topics may immediately be discussed.

- that there is a definite need for engineers and scientists to supplement their technical training. This need is actively expressed both by industry and by engineers and scientists.
- that the IAP affords delegates the opportunity of developing their present technical careers and is not seen as a "stepping stone" to a new career direction. This particular concept is extensively probed in the research undertaken.
- that engineers have proved to be particularly good delegates in competitive courses and consequently the academic and group participation should be of a high standard.
- that the IAP affords the opportunity to specialize in the management of industrial enterprize, and this expertise can be more fully developed during the relatively lengthy theses preparation.
- that the IAP is more concentrated, in terms of formal lectures, than competitive courses. It is also offered on a part-time basis.

4.1.3 Hypotheses on weaknesses of the IAP

- that the marketing goals of the IAP have not been fully comprehended in both course design and advertising strategy. Restated this implies that the marketing aspects have not been actively considered.
- that the basic courses offered in finance/management/marketing etc. are more important in relation to delegates' motivations than the Industrial Engineering orientated courses.
- that it has not been possible to formulate consistent academic standards for the IAP and selection procedures for delegates. This probably stems from the "hand to mouth" existence regarding the number of delegates who will register, as well as the lack of incentive for top grade lecturers to teach on the course.
- that the IAP does not have a distinct personality, and consequently recognition of the course has been impaired.
- that the thesis section, which leads to the Master's Degree, has not been properly developed as an integral part of the IAP.

The hypotheses listed indicate that strengths of the IAP are present, but that these strengths have not been adequately developed over the past 5 years. If these hypotheses have validity then it will be possible to use them to formulate a marketing and promotional strategy which will highlight the inherent strengths and seek to eliminate the weaknesses.

It is of interest to note that in the bold statement of these hypotheses the strengths of the IAP are predominantly centred around the delegates and their abilities and motivations. On the other hand, the listed weaknesses are primarily structural in nature and relate to the IAP itself and its interaction viz a viz the academic environment. If this thought is progressed it implies that there is a good base to work from regarding concept and delegates and great flexibility with regard to structuring and developing the most appropriate IAP personality.

Before embarking on the development of any strategy of this nature it is imperative that the validity of these hypotheses are thoroughly tested and evaluated. The methods used in testing and evaluating these hypotheses will be outlined in the balance of this Chapter. Consideration will also be given to the needs and motivations of the delegates; the needs of industry; statistical data on the IAP; the competitive environment; and a close examination of 'product' and 'consumer' profiles appertaining to the IAP.

It often happens in marketing strategy design that the ultimate policies are based on assumptions which bear little relation to actuality and these assumptions are often based on the strategist's prejudices (cf. "Marketing Myopia" by Theodore Levitt, Harvard Business Review July, August 1969). Consequently considerable effort was deemed necessary to ensure the strict enforcement of a disciplined approach which would ensure that adequate cognizance was taken of the fact that the listed hypotheses might be erroneous, incomplete or biased. As a result of this review and research a modified version of these hypotheses developed which, when integrated with the 'product' and 'consumer' profiles, formed the precursor for the subsequent marketing strategy.

The synthesis of the marketing and promotional strategy is, of necessity, largely creative and subjective. However, the underlying assumptions and goals must be soundly based. The ascertainment of the marketing goals and assumptions, while ostensibly appearing to form a disproportionately large part of the study, in essence provided the skeleton of the strategy. This skeleton could then be clothed in various creative marketing and promotional strategies.

Transcending all of the hypotheses listed is the assumption that the IAP is in need of a consistent strategy and that current methods are inappropriate. Section 3.3 discussed the current status of the IAP and it appears evident that remedial action is necessary. An alternative course of action which was considered was to terminate the presentation of the IAP programme and hence obviate the need for the formulation of a marketing strategy. While this alternative remains a possible recommendation for the final strategy developed in Part II it was felt that the stance should be adopted that many valid reasons existed for the continuation of the IAP, and this is reflected in the hypotheses outlined. If at a later stage the hypotheses regarding the strengths of the IAP proved to be invalid then the marketing strategy would comprehend a new set of hypotheses which might result in a recommendation to discontinue the course. This process of hypotheses setting and evaluation is a key element of effective strategy formulation.

In summary, therefore, it was assumed that a suitable product and market existed for the IAP and its delegates, but that considerable definitions of the characteristics of this product and market needed to take place. Subsequent to the hypotheses evaluation stage a tentative strategy could be suggested which might better meet the demands of the various components of the market.

4.2 MOTIVATION RESEARCH METHODS

The most critical element of the formulation of the marketing strategy centres on the questionnaire sent to delegates which primarily sought to establish their motivations in registering for the IAP course. Various

methods were considered in designing the questionnaire. It is therefore appropriate to discuss, prior to a specific consideration of the actual methods adopted, the various alternatives available and considered.

Motivation research methods of necessity must adopt an interdisciplinary approach. For example, an accurate assessment of motivation could involve the psychological investigation of unconscious wants; and the market research analysis of marketing behaviour. Other disciplines which are used in motivation research include social psychology, anthropology and economics.

Conventional motivation research into behaviour may be classified as either direct (sometimes called nondisguised) or indirect (sometimes called disguised) techniques. The classification adopted here essentially follows that of Boyd and Westfall[68] and primarily consists of non-disguised structured techniques; non-disguised non-structured techniques; disguised non-structured techniques; and disguised structured techniques. Each type of motivational research technique will briefly be considered.

Nondisguised structured techniques - This approach to obtaining information about behaviour consists of a standardized list of questions, and where no attempt is made to disguise the purpose of the study. This type of method is often used where responses regarding attitudes, beliefs and feelings need to be ascertained.

A variety of types of questions may be used to rate these factors ranging from the simple "yes/no question" to the use of semantic step rating scales. This category of question techniques may be further broadly classified as :

(a) Single Question Techniques. This is the simplest type of attitudinal study in which respondents are asked to select one answer from a number of alternatives e.g.

"which of the following statements best describe your impression of the IAP course"

(i) Highly impressive
(ii) Disappointing
(iii) Neutral

The Single Question Technique is easy to administer and analyse but does present serious disadvantages in ascertaining true motivations in that it is very difficult to frame questions, categories and answers in such a way that the respondent clearly understands the question while not being forced to choose an inappropriate response for his own motivation. In addition, it is difficult to measure, even with the use of ranking scales, the degree of positiveness or negativeness of the respondent.

The motivation research to be conducted regarding the IAP will, having due regard for the semantic difficulties, prominently feature this type of technique, primarily since it has been possible to establish certain ostensible motivations from pre-course application forms, and the questionnaire will be designed to test the validity of these motivations.

(b) Multiple Question Techniques. This involves the devising of a series of questions with the respondents total score for all the answers indicating a particular attitude of the respondent. For example respondents attitudes to effectiveness of University training may be sought by posing a series of ranked questions. Depending on the total score achieved a favourable or unfavourable attitude to effectiveness may be ascertained. The construction of this type of structured questionnaire is exceedingly complex and may lead into the same type of semantic difficulty experienced with single question techniques while not necessarily providing greater accuracy. This is particularly true for the IAP where the universe of respondents is likely to be small. Consequently this type of question was not physically incorporated into the questionnaire itself - however the interpretation of the single responses obtained were cumulatively considered when the results were analysed.

Nondisguised-nonstructured techniques - The essential feature of this method is that neither the questions asked nor the answers given are predetermined. The respondents are questioned in a variety of different interviewing methods which are all designed to provide more detailed information about the "why component". The two main types of interviewing techniques are :

(a) The non-directive approach: Here the respondent is encouraged to talk about his feelings without being guided or prompted by direct questions from the interviewer The interpretation of results in this method is extremely difficult, and was not appropriate for the written questionnaire contemplated.

(b) The focused approach: The main value of this type of method lies in the testing and questioning of a previously developed set of hypotheses - the interviewer deliberately leads the discussion towards specific topics and opinions. A limited number of these types of interviews were conducted with IAP delegates to test the hypothesis developed during the analysis of the results of the other methods employed. This enabled the results to be verbalized and hence expanded from the constricted format of the written postal questionnaire.

Disguised-Nonstructured techniques - These types of methods are frequently referred to as projective techniques and is an offshoot of clinical psychological methods. The transmission of thoughts from one person to another, whether by the spoken or written word, is frequently coloured by the functions of attitudes, emotions and feelings. An example of this type of projection may be found amongst authors who frequently put their own personalities and experiences into the personality of their works. The techniques essentially elicit a response from the subject which is spontaneous and is indicative of true or unconscious attitude.

Projective techniques of motivation research may, amongst others, include the following:

(a) The Thematic Apperception Test (TAT): This test is a pictorial representation of an ambiguous social situation - when an individual is confronted with this picture and required to interpret it, he is likely to reveal his own personality in the process. The technique is of greatest value in assessing individual feelings and emotions related to a particular product or service.

(b) The Word Association Test: In this method the respondent instantaneously links words he associates with a given list of other words, e.g. to the word "MBA" he may immediately respond with "pressure", etc.
The underlying assumption is that by "free association" with certain stimuli the respondent will reveal his inner feelings about the subject being studied.

(c) Sentence Completion Technique: Here the respondent is provided with part of a sentence, the completion of which could take several different forms dependent on the respondent's attitude. The structuring of the sentence could either be aimed at assessing the personality of the product or the personality of the consumer.

(d) Other Techniques: These include: role playing; cartoon tests; story completion; the Rorschach Test; graphology; etc. However, few of these types of tests have been used in marketing applications of motivation research.

The accurate interpretation of these non-structured techniques requires considerable expertise combined with experience and statistics gained from previous experiments. It was therefore not considered an effective technique for the initial probe into IAP delegates motivations.

Disguised-structured Techniques: These tests are simpler to administer, and the results are easier to evaluate than disguised non-structured techniques. The primary element of disguised structured techniques lies in the fact that, while questions and answers are provided it is improbable that the respondent will be able to answer these particular

questions correctly. He is, therefore, forced to guess an answer and the extent and direction of these guesses is assumed to reveal their true motivations, e.g. To the question

"what annual monetary value would you place on the fact that you have attained your Master's Degree in Industrial Administration?"

The following answers may be provided:

"R0, R100, R1 000, R10 000".

The direction and extent of the provided answers will give an indication of a delegate's attitude towards the value of the course to that particular delegate on completion of the degree. While this technique is a valuable indicator of direction it is difficult to express quantitatively. In the delegates questionnaire a modified form of this technique is used involving scalar rankings.

Motivational research is qualititive research designed to establish consumers' awareness and attitudes. Caution should, however, always be exercised in the use of motivation research techniques both in the application of the techniques and the interpretation of the resultant data.

A study into the motivations of IAP delegates should ideally involve personal interviews, subjective reports, projective techniques, and structured questionnaires. The prime emphasis will be on the use of the non-disguised structured techniques in the design of the postal questionnaire - the hypothesis formed from these responses will be tested on a small sample by utilizing some of the other techniques described above.

4.3 ANALYSIS OF EXISTING DATA ON IAP DELEGATES

The main source of data considered under this heading consisted of

(a) The application forms submitted by delegates, and other applicants, to the University seeking acceptance onto the IAP course.

(b) The records and correspondence files of the Department of Mechanical Engineering at the University of Cape Town.

(c) The comments made by all delegates who were requested, on completion of the lecture courses, to fill in a questionnaire.

In this section a description will be given of the methodology adopted in extracting and evaluating the relevant data which existed prior to the commencement of this illustrative study.

4.3.1 Pre-course Application Forms

The data utilized incorporated all the records held by the Department of Mechanical Engineering at the University of Cape Town.

Every delegate and aspirant delegate is required to complete an application form and submit it to the Department of Mechanical Engineering prior to the course. This application form is then considered by the Department and the candidate is advised whether they will be permitted to enroll. Occassionaly personal interviews are held to validate/clarify the application form before deciding on permission to enroll. (An example of the 1980 Application Form is shown in Appendix 1.) These application forms provided a fruitful bank of data which enabled a preliminary formulation of the hypotheses to be made, as well as providing specific direction regarding questions to be included in the delegates postal questionnaire.

In this analysis each application form submitted to the Department of Mechanical Engineering, both by IAP delegates, and by other applicants who never registered was systematically scrutinized and the relevant data extracted. 141 such application forms were examined. While the analysis ultimately presented only refers to actual delegates, the scrutiny of "other applicants" was done to see if any significant difference in profile existed between the two groups (e.g. age, qualifications, motivation). Since no such distinguishing profile was found in these initial stages it was not necessary to validate these application forms vis-a-vis a post course questionnaire and hence no further analysis on these "other applicants" was considered.

By extracting data from the delegates application forms it was therefor possible to build up basic data reflecting age, salary, occupation, qualifications, marital status etc. Of greater importance to this

stage of the study was that it also enabled the compilation of a list of the ostensible motivations of the delegate. This analysis of ostensible motiviation was done by categorizing the delegates pre-course comments on the application forms into 15 different categories of response and then ranking them. The categories themselves evolved from a preliminary survey of the written comments of each applicant. It was recognised that these ostensible motivations were provided to the Department in an attempt to gain admission to the course, and might substantially differ from the true motivations of the IAP consumer. Nevertheless it was considered that these given motivations were a useful starting point and could serve as a base formulation for the design of the delegates questionnaire.

Unfortunately the data obtained from the application forms is not fully comprehensive since the application forms themselves were not uniform in question and content over the period studied. Consequently the data obtained in this manner does not always reflect the full universe of application forms. In addition it should be emphasized that the responses extracted from the application forms were unstructured and consequently the process of categorization, was of necessity, largely subjective, but nevertheless proved to be a useful precurser for the questionnaire design.

In summary it is believed that a representative statistical profile of the delegates was obtained from the application forms. With respect to the more subjective motivation analysis it provided a base for comparison with the subsequent market research conducted and it should only be seen in this light.

The type of data collected from this phase of the investigation yielded results on:

- number of formal applicants
- number of delegates
- failure rate
- age
- marital status

- job status
- salary
- qualifications
- sphere of employment
- reasons for applying for the course

4.3.2 The records of the Department of Mechanical Engineering

The personal and correspondence files of the Department were made available for use in this study. While most of the data obtained from this source essentially duplicated that of the pre-course application forms, it was additionally possible to extract three other topics from this source, viz:

- examination results (by subject)
- correspondence with delegates, and also those applicants who ultimately never formally registered for the IAP course
- historical advertising campaigns

Information on these items was obtained by systematically reading all these files, extracting the pertinent information, tabulating the results and ultimately utilizing the facts and impressions gained in the development of this proposed strategy.

An assessment was also made as to whether any cross tabulations could be established which could assist in the development of the marketing strategy, but it was concluded that the only significant cross tabulation would have been between advertising programme adopted and the number of applications received. Unfortunately the incomplete records available on both these categories would have made such a comparison of little validity.

4.3.3 Delegate's post-course comments

At the end of each of the courses run between 1976 - 1980 all delegates were requested to complete a questionnaire which sought to ascertain the individual delegate's attitude to particular aspects of the IAP. To a large extent the questionnaire related to details regarding the course

structure, lecturers, books, facilities, degree of difficulty experienced, etc. As such the answers received are not directly relevant to the study or alternatively have been researched in the delegates postal questionnaire. In addition the actual questions and questionnaires varied from year to year - as a consequence of this the data was perused with the aim of ascertaining broad trends in opinion rather than generating a series of invalid statistical data. Therefore only the results of the evaluation of these comments will be provided in this study. The perusal of the responses to the post course questionnaire was therefore done with the primary aim of assessing delegates attitudes to the course and noting any suggestions regarding ways to improve the IAP. No examples of these questionnaires have been included in the Appendix since no single years questionnaire was at all representative of the 5 different questionnaires studied.

4.3.4 Design of Structured Questionnaire to IAP Graduates

Based on the generalized information extracted during the research phases described, a further questionnaire was designed and distributed by post to those delegates who had successfully completed to IAP. The aim of this questionnaire was to elucidate more specific guidelines on the hypotheses made regarding delegates true attributes and motivations. This would form the basis of the marketing strategy to be formulated.

The design of this postal questionnaire was of central importance to the accurate formulation of a marketing strategy and extreme care was taken in the questionnaire design to ensure that optimal and meaningful responses were obtained. Information was sought in the following areas:

- methods of learning of the IAP
- motivations to undertake further study
- motivations for selecting the IAP
- attitudes to the IAP course and concept
- establishment of product characteristics
- proposals regarding the IAP course and concept.

The questionnaire which was eventually sent to all graduates is presented in Appendix 2. The questionnaire consisted of 12 questions and the anticipated completion time of the questionnaire by the respondent, based on a pilot study, was approximately 30 minutes.

The core elements of the questionnaire design were primarily according to the EKB model which was discussed in 2.8.2. As mentioned the essence of the EKB model is the sequential decision making process and an attempt was made in the design stage to frame the format of the questionnaire according to the EKB model. To illustrate the link between the principles of the EKB and their applications in the postal questionnaire Table 4(1) is provided.

Table 4(1)

Link between questionnaire and EKB model

Question No.	Decision Process Stage	EKB Sequence
1	Problem recognition	Information input
2	Search	Information input
3	Problem recognition	General motivation
4	Problem recognition	General motivation
5	N/a	N/a
6	Alternative evaluation	Product Brand Evaluation
7	Choice and outcome	Environmental influences
8	Alternative evaluation	Product Brand Evaluation
9	Outcome	Environmental influences
10 - 12	N/a	N/a

Question Number: This refers to the question number in the IAP questionnaire shown in the Appendix (e.g. Q1)

Decision Process Stage: This refers to the particular stage in the decision making process as depicted in the EKB model (e.g. Search)

EKB Sequence: This refers to the vertical grouping of related activities as depicted in the EKB model (e.g. Product Brand evaluations).

N/A: Not applicable since question inserted to obtain a specific or qualititave response.

It should also be pointed out that the questionnaire attempted to follow a time related sequence of questions which approximated the sequence of the decision process as given in the EKB model. The close relationship with the EKB model, therefore, provides the theoretical capability of examining the results obtained in the light of an accepted model of consumer behaviour. Consideration was given to the possibility of a computer correlation of the EKB model with the results obtained from the questionnaire. Owing to the subjective nature of the response anticipated it was believed that a manual evaluation of each received questionnaire would be more beneficial in indentifying the nuances and tone which formed vital input in the formulation of the ultimate marketing strategy; but which would be lost in the data assimilation necessary for a computer correlation and evaluation.

The design of the questions themselves varied from free response to specific scalar ranking of attitudes and motivations. In general terms an unstructured free response was first sought and this was then tested against the hypotheses previously formulated in 4.1. Scalar rankings utilized a left positive 5 point numerical scale i.e. where '1' is regarded as the most positive and 5 the most negative attribute.

Once the questionnaire was constructed it was pilot tested among 6 graduates (2 MBA's, 1 B Com Hons, and 3 who had completed the IAP). This pilot test resulted in numerous questions being replaced (or deleted), to more accurately and clearly express the intention. The reconstructed questionnaire was then re-submitted to this test panel for validation and comment, and the final form of the questionnaire emerged. It was thus felt that a considerable amount of vagueness and ambiguity was omitted at this stage and resulted in a more concise and valid questionnaire.

The questionnaire, together with its covering letter, signed by Professor Dutkiewicz of the Department of Mechanical Engineering at the University of Cape Town, was then mailed to all possible IAP graduates (Appendix 2). This letter requested that all delegates make an effort to complete and return the questionnaire - a 68% response was achieved which is considered good for a postal survey to a common interest group such as IAP graduates. Babbie [35] considers a 60% response as good and a 70% return as very good.

The following table illustrates the pattern of responses obtained.

Table 4(2)

Questionnaire Response

YEAR	TOTAL NO OF POTENTIAL GRADUATES	CONTACTABLE	NUMBER OF RESPONSES	% RESPONSE OF POTENTIAL	% RESPONSE OF TOTAL RESPONSES RECEIVED
1976	18	13	5	38	10
1977	12	10	8	80	16
1978	15	15	11	73	23
1979	14	14	8	57	16
1980	20	20	17	85	35
TOTAL	79	72	49	68	100

4.3.5 Analysis of this questionnaire

The received questionnaires were then hand sorted and tabulated. This phase was considered more important than the mere compilation of statistical data since it was utilised to interpret many of the answers in the light of the generalised discussion provided by the respondents; for example Question 12. Question 12 requested suggestions on how to improve and/or market the IAP concept.

Since the questionnaires were sent to the entire population of possible respondents no consideration needs to be given to the selection of an appropriate sample size for the questionnaire, and consequently the statistical consideration of probability levels is also not necessary.

The responses were scrutinized and the results categorized according to the year in which the particular graduate had attended the IAP course - the questionnaires were coded such that each particular respondent could be identified by name and year of study.

It was anticpated that meaningful cross tabulation could be made between the questions and between sub-groups of respondents eg.

- branch of engineering versus real motivation
- year of study versus method of learning of course

However, as can be seen from the detailed results presented in Appendix 3 this was not practical since firstly the number of respondents in each year/group became so small that no valid conclusions could be drawn, and secondly the responses themselves were often unstructured and consequently needed to be interpreted by the researcher. It was therefore felt that the small range of responses, combined with the intrinsic bias inherent in unstructured responses made effective cross tabulation impractical on a large scale - a limited number of relationships will however be highlighted in the presentation of results.

The method adopted to accumulate the data was firstly to extract from each questionnaire the quantifiable responses (yes/no and ranked questions) and to record these responses cumulatively on a question number/answer/year of study matrix.

Secondly those questions whose design led to an unstructured format were analysed on a two phase basis. The first phase consisted of recording the essence of each of the responses for each question, while the second phase involved the establishment of suitable categories of response based on these summarized responses. Subsequently each of the summarized responses was allocated into a category.

The frequency achieved in each of the categories established in this way is presented as the result of the questionnaire.

4.4 SURVEY OF COMPETITIVE COURSES

Before embarking on the formulation of a marketing strategy it was also necessary to examine the academic competitive environment in which the IAP operates.

The review of the competitive environment in which the product operates was considered on a two pronged basis.

(1) A literature search was conducted of all the brochures, prospectuses and publications issued by the various Universities as information to the prospective students. This information was supplemented by various descriptive articles which have been published such as: 'UCT's Graduate School of Business, A Special Survey Supplement to the Financial Mail', January 30, 1981; and 'Nagraadse Bestuurskool van die Universiteit van Stellenbosch;" Bylae by die Burger en Beeld, 14 Augustus 1981.

The other sources of reference used are listed in the bibliography.

These publications and brochures were utilized with the prime objectives of ascertaining the marketing philosophies of the various Institutions, as well as the type of delegate they were seeking to respond to the various media exposures. While the primary purpose of this literature scan was to examine "Administration" type courses, all courses that could be considered as alternatives to the IAP (eg. M.Sc) were also considered at this stage.

(2) The type of publications mentioned in (1) tend to be descriptive in nature and are heavily influenced by the desire to attract suitable applicants. It was therefore considered necessary to attempt to obtain factual data from the Universities regarding the courses which they offered, their advertising strategies, marketing philosophies, past delegates' profiles and course structure.

Since it was anticipated that difficulty would be experienced in getting the co-operation of the various Universities, the various Registrars or Heads of Departments were formally approached requesting their co-operation and their nomination of a particular individual in the relevant Department who would be willing to assist. The covering letter signed by Professor R.K. Dutkiewicz of the Department of Mechanical Engineering and the explanatory letter requesting co-operation are presented in Appendix 4.

A total of 14 letters were sent out to the various Universities and Graduate Schools of Business in South Africa. 11 replies were received pledging their assistance and providing names of the appropriate people who would be willing to assist in the completion of the questionnaire. No replies were received from the Graduate Schools of Business of UNISA, Cape Town and Witwatersrand.

A further letter and questionnaire was sent to these 11 named people (see Appendix 5 for specimens), as well as to the Directors of the Graduate Schools of Business at UNISA, Cape Town and Witwatersrand requesting their assistance in completing the questionnaire. The questionnaire sought additional information on topics such as:

- academic aims and objectives of these "competitive" courses
- profile of past students
- course structure
- statistical data (eg. number of applicants, failure rates, etc)
- advertising and promotion methods employed
- special features of course (eg visiting lecturers)

Unfortunately replies were only forthcoming from Stellenbosch University (Industrial Engineering Courses), Potchefstroom University (MBA) and Durban - Westville University (MBA). The disappointing response mitigated against an effective "internal" comparison of the various alternate courses - consideration was given to trying to force an increased response by personal solicitation of the various non-respondents. However in the light of the low initial response received it was considered unlikely that a meaningful comparison could

ultimately be obtained even if a few more responses were eventually forthcoming. It was therefore decided that this avenue of study would not be continued, particularly in the light of the non participation of the major Graduate Schools of Business. The contributions received from Stellenbosch, Potchefstroom and Durban-Westville Universities will, however, be disclosed where each of the alternative University level courses is discussed in the survey of the competitive environment.

4.5 SURVEY OF PRODUCT POSITION AND MARKET DEMANDS

The IAP product was analysed in the context of the demand for and utilization of engineers and engineering management in South Africa. Input for this phase was predominantly done by a literature survey of studies regarding the need for engineers, their training, the future of engineering in South Africa, and long term career patterns of graduate engineers (eg the Straszacker commission and the Human Sciences Research Council). This study uses the term "engineers" in a context which includes many associated technical disciplines.

This literative survey yielded input which provided a framework to explain the position of the IAP within the overall demand and utilization pattern of the profession in South Africa. This obviously also provided a link between the needs of the IAP engineer, as established in 4.3.5., and the needs of industry and the profession.
The University and its staff also form an integral part of the study of the IAP product. Consequently various interviews were held with UCT academic staff to probe their attitude towards the needs of the University, the delegates, the profession, industry, and the role of the IAP graduates.

The actual sources used are documented in the References, but particular mention is made of the assistance received from the HSRC. The HSRC were approached and an outline was provided of the envisaged scope of this study. In a comprehensive reply they supplied invaluable suggestions regarding previous work done in this field. The research phase of acquiring an appreciation of the demand and supply position for

engineers and their education in particular was consequently extensively guided by the HSRC guidelines. (Their covering letter to the documentation provided is shown in Appendix 8).
All of these inputs were considered when defining the 'product profile' and analysing its points of difference and degree of uniqueness.

The discussions in this chapter have outlined the methodology used in this study, as well as emphasising the need for the application of marketing and consumer theories to the fields of non-profit and service enterprizes. This methodological discussion has covered all the individual topics which were considered in formulating the marketing strategy.

So as to more concisely facilitate the assimilation of the results obtained from the various approaches, the next Chapter will summarize the results and conclusions which flowed from the information collected in this manner.

CHAPTER 5

SUMMARY OF RESULTS

The preceeding Chapters have outlined the basis on which this representative study of marketing strategy design was developed. The procedures adopted and the tasks performed resulted in the accumulation of a considerable amount of information. This information will now be summarized and evaluated in the light of the hypotheses made in 4.1. Even in summarized form the information obtained is reasonably extensive - as an aid to comprehension the text will therefore occassionally summarize and re-emphasize the relevence of particular points.

The highlighting at this stage of the salient features of the illustrative study, as well as the validation of the hypotheses will facilitate the coherent discussion of the other topics which influence the formulation of an appropriate marketing strategy - topics such as the competitive environment, market demand, market segmentation, etc.

The following sequence of result presentation will be followed, and exactly complements the methodological outline provided in Chapter 4 viz.

- analysis of existing data on IAP delegates
- results from structured questionnaire to IAP graduates
- competitive environment
- evaluation of hypotheses

Subsequent to this Chapter some of the topics will be covered in more detail, in particular a survey of competitive courses, product position, and market demand. A tentative strategy will also be suggested.

5.1 ANALYSIS OF EXISTING DATA ON IAP DELEGATES

For the sake of clarity the results presented in section 5.1.1 may combine data gleaned from the pre-course application forms, as well as

the records of the Department of Mechanical Engineering. These records also include delegates post course comments recorded on the Departmental questionnaire, but they will be commented on separately in section 5.1.2

5.1.1 Summary of Records

A series of abbreviated tables will now be presented which will provide an overall statistical picture of the type of delegate who graduated from the IAP during the period 1976 - 1980.

Table 5(1)

Numbers of Delegates

YEAR	APPLICANTS		ACTUAL DELEGATES		NO. OF FAILURES		NO. OBTAINED MASTERS
	DEGREED	NON-DEGREED	DEGREED	NON-DEGREED	DEGREED	NON-DEGREED	
1976	20	1	19	1	2	0	6
1977	30	7	13	2	2	1	3
1978	25	4	21	2	6	2	4
1979	21	6	13	4	1	2	1
1980	23	4	19	1	0	0	0
TOTAL	119	22	85	10	11	5	14

In Table 5(1) applicants are defined as those people who formally submitted completed application forms to the Department of Mechanical Engineering; and number of failures refer to those who failed to obtain the Diploma on their first attempt.

Significant features of this Table are:

(a) 67% of all applicants actually registered
(b) 16% of delegates failed the course
(c) 19% of degreed delegates had obtained the Master Degree (including 1980 delegates) by June 1981.

Table 5(2)

Characteristics of Delegates

YEAR	MEAN AGE	STANDARD DEVIATION	% MARRIED	% OBTAINING 1ST DEGREE FROM U.C.T.	MEAN SALARY (RAND)
1976	29,4	2,98	55	65	12 700
1977	30,4	4,44	87	69	13 769
1978	32,2	6,85	67	57	13 186
1979	31,9	5,11	75	69	Not Available
1980	31,5	6,69	55	63	12 437
AVE.	31,1	-	66	65	13 023

Notes

(1) Mean Age is based on the age of the delegate when the course commenced.

(2) Standard deviation is calculated according to the formulae SD $= \sqrt{\frac{(x-\bar{x})^2}{N}}$

(3) The mean salaries shown have been inflated from the year of application to 1980. Over the period 1976 - 1980 the percentage salary increase has been assumed to be as follows (based on Table A3.30)(36)

1976 - 1977	9,3
1977 - 1978	9,3
1978 - 1979	11,4
1979 - 1980	9,7

Consequently the base data extracted from the application forms has been increased by the relevant percentage(s) so as to show the mean salaries on a common 1980 base.

Significant Features of Table 5(2) are:

(a) The mean age of the delegates has gradually increased and seems to have stabilized at approximately 31,5 years. This mean age has a standard deviation of about 6 and range of 23 - 55. It is interesting to note that a similar trend is being experienced by the UCT Graduate School of Business. The average age of the 1979 class was 29 years (37) while the average over the period 1966 - 1971 was only 26,9 years (38).

(b) About 2/3 of delegates obtained their 1st degree at UCT. This relatively high figure compares with the Stellenbosch Graduate School of Business where approximately 50% of their full time MBA students had obtained their 1st degrees at Transvaal Universities[39].

(c) There has been little change over the period with respect to the mean salaries of the delegates, probably indicating a relatively uniform delegate profile in each year.

(d) About 2/3 of the delegates are married.

Table 5(3)

Analysis of Qualifications of Delegates (Degreed)

YEAR	1 S T D E G R E E			BRANCH OF ENGINEERING				
	ENGIN-EERING	SCIENCE	OTHER	CHEM.	CIVIL	ELEC.	MECH	PROD
1976	18	0	1	0	7	3	7	1
1977	11	1	1	0	4	2	5	0
1978	16	4	1	3	2	4	6	1
1979	9	4	0	2	3	1	3	0
1980	13	6	0	2	5	2	4	0
TOTAL	67	15	3	7	21	12	25	2

Since the IAP course is predominantly structured for engineers it was necessary to analyse how the individual branches of engineering were represented. Civil and Mechanical engineers predominate which is interesting in the light of the emphasis normally given to the more factory/industrial orientated Industrial Engineering courses. This aspect will be discussed more fully in later chapters.

79% of the IAP delegates had first degrees in engineering and 13 delegates (15%) had obtained Masters or Doctors degrees prior to enrolling for the IAP.

This is obviously considerably more than say the MBA course at Stellenbosch University where 14% of their past delegates had engineering degrees[39].

In broad terms the typical delegates have in fact been highly qualified engineers with a reasonable amount of practical engineering experience.

Table 5(4)

Examination Success By Year

YEAR	GRADE				
	1	2+	2-	3	F
1976	0	0	6	10	2
1977	0	3	9	0	3
1978	1	3	3	9	8
1979	1	2	7	4	3
1980	1	5	7	6	0
TOTAL	3	13	32	29	16

Table 5(4) is of interest since it shows a shift between the years with respect to the distribution of final grades received for the course as a whole. It will be mentioned later on that a fair proportion of previous delegates indicated in the open-ended section of the structured questionnaire that they believed that the course had variable and inconsistant standards. Though the direct linking of examination result distributions and the delegates expressed impression is not logical, the trends themselves are probably significant in marketing terms. Such impressions, whether valid or not, tend to obviate against the building of a consistent and satisfactory image for the course as a whole.

At this point it is probably also pertinent to mention that the failure rate per individual subject is also revealing. Over the period 1977 - 1980 only 4 delegates have failed Industrial Engineering which is designed to be the substantial core of the course, while 37 delegates have failed Accounting, 24 Finance and 21 Statistics. The other subjects have had minimal failure rates (range 1-6). Since the IAP course was designed to develop high level skills in Industrial Engineering, it seems inappropriate that as such the pass rate and marks achieved by the delegates for Industrial Engineering were substantially better than other subjects. Even if a good background in Industrial Engineering is assumed as a result of the delegate's experience, it reinforces the idea that an even higher level of course work could have demanded by the Department - such that no disproportionate skewing of marks viz a viz other subjects was obtained.

These comments are based on an analysis of the records held in the Department and therefore only reflect a generalized position which needed to be tested via the attitudinal questionnaire. As a final point regarding the concept of "standards" (which in itself is impossible to quantify), and Industrial Engineering standards in particular, it should be highlighted that the weighting attributed to the Industrial Engineering course, and the results obtained have enabled a proportion of delegates to obtain the overall pass mark of 50% for the course as a whole.

These aspects are reconsidered in the development of the product profile.

Table 5(5)

Sphere of Occupation of Delegates

YEAR	MANUFACTURING INDUSTRY	CONSULTING & CONTRACTING	PUBLIC SECTOR	ACADEMIC	SERVICE INDUSTRY	TOTAL
1976	4	8	7	1	0	20
1977	7	3	2	0	3	15
1978	7	5	6	2	2	22
1979	7	4	3	1	0	15
1980	11	3	3	2	1	20
TOTAL	36	23	21	6	6	92
%	39%	25%	23%	6%	7%	100

Table 5(5) groups all government and semi-government institutions under the category Public Sector.

Service Industry includes undertakings such as newspapers, insurance, industry, etc.

Significant Features of Table 5(5) are:

(a) The comparatively low proportion of those in manufacturing industry.
(b) The relatively high proportion of those employed in the public sector.
(c) The relatively high proportion of those employed in the consulting/contracting sector of Industry.

Table 5(6)

GROUPED REASONS FOR WANTING TO DO THE IAP

RANK	REASON	FREQUENCY
1	Move from pure engineering into engineering management	34
2	Formal Training in finance, law, accounting, etc.	32
3	Prospects and Career Advancement	28
4	Bridge gap in technical training	22
5	Framework for knowledge aquisition in practice	20
6	To acquire management skills/move into management	19
7	Qualification from UCT/Master's Degree	15
8	Change from Public to Private Sector	10
9	Part time/intensive nature	8
10	Academic and Professional interest	8
11	Useful for project and contract management	8
12	Formal training in industrial engineering subjects	5

The generalized responses were analysed and the applicants comments were ultimately categorised into the above groupings. It should be emphasised that the responses extracted from the application forms were unstructured and consequently the process of categorisation was of necessity largely subjective but nevertheless proved to be a useful precursor for the questionnaire design. Also, as pointed out in Chapter 2, cross tabulations were inappropriate due to the small number of responses received in each group surveyed. The above ranking should be seen in its true context as being a formalised reply to an application form where a desired response was required by the University - consequently it was necessary to evaluate possible "non academic" motives in the delegates postal questionnaires.

Consolidation of Results

Examination of the data available from the University and summarised in the above Tables, yields a physical profile of the IAP delegates which is in accordance with the delegate standards for which the course was designed viz:

- graduate engineers
- age during course about 31 years
- predominently employed in "technical" enterprizes
- middle management with 5 - 10 years experience

Somewhat surprising given motivations emerged from the analysis viz:

- a desire/need to move away from pure engineering into 'management'
- a drive to acquire non engineering expertise (law, finance, etc)
- most important of all a very low expressed desire to acquire training in Industrial Engineering

It was consequently necessary to evaluate how relevant the above findings were by attempting to ascertain true motivation of the delegates, and to compare these results. This was done by means of the structured questionnaire to all previous graduates of the IAP.

5.1.2 Delegates post course comments

As discussed in 4.3.3 the questionnaires filled in by the delegates at the completion of each year's lecture course primarily related to details regarding the course structure, lectures, facilities, etc. As such the information available was not directly relevant to the formulation of a marketing strategy. Consequently the perusal of these post course questionnaires was done with the aim of assessing delegates' attitudes to the course and noting any suggestions made regarding ways to improve the IAP.

In evaluating the Department of Mechanical Engineering's summaries of each years comments it was evident that considerable satisfaction existed regarding the IAP course, both conceptually and structually. At the same time considerable disatisfaction was voiced regarding elements of the course notably lecturers, co-ordination between courses, standards, and balance between the subjects. Overall however delegates felt that their expectations had been met - this question of whether expectations had been met was specifically asked of the 1980 and 1979 classes and 60% answered "yes", 30% were undecided, and only 10% said "no".

As pointed out before an analysis will not be made of the IAP product except so far as it affects the ultimate marketing strategy. Some suggested improvements to the course which were highlighted by some delegates, and, while not necessarily having general validity, had to be tested for their applicability to the strategy being designed were:

- a pre course entrance test to set correct climate
- make Maths I or attendance at a pre course maths seminar a pre-requisite
- raise standards generally
- lecturers from industry should be more involved
- complete courses should be available as pre-course reading
- greater emphasis on Industrial Engineering
- group projects at industrial concerns
- lengthen course to a full year
- greater emphasis on class participation

One of the primary aims of this questionnaire was to assess the individual courses and lecturers with respect to lecturing ability, course content, and course length. A remarkable degree of unanimity existed amongst the delegates regarding the effectiveness of the various courses and lecturers.

In the light of the fact that delegates have consistently commented on low lecturing standards it is pertinent to note that particular lecturers and their courses have been rated very, very poorly by the various classes and yet they continued to be invited to lecture on the course. From a marketing strategy point of view this obviously can only prejudice future efforts if cognisance is not taken of consumer's attitudes. For clarity it should be added that the poor ratings were normally associated with course presentation factors such as "disinterested; unplanned; slovenly; easily sidetracked; unchallenging; inexperienced; badly prepared; bad attitude to IAP". It is important to note that these type of comments invariably revolve around "image" factors rather than academic factors and as such it is believed important to eradicate these bad image factors in the development of a long term marketing strategy for the IAP.

These post course comments therefore did not ultimately prove a fruitful source of information, possibly since those comments were all made prior to the examination results being known, a certain reticience to be too controversial or emphatic was probably predictable.

5.2 ANALYSIS OF RESULTS OF STRUCTURED QUESTIONNAIRE TO IAP GRADUATES

In this section the results are provided of the responses obtained from the postal questionnaire sent to IAP graduates. While the data and procedure is specific to the example chosen (IAP) the process of information gathering is not - it is this overall process which is illustrated in this study.

Table 4(1), which is repeated here for easy reference, shows that in most years the number of responses obtained in each year was relatively small; therefore the results presented in this section will represent the total number of all responses received. Full Tables are provided in Appendix 3 and the respective Table numbers are indicated in this summary.

Table 5(7)

Questionnaire Response

YEAR	TOTAL NO OF POTENTIAL GRADUATES	CONTACTABLE	NUMBER OF RESPONSES	% RESPONSE OF POTENTIAL	% RESPONSE OF TOTAL RESPONSES RECEIVED
1976	18	13	5	38	10
1977	12	10	8	80	16
1978	15	15	11	73	23
1979	14	14	8	57	16
1980	20	20	17	85	35
TOTAL	79	72	49	68	100

It also should be emphasised that the number of respondents actually varied from question to question, since all questions were not always answered by each respondent. Consequently though a maximum of 49 responses per question was possible, individual question responses were occassionally less than this number. This should be borne in mind if comparison between responses to various questions are made.

As mentioned previously the detailed questionnaire is to be found in Appendix 2 and only the abbreviated forms of the question will be presented in this summary of results.

Question 1: Method of learning of existence of IAP (Table A3.1)

Advertisements	39%
Friends/Aquaintances	32%
Other (mainly mailed brochures)	13%
While at University	9%
From Employer	4%
Professional Society Publications	3%

It was significant that nobody mentioned that they had first become aware of the IAP by any public relations type exposure (radio interviews with visiting lecturers, press comment on course activities etc). A large gap in the effective utilization of the media is indicated by this response.

Question 2: Consideration of other courses prior to registering for the IAP (Table A3.2)

67% of the IAP delegates seriously considered and evaluated other courses prior to actual registering for the IAP.

Those who answered the question in the affirmative were asked to specify which other courses. The breakdown of the alternative courses considered were as follows:

MBA	66%
MBL	14%
B Com/M Com	9%
Other	11%

The responses in the "other" category were for the following courses:

Diploma of Business Administration	(Technical College)
Diploma Datametrics	(Unisa)
Construction Management Course	(UCT Graduate School of Business)
ME 501 (Industrial Engineering)	(UCT Mechanical Engineering Dept.)

From subsequent questions it became evident that the 33% who did not consider any other course probably wanted to be involved with a course which was "run by engineers for engineers" or "is run by the Faculty of Engineering". This relatively high interest in the engineering connotations of the degree is significant when considering the marketing of the IAP - this point is elaborated on later.

Of those who considered alternative courses the 80% MBA/MBL comparison is of interest when related to some of the motivations of the delegates ascertained - viz to move into management and to acquire formalized knowledge in legal, financial and accounting disciplines. The MBA offered by the University of Cape Town was the predominantly specified MBA once their part-time course became operational.

Question 3: Unstructured ascertainment of real motivation to study further and to enroll for the IAP (Tables A3.3 and A3.4)

Since the responses to these questions are of importance the full results are reproduced here as well as in the Appendix.

Table 5(8)

Question 3(a) Real Motivation for studying further

RANK	MOTIVATION	FREQUENCY	%	PRE COURSE RANKING See Table 5.6
1	Acquire management expertise	21	32	1
2	Post graduate course/ Masters Degree	11	17	7
3	Broaden knowledge	10	15	10
4	Prospects & Career Advancement	6	9	3
5	Stimulation/Occupy Mind	5	8	Not Ranked
5	Qualification in Industrial Eng.	5	8	12
6	Knowledge in Finance/Law/Acctg.	4	7	2
7	Spare Time	1	1	Not Ranked
7	Complete Technical Training	1	1	Not Ranked
7	Get out of army	1	1	Not Ranked
7	Get away from engineering	1	1	Not Ranked
TOTAL		66	100	

The comments provided in Question 3(a) presented a great variety of reasons with probably the need to acquire management expertise the only item to be regularly brought in as part of the discussion. Of interest in this section was that in the pre-course application forms this motivation was most frequently expressed in the form "to move from pure engineering to engineering management", while under this real motivation section the thought was most frequently expressed as "to acquire management/business expertise". This change in expression corresponds with the delegates predominant consideration of MBA/MBL type courses as alternative routes to achieve satisfaction.

Table 5(9)

Question 3(b) Real motivations for choosing the IAP

RANK	MOTIVATION	FREQUENCY	%
1	Part Time	15	19
2	Short	11	14
3	Engineering orientated	9	11
4	Curriculum Offered	7	9
5	Management Expertise	6	7
6	Cheap/no loss of income	5	6
7	Masters Degree	4	5
8	Easy	3	4
9	Production/Industrial Eng.	3	4
10	Live lectures/Interaction	2	3
11	Other	14	18
TOTAL		69	100

Note: The "other" category consisted of 14 single responses and predominantly related to particular circumstances relating to the individual e.g. "had prerequisite qualifications" or "paralleled my previous knowledge". As such these responses were not collated into any of the above groupings.

When Table 5(9) is analysed it may be seen that approximately 50% of the responses relate to the structure of the course itself (e.g. short, part time, live lectures, etc). A further 27% relates to the courses offered, engineering faculty and wide range of subjects to be studied.

Table 5(6) and Table 5(8) show a broad agreement only on the motivations of management expertise acquisition when framed in a general context. On specific relation to the IAP itself in Table 5(9) the characteristics of the IAP itself predominated and did not provide any uniformity or correlation with the ostensible motivations previously provided. While

this could have been a function of the question itself it is felt that there were genuine "product" reasons for choosing the IAP, and that in this choice the true motivations to study further were not always rationally considered.

Question 4 elaborated on the delegates true motivations.

Question 4: Reasons for selecting the IAP (Tables A3.5 to A3.21)

In this question the motivation features were listed and the IAP delegates were requested to rank their attitudes on a 5 point left positive numerical scale. It should be mentioned that while the left positive scale has the advantage of associating the '1st' is best syndrome it does have disadvantages in expressing the date graphically since the positive response appears in the negative quadrant. According to the Bureau of Market Research(40) there is little to choose between using left positive and right positive scales. The 5 point scale used was described in the questionnaire as follows:

1 = extremely positive/important/impressive etc.
2 = modestly positive/important/impressive etc.
3 = neutral/as expected/average
4 = moderately negative/unimportant/unimpressive etc.
5 = extremely negative/unimportant/unimpressive etc.

The results were weighted by multiplying the frequency of response in each rank by the rank number. Thus technique is a modified version of the Kolmogov-Smirnov Test which compares distributions on an ordinal scale, (41) conforms to the practice adopted by Market Research Africa (Pty) Limited in evaluating ranked response. So as to make the results more meaningful the totals of the weighted rank frequencies have been modified by bringing them all to a common response base of 49.

The results achieved are summarised in Table 5(10). As a result of the left positive ordinal scale used the lowest weighted scores indicate the most positive motivation factors, and the highest scores indicate the most negative motivational factors. On the 49 response base used the most extremely positive ranking would score 49 (or 1), while the most negative ranking would score 245 (or 5). A neutral or average ranking would score 147 (or 3).

Table 5(10)

Ranked Reasons for Choosing the IAP

RANK	MOTIVATION	AVERAGE WEIGHTED SCALE	WEIGHTED SCALE
1	Prospects & Career Advancement	1,59	78
2	Part Time	1,71	84
3	Move from pure engineering to engineering management	1,98	97
4	Move from engineering to generalised management	1,94	98
5	Formal training in accounting/ finance/law/management/etc.	2,02	99
6	Short duration of the course	2,27	111
7	Academic & professional interest	2,31	113
8	Masters degree qualification	2,39	117
9	A qualification from a University	2,49	120
10	Bridge gap in technical training	2,59	127
11	Personal status, prestige and recognition	2,82	138
12	Formal training in industrial engineering subjects	2,86	140
13	A qualification from the University of Cape Town	2,90	142
14	Change of job sphere (e.g. public to private sector)	3,00	150
15	Easy qualification to obtain	3,49	169
16	Status prestige and recognition of the IAP	3,73	183

The pattern shown in this ranking table is certainly indicative of the generalized trend amongst the delegates regarding their reasons for choosing the IAP. However, it is also useful to examine the distribution of the responses received to the various questions. If these distributions are examined in more detail (See Appendix 3 data), then the extent to which the calculated weighted means are an acceptable guide may be judged. The comments made in the text were based on graphical depictions of the data. These graphs mainly reflected absolute frequency of response versus Scalar ranking.

It is interesting to note that the distributions do not follow a normal curve - this tends to support the fact that the motivations presented to the delegates were all positive motivations and consequently resulted in a skewing of the curves to the positive motivations quadrant. When the peaks of the curves of each question are grouped it is found that, in terms of pure frequency of response the following is observed:

Table 5(11)

RANK WHERE MAX. FREQ. OF RESPONSE OBSERVED	FREQUENCY	QUESTION NUMBERS	DESCRIPTION OF MOTIVATION
1	4	(iii), (iv), (vi), (xii)	Career Prospects, Move to Mgt., Training in Accounting, Part Time
2	6	(i), (viii), (ix), (x), (xi), (xii)	University Course, Gap in Training, Academic interests, Master's Degree, Short, Personal Status.
3	5	(ii), (vii), (viii) (xiv), (xvi)	UCT Course, Training in Industrial Engineering, Change job sphere, Status of IAP, Easy
4	0	-	-
5	0	-	-

Note: Question 4(v) had an equal response between 2 and 3.

The 5 maximum points correlate exactly with the top 5 motivations ranked in Table 5(10).

Since no specific directional motivations emerged from Question 4 (xvii) which requested delegates to rank any "other motivation" (See Table A3.21) it may be concluded that a consistent pattern of real motivations has emerged from Question 4.

Question 5: Importance of academic content of IAP as a motivation

21% of the respondants rated the academic content IAP as extremely important, while 48% rated the academic content as moderately important, as motivation factors to register for the IAP. The weighted ranking of 109 would have been sufficient to rank this factor number six in Table 5(10) and hence must be considered as an important motivational aspect.

Question 6: Attitudes and Opinion survey of the course itself

This section sought to give insight into the IAP product by assessing the attitudes of the past consumers of the product. In part 1(a) of this question respondants were asked to indicate their opinion of the course as a whole.

21% rated the course as better than expected
45% rated the course as expected
35% rated the course worse than expected.

This superficially shows a skewing of the response towards a negative opinion of the course as a whole. However this overall trend was highly influenced by the 1977 and 1980 classes in which proportionately more people rated the course as worse than expected (69% of the "worse" category respondants came from these years).

In Question 6 1(b) respondants were asked why they held the attitude expressed in Question 6 1(a).

Twenty two negative reasons, and twelve positive reasons were provided. These reasons are listed in Table 3(12).

Table 5(12)

R E A S O N S	FREQUENCY
Negative	
Low standards/easy/flexible standard	10
Unplanned/wrong subject emphasis	5
Superficial/little depth	3
Low lecturing standards	1
Not practical enough	1
Not dynamic enough	1
Bad motivation of delegates	1
	22
Positive	
Good breadth of subjects	5
Challenging/worthwhile	2
High lecturing standards	2
Good framework for existing experience	2
More practical than MBA	1
	12

Once again the 1980 delegates contributed significantly to the results. 8 of the 10 respondants who mentioned low and flexible standards as a reason were from this year. Nevertheless it is evident that, in general terms, considerable disatisfaction exists regarding the standards of the course as a whole and its execution, even though the wide range of subjects has favourably influenced the attitudes of 5 delegates.

In Question 6(ii) respondants were asked to rate the overall academic standard of the course. Table A3.23 summarises the results. It should be noted that in this question, and in the balance of Question 6, response was requested on a verbal scale since it was thought more appropriate to amplify the question in this way as opposed to the previously used numerical scale. In doing the comparative weightings however, the same scale weights were used viz a 5 point left positive ranking.

It should be mentioned that the concept of academic standards, in terms of academic content; and other standards (e.g. discipline, flexibility of regulations, ambiguity of goals, etc) were repeatedly assumed by the respondents to be the same thing. This probably accounts for the apparent anomalies which are evident when the concepts of "standards" were further probed in Question 6(v). Question 6(ii) specifically asked for a rating of overall academic standards, while 6(v) enquired about the contribution of the University.

The results obtained for Question 6(ii) show a weighted mean rating of 2,71 and hence a marginal overall bias towards considering the academic content of the course as high. The the small number of respondants, and the considerable variation shown between the years should be borne in mind when assessing this statistic.

In Question 6(iii) respondants were asked to assess the overall capability of their fellow delegates. As shown in Table A3.24 the results obtained are very similar to the distribution obtained in 6(ii) regarding academic standard of the courses. Consideration was given to the strong negative attitude previously expressed that standards were flexible and hence a possible correlation with the standards of the delegates themselves was sought. However, since both distributions turn out to be approximately Normal and their means and standard deviations are similar, no significant correlation could be ascertained. The weighted means of the respondants assessment of fellow delegates was 2,86 and the hypothesis of an overall 'average' attitude to the abilities of the respondant's fellow delegates was made.

In Question 6(iv) respondants were asked to rate how the course extended them, with respect to the amount of time needed to successfully complete the IAP. 63% of the respondants indicated that the demands of the course were "about correct" and a mean rating of 3,08 was calculated. Table A3.25 refers. Once again the attitudes of the respondants appears to be essentially neutral or average.

In Question 6(v) respondants were asked to assess the contribution of the University to the course with respect to administrators, lecturers, thesis supervision, etc. As shown in Table A3.26 a rather flat distribution of responses was obtained representing an overall weighted mean of 2.41. Overall this response indicated satisfaction with the University's contribution to the course.

Respondants were then asked to amplify their comments regarding the topics rated in Question 6, namely: the course itself, academic standards, delegate standards, time demands of course and the University's contribution. The question was framed in an open ended format but the response was possibly influenced by being placed immediately following Question 6(v) since most replies tended to concentrate on the University's contribution. 31 comments were received from the 49 respondants of which the majority expressed a negative attitude.

	No.	%
Bad/inexperienced lecturers	8	26
Low/variable standards	8	26
Poor thesis support and supervision	7	23
Badly structured and administered	6	19
Tough Courses	1	3
Good lecturers	1	3
	31	100

It is probably significant to note that a considerable degree of unanimity existed amongst these responses indicating that the upgrading of these facets should be important in the formulation of a marketing

strategy. The upgrading of attitude from negative to positive amongst the disatisfied respondants is of prime importance since negative connotations of the IAP product are likely to be more pervasive to the potential IAP consumer, than the not very strongly expressed positive attitudes. Very similar attitudes to those shown in Table 5(12) emerged from this question. It becomes evident that respondants expressed an attitude indicating that variable and flexible standards negatively influenced their assessment of the IAP product. This is compounded by disappointment in lecturers' abilities and practical experience of industry. In this instance "standards" appeared to relate to Structural/Administrative standards rather than academic standards.

Question 7: Career Prospects

Respondants were asked to assess the influence of the IAP with regard to their career prospects.

Table 5(13)

Career Prospects

	Within present company	In Existing field	Change Field of employment
Helped career prospects	57%	80%	76%
Did not help career prospects	43%	20%	24%

Question 8: Characteristics of the IAP concept

In this section delegates were asked to highlight what they believed were the distinguishing features of the IAP concept and what factors they regarded as unique to the IAP. The answers to Question 8(i) and 8(ii) were requested in a free response format. Since the categorisation of responses received is prone to the researcher's bias

the tabulations presented below should be utulized with care. The full categorization is presented since it is fundamental to the formulation of the product profile.

In Question 8(i) the distinguishing features of the IAP concept as a whole were solicited. 65 Facets were extracted from the responses.

Table 5(14)

ITEM	FREQUENCY	CATEGORY
Part time	9	B
Run by Engineering Faculty for Engineers	8	A
"Manufacturing Mgt" rather than "Business Mgt"	8	A
Wide range of subjects	6	B
Technical versus Commercial Masters	4	A
Business Training for Engineers	4	A
Courses in Industrial Engineering	4	A
Watered-down MBA	3	B
Broaden Engineer's outlook	3	C
Middle instead of top management	2	C
Improved confidence for engineers	2	C
Supplementary rather than alternative to existing career	2	C
Short	2	B
Less course work and greater emphasis on thesis component of degree	2	B
Live lectures/interactive	2	B
Midway between MBA/M.Sc	2	A
Applied versus academic	1	A
Aims for productivity improvement	1	A

To clarify these responses each factor was categorized into the following groups:

Group A Emphasis on the technical/industrial nature of the IAP
Group B Emphasis on the physical "construction" of the course.
Group C Relate to personal aspects

When the responses are analysed utilizing these categories the following results are obtained:

Category	Number of Responses	%
Group A	32	49
Group B	24	37
Group C	9	14

Thus the respondents assessment of the distinguishing features of the IAP concept relate largely to the technical/engineering orientation and presentation and its emphasis on the 'industrial' as approved to the business environment. It is also interesting to note that only 4 respondants indicated that emphasis on the Industrial Engineering field is a distinguishing feature of the IAP. This corrolates with the motivational findings expressed in Table 5(9) where only 4% of respondants indicated that to study in the field of Industrial Engineering was part of their motivation for registering for the IAP.

In Question 8(ii) delegates were asked to highlight those factors which make the IAP unique compared to other courses. Many respondants appeared to have difficulty in answering this question and many merely wrote "as in 8(1)'. Of the 48 responses ultimately extracted 23% indicated that the course was unique in that it was a management course that was offered in the Faculty of Engineering. 19% answered that they did not believe the course was in fact unique while a further 15% thought that the emphasis on industrial and production management was the unique feature of the IAP. Once again the response indicated that,

in broad terms, the fact that the course was offered by engineers for engineers in an engineering environment was a unique factor. This concept has consistently emerged in all questions as a very strong influence and therefore should play an important role in the ultimate marketing strategy to be devised.

In Question 8(iii)(a) delegates were asked if they expressed difficulty in succinctly answering the question "What course are you doing at UCT?" 43% said that difficulty was experienced since the name Industrial Administration Programme did not convey any meaning to the questioner as say a B.Sc or MBA would.

Many of the respondants who indicated in part (a) that they have no difficulty in answering the question, in fact specifically indicated difficulty when answering Question 8(iii)(b) which asked how they answered the question. A summary of the comments received is presented in Table A3.27. 40% of the respondants said they described the IAP as "a sort of MBA"; various modifications of this such as "engineers MBA", "MBA Type engineering course" were also volunteered. None of the other descriptions showed any dominance, with the 2nd most frequent description (14% of respondents) offering an amplification of "Industrial Administration Programmes". It is clear from these results than no concise association of the course with a particular name exists and furthermore that delegates generally believe that it is unlikely that the questioner would be aware of the IAP. Additionally only 1 respondant indicated that his description of the course was "IAP". The search for an appropriate and consistent name for the IAP course, and the promotion of this name will be a major feature of the marketing strategy to be developed.

Question 9 posed three simple yes/no questions. The following responses were obtained:

76% of the respondants indicated that a course such as or similar to the IAP should not be compulsory for the attainment of Professional Engineers status

58% of the respondants indicated that Doctoral studies should be encouraged in the IAP direction.

72% of the respondants indicated that they wished to study further. Of these 33 respondants, 5 indicated that they wished to do an MBA, 5 wished to study in a business direction and 5 indicated they wished to undertake the M. Ind. Admin.

These questions were posed in an attempt to see if the response indicated that marketing emphasis could be given to Professional Engineering status, Doctoral studies or continuing education. The trend of these results indicate that no significant benefit would accrue by actively pursuing those ideas, although the 58% positive response to Doctoral studies could be an important image building factor for the IAP concept.

Questions 10 and 11 sought generalised comments from the delegate. Two sets of data are applicable to this presentation of results namely the mid 1981 salaries (Table A3.28) and the sphere of their current employment (Table A3.29). The balance of the information obtained will be utilised in later chapters, as will the input from Question 12 which requested ideas regarding the effective marketing of the course.

With respect to mid 1981 salaries the unweighted mean basic annual income of the respondants was R23 697 with a standard deviation of R3 607. When comparing Table A3.28 to Table 5(2), which shows a mean salary of R13 023 in 1980 terms, it can be seen that the IAP graduates have apparently received considerable salary increases (in the order of 60%). The averages should, however, be used with caution as the data for the two tables was not obtained from identical respondents.

The spheres of current occupation showed practically identical percentages as the data presented in Table 5(5). Of those respondants who indicated a job change had taken place subsequent to the IAP course practically all had remained in their existing sphere of operation.

Consolidation of Results

This section interrelates the salient features that emerged from the postal questionnaire sent to delegates, in the same way that the results of the analyses of the pre-course application forms were consolidated.

Since there are many features that have to be considered in this summary the most significant items will, for clarity, merely be listed.

- Press advertising and word of mouth are the predominant methods of learning about the IAP.
- 80% of delegates seriously considered registering for an MBA/MBL as an alternative to the IAP.
- Management expertise at post graduate level was a frequently expressed motivation of the delegates to study further.
- The IAP was chosen because it was part time and offered a wide ranging curriculum in an engineering environment.
- Delegates wanted to acquire expertise in law, accounting, finance, etc. to enable them to improve their career prospects and hence enabling them to move away from pure engineering into "management".
- To acquire formal knowledge of industrial engineering was <u>not</u> a significant motivation in the delegate's choice of the IAP.
- Academic content and high standards were considered as strong positive motivational aspects, but in practice have created a negative attitude subsequent to the course.
- The IAP academic standard was considered, on the whole, to be average but very variable and flexible.
- Respondants said the most significant characteristics of the IAP was that it was a part time course in Industrial management which was run by the Engineering Faculty for engineers.
- The IAP is not readily known and delegates have difficulty in verbally explaining what course they are doing at U.C.T.
- Many delegates describe the IAP as an "engineers MBA" to outside parties.
- Most respondants did not believe that an IAP type course should be compulsory for Professional Engineers status.
- Respondants indicate that they still wished to study further and doctoral studies in the IAP direction could be of interest.

This framework will be elaborated on when marketing profiles are developed of the IAP product and the IAP consumer.

5.3 COMPETITIVE ENVIRONMENT

The evaluation of the academic environment which is elaborated on in Chapter 6, indicates that to some extent a void exists in that no post-graduate course, apart from the IAP, exists which specifically seeks to educate technically trained people in the field of Administration. In particular those courses which may broadly be regarded as providing this type of service, are all based in Commerce/Business faculties and no deliberate attempt is made to re-create the engineering/scientific environment with which the technical graduate may be more at home. It is concluded therefore that this finding, combined with the strongly expressed motivation of previous delegates to remain associated with an "engineering environment", may provide a point of difference when the IAP product is repositioned as part of the formulation of a marketing strategy.

5.4 EVALUATION OF HYPOTHESES

In 4.1 various hypotheses were developed which served to provide a framework from which the method of study flowed. The summary results presented in this Chapter serve to clarify some of those hypotheses and an evaluation may therefore be made in this section on whether these hypotheses still have validity. This process of hypothesis formulation and evaluation is fundamental to marketing strategy design in general. This critical phase is demonstrated with reference to those hypotheses formulated for the IAP.

5.4.1 General Hypotheses

While the assumption made under this category were more of a scoping nature which bounded the study, they will nevertheless be briefly re-examined.

- that the IAP course has some relevance to technical Industry. As mentioned this phase was not specifically researched, except to the extent that it is established that a high demand for graduate engineers exists[42]. As a corrollory of this any avenue which serves to retain technically trained people, such as engineers, within technical Industry must be welcolmed. When this thought is combined with the delegates expressed motivations to move into engineering management while advancing their careers (cf Table 5(10)) it is believed logical to continue to accept the hypothesis that the course can have relevance to Industry if the various expectations of the market are ultimately met.

- that an evaluation of past graduates is an acceptable base on which to base the marketing strategy. A 67% response was received from the graduates postal survey, and also a high degree of consensus was shown on the topics covered; it is believed logical that this group of past consumers of the IAP product forms the only practical base from which to build a strategy. In the development of the target market it will be shown that this market segment represents a target market which has certain needs, which could be fulfilled by an IAP type product.

- that the IAP's appeal will be strongest amongst technical graduates. The relatively high rankings given to the fact that the course is engineering orientated, in both the structured and unstructured parts of the questionnaires support this hypotheses (eg. Table 5(6)). Additionally 96% of previous graduates have had technical degrees and this leads to reinforce the idea that a target market lies in this group of consumers. It is also of interest to note that only one applicant gave his motivation as acquiring a better appreciation of the technical function, having previously been employed in a sales/marketing environment.

- that a deliberate programme of image building and marketing emphasis is necessary. In Question 12 of the delegates questionnaire, which requested ideas as to how the IAP could be improved, it was consistently suggested that improved communication with the market be achieved. Certainly from the graduates viewpoint this is necessary. From the point of view of the various negative attitudes expressed towards the IAP (Table 5(12)) it is apparent that remedial work is

necessary if a product is to be offered to the market which will carry the support of the previous users of that product. Once the hypothesis is accepted that the course has relevance then the need to develop a more appropriate marketing strategy becomes axiomatic.

These brief reviews, when evaluated in the light of the results provided show that no reason has been found to discard these generalized hypotheses and they will therefore be used to help formulate the marketing strategy.

5.4.2 Hypotheses on strengths of the IAP

- common background of delegates is an advantage. From Table 5(3) it can be deduced that 54% of previous degreed delegates have been Civil or Mechanical Engineers. Another 25% were graduate engineers of other descriptions. Consequently it appears appropriate that the course construction can safely assume certain expertise, offering the advantage over competitive courses of assuming a certain basic pool of knowledge in a specific field.

- need for technical graduates to supplement technical training. Though this was strongly expressed in the pre-course application forms (Table 5(6)) where it was the 4th most important motivation; the structured questionnaire only produced a 10th most important ranking (Table 5(10)). However all the results presented prominantly highlighted that a strong motivation was to "acquire management expertise". This is believed to be the same motivation since little formalized management orientated courses form part of the conventional technical undergraduates' curriculum. On this basis the hypothesis still has relevance.

- that the IAP is not a "stepping stone" to new careers. In Table 5(10) it was shown that practically equal responses were received between those who wished to move away from engineering, and those who wished to continue in engineering management. As a result of the

research done it is believed that this hypothesis is not true for all past delegates, and that a significant portion believe that their prospects and career advancement need not necessarily be restricted to the engineering field. (See Table 5(11)). It is proposed that the IAP product be positioned such that the group who wish to remain in their existing professions are specifically catered for, and that the other group be considered as a welcome group but whose personal motivations are not relevant to the consumer profile to be developed. The hypothesis is therefore modified to the extent that it is realized that it is not true for a proportion of the delegates, but that it is maintained to assist in the product positioning exercise. If this were not to be done, and the hypothesis discarded then little significant difference could be developed vis-a-vis competitive courses.

- high academic standards are possible since the quality of delegates is likely to be high. It is apparent from Table 5(4) that only 3 delegates have received a First Class grading since the inception of the course (4%) while 61 (79%) have received Two Minus or Third Class Passes.

In addition Table A3.23, which requested delegates attitudes towards the academic standards of the course as a whole, showed a slight bias towards rating these standards as high. Paradoxically Table 5(12) yielded a result which showed that the most highly ranked negative attitude to the course related to low/easy/flexible standards. This possibly related to an impression that more advanced work could have been attempted given the capabilities of the group, as well as emphasizing that flexibility of standards to comprehend the group's abilities was occurring. No reason necessitates the removal of this hypotheses that a consistantly high academic standard can be expected from a group which predominantly consists of engineers. Furthermore this hypothesis, combined with the factual evidence of the relatively poor examination results in the past can possibly be used as a point of difference when positioning the product and establishing the product profile.

While no comparitive data has been obtained for competitive courses it is often stated that engineers consistently are good performers on those other courses.

- that the IAP affords the opportunity of specializing in the management of industrial enterprize. Probably the most significant attitude to emerge from the research undertaken was that the delegates saw the IAP as concentrating on "Manufacturing/Technical Management" rather than Business Management (eg. Table 5(14). Consistently in all the responses received from the various sources, this fact was highlighted as a distinguishing characteristic of the IAP concept. This hypothesis therefore has validity and can be used in the marketing strategy formulation. The utilization of the thesis element of the IAP course can obviously be used to promote this concept, since the opportunity exists to ensure that the theses themselves relate directly to "Industrial/Technical Management".

As an integral part of this distinguishing concept was the fact that the course was run "for engineers by engineers" (Q8(11)) and this reinforces the validity of the hypothesis made that the course concept has some degree of uniqueness, offers a previously unobtainable area of post graduate specialization, and is specifically designed for technically trained people.

- that the IAP is more concentrated, in terms of formal lectures than competitive courses. It is also offered on a part-time basis. Table 5(9) showed that the first and second ranked motivations for choosing the IAP were that it was part-time and short. This importance is confirmed in the weighted scale of the results of Question 10 which are presented in Table 5(10). Despite these results confirming that these were important motivational features of the IAP it is believed that currently this hypothesis has only limited utility in the marketing strategy design.

This is predominantly due to the fact that the course length of the IAP has been lengthened for the 1982 academic year, hence diminishing the difference between the IAP and other courses. In addition the availability of part time courses in 1982 (eg. UCT MBA) is considerably greater than the availability of such courses in 1976. Some of the earlier IAP graduates gave as their reason for doing the IAP "that no part time MBA course was available at UCT", and this could have biased the results obtained.

In summary then it is believed that while the hypothesis may have some validity it would not be prudent to construct a marketing strategy utilizing this premise.

5.4.3 Hypotheses on weaknesses of the IAP

- that the marketing goals of the IAP have not been fully comprehended in both course design and advertising strategy. A significant trend in all the results shown in this Chapter is that the IAP itself does not have a clear cut image. This trend is epitomized by the lack of a consistent designation for the course (43% of graduates felt that the IAP term did not convey any meaning to outside parties (Q8)).

Additionally, 'status, prestige and recognition" of the IAP was the worst ranked motivational factor isolated in Table 5(10); it is contended that this is a function of inconsistent product positioning and inadequate product promotion.

It was however in Q12 (where specific suggestions were requested) that regular mention was made of the need to adequately support the IAP with higher standards and promotional activitives. This response adequately supported the statistical response presented and highlighted the need to continue with a programme to devise a marketing strategy.

- that the basic courses in finance/management/marketing/etc. are more important in relation to delegates motivation than the Industrial Engineering Orientated courses. Table 5(10) clearly shows that formal training in finance/management/ marketing/etc. was a positive motivational factor while training in industrial engineering was rated as a neutral motivational factor. The industrial engineering facet also rated very poorly when comparing absolute frequency of response. For example, in Table A3.10 74% of graduates rated the finance/management/marketing concepts as "important and very important", while only 30% rated industrial engineering as "important or very important (Table A3.11).

It is of interest to note that in the categorisation of responses made in the data assimilation phase for questions such as Question 3 (Table 5(8)) graduates frequently made response such as "understand the other functions activities", "get training in management techniques", etc. These responses were broadly categorised under "Acquire Management Expertise" which became the top ranked motivated factor (32%) compared with the 8% who indicated they wished to acquire an industrial engineering qualification.

These types of results tend to validate the hypothesis made and confirm that it is important to emphasise the managerial expertise type connotations rather than industrial engineering type connotations.

- that it has not been possible to formulate consistent academic standards for the IAP In the responses received to Q6 1(b) virtually all the negative attitudes expressed related to low and flexible standards, and this trend is repeated in all the open ended or non structured questions which relate to this hypothesis (e.g. Q6 (v)). However, in Q6 (11) the delegates were specifically asked to rate the academic standard of the course and it was found that an "average" rating was probably indicative of the true attitudes of the respondents.

The inference that may be drawn from these findings is that flexibility and inconsistency of standards is probably distinct from the intrinsic academic standard demanded overall. It is consequently believed that the hypothesis has validity since the negative attitudes held related to this topic and therefore that opportunity exists to implement remedial action. In the full description of the hypothesis it was explained that the comparatively small number of registration of delegates is probably an important contributing reason for this tendancy towards leniency or flexibility of regulatory/administrative standards. The data presented in this Chapter also shows that the Department has thus far not had the opportunity of actually selecting delegates and all qualified applicants were encouraged to register.

When these two components of the strategy are linked it is apparent that the hypothesis made is firstly reasonable and secondly that it is capable of being corrected, provided a successful marketing strategy is devised.

- that the IAP does not have a distinct personality, and consequently recognition of the course has been impaired In essence this hypothesis is the same as the first hypothesis regarding weaknesses - namely that the marketing goals have not been full comprehended. In the structured questionnaire to delegates specific questions were asked as to how the graduates saw the IAP (Question 4 and Question 6). All the results obtained show that no consistent and uniform image of the course exists. In fact Table 5(10) shows that "status, prestige and recognition of the IAP" was a negative motivational factor when the graduates evaluated which course to select. It is therefore proposed that this hypothesis be accepted and considered as a component when formulating the marketing strategy.

- that the thesis section, which leads to the Master's Degree, has not been properly developed as an integral part of the IAP Table 5(1) shows that thus far 19% of eligible candidates have obtained the Master's Degree, yet the fact that a Master's Degree qualification was attainable was a relatively positively ranked motivation in Table 5(10). In addition, 91% of applicants indicated on their application form that they wished to proceed to the Master's Degree. Clearly scope exists for improving the progression from the course segment to the thesis segment. The unstructured comments scrutinised in Question 12 supported this viewpoint.

Given the nominal interest expressed in the Master's Degree, and the limited number of completed degrees, it is logical to accept that the hypothesis has validity.

The evaluation of hypotheses based on the results obtained provide a base from which a marketing strategy may be developed. The results in this Chapter primarily related to statistical data from the delegates' questionnaire and a compilation of facts from existing records held by the Department of Mechanical Engineering. Only a brief reference has been made as to the competitive environment and the market demand for the IAP and its graduates. These topics will therefore be discussed in the next two Chapters and subsequent to this a specific development of the marketing strategy will be developed.

The process of the formulation of a marketing strategy for a particular product or product range is specific to that problem. The detailed examination undertaken of the IAP can therefore only illustrates the type of process that may be considered in designing marketing strategies for similar post graduate courses.

CHAPTER 6

THE COMPETITIVE ENVIRONMENT

Before developing a marketing strategy it is necessary to fully comprehend the competitive environment in which the product is to compete. In this Chapter the competitive environment for the specific example selected, the IAP, is analysed to provide some of the information needed to create an appropriate marketing strategy. The competitive environments of all products are constantly changing and any survey can only illustrate the situation at a particular point in time. The exercise of analysing competitor's strategies and marketing philosophies is of paramount importance, and it is this fundamental analytical procedure which is illustrated in this representative example.

In Chapter 5 it was seen that 67% of the respondents to the IAP delegates questionaire indicated that they seriously considered alternate courses before finally registering for the IAP. Some 80% of these evaluated their choice against MBA/MBL type courses. It is therefore of importance to consider the various alternatives available to the potential IAP delegate, how these alternate courses met the delegates motivations regarding further study, and what particular elements exist which differentiate these alternate courses from each other as well as from the IAP.

In the particular group of consumers being studied the predominent characteristics is that the majority have engineering/technical degrees. In addition the desire to improve qualifications and knowledge at post-graduate level come through in the consumer research findings as a dominant motivation in studying further. As a result it is believed that the true alternate courses available to potential delegates are represented by these offered by Universities - this is validated by the fact that only 1 respondent indicated that he had considered a non-university course (Diploma of Business Administration offered by the Natal Teknicon). Consequently the main comparison will be done amongst the various post graduate courses offered by South African Universities.

The scan of the competitive environment is done considering the IAP as the pivotal product. On this basis the competitive products are considered in the light of the IAP consumer and product characteristics ascertained. In a similar way other post graduate course which have analysed their "internal" marketing characteristics could review their competitive environments - albeit with a different emphasis and scope. It is suggested that in the competitive market for academic courses imaging factors are of prime importance and it is this feature which will be concentrated on in the example being illustrated.

6.1 ALTERNATE COURSES AVAILABLE TO IAP DELEGATES

In this section each category of course (e.g. MBA) will be discussed in broad outline and then mention will be made of the various Institutions offering that course (insofar as it is available to potential IAP delegates) and what particular characteristics are associated with each Institution.

It should be mentioned that the assumption is made that the IAP is a nationally based course and that it could attract delegates from all regions of South Africa. Currently it is essentially confined to delegates residing in the Western Cape - this, however, may not be the long term objective and the competitive evaluation should therefore consider the entire geographical area of Southern Africa. Also of importance is that the potential IAP delegate is essentially looking for a part-time or corrospondence course - the part-time nature of the IAP rated as a very important motivational factor in the IAP delegate's choice of the IAP. Therefore the evaluation of alternate courses will focus on those courses which provide the delegate the opportunity of continuing his normal employment while studying further.

6.1.1 Bachelor of Commerce

This type of course essentially embraces all other courses, such as Bachelor of Business Science, Bachelor of Economics etc., which offer the student the opportunity to study business related subjects in some

depth. Where appropriate study at post-graduate level may also be an alternative for the potential IAP delegate. These type of courses are offered on a part time or correspondence basis by most South African Universities with the undergraduate degree normally taking 4 to 5 years to complete. The essential characteristics of these courses are therefore:

- long time period before attaining qualifications
- specialization in major subjects
- prescribed number of examinable courses/credits to be obtained before graduating.

The prospective IAP student is not likely to consider study towards these B. Com type degrees as a real alternative to the IAP since the time frame, depth of study and objectives of the B. Com type courses do not meet the type of driving motivation discussed in Chapter 5.

The University of South Africa gives a succinct rationale for the existence of the B. Com type courses(43)

> "especially in the business sphere a great need for well trained managers exists. There already are a number of University courses in existence by means of which training is given in management systems on an advanced level as for example, the MBA and MBL type degree courses. These courses satisfy a basic need for the training of managers desiring a general background and integrated knowledge of the entire management spectrum - usually top management. There is however also a considerable demand for managers who are specialized in a specific field. This need is continually growing and becoming more urgent as the business world has to cope with ever more complex problems and the desired degree of specialization increases".

While the above goes on to indicate the necessity for specialized academic education on an advanced post graduate level (B. Com (Hons), the differentiation between the MBA/MBL/IAP type courses and the B. Com type courses is valid

Particularly in the case of the IAP where the target market has evolved as the middle management type delegate, it appears that in depth subject knowledge is not required or desired by the delegates. We therefore conclude that the B. Com type courses, for most potential delegates, is not a real substitute course for the IAP but rather a distinct and different alternative. As mentioned in Chapter 5 only 3 respondents (8%) to the postal questionnaire indicated that they had seriously considered the B. Com as an alternative prior to registering to do the IAP.

6.1.2. Master of Science

Practically all IAP delegates are eligible to enroll for a Master of Science degree and it is therefore necessary to evaluate if the M.Sc forms a significant part of the competitive environment in which the IAP operates.

By selecting a M.Sc direction the potential IAP delegate will also be selecting a very narrow field of specialization which will probably enhance technical capabilities and certainly develop analytical abilities. For those delegates who seek further technical knowledge and/or intend to remain purely in a technical field the M.Sc degree - be it lecture based or thesis based - has obvious advantages. In evaluating competitive products to the IAP the delegate's motivation for ultimately selecting the IAP must be borne in mind. Table 5(10) listed these motivations which reflect the primary motivations as being:

- prospects and career advancement
- part time
- move from engineering to generalized management
- formal training in accounting/finance/law/management etc.

When this list is examined it is seen that the predominantly specialized technical nature of the M.Sc type courses don't really meet the last 3 primary motivations listed above. It is dubious if M.Sc courses can be considered as an actual competitor for IAP delegates for this reason. Some doubt also exists as to whether, in the non-academic world,

prospects and career advancement of the delegate would be enhanced by the attainment of a M.Sc type degree. This is particularly valid in the case of the majority of potential IAP delegates who have had 5-10 years practical experience in the technical and industrial sphere, since at this stage of middle management the differential value of B.Sc vs M.Sc to potential employees is small. In addition it should be mentioned that 13% of IAP graduates have already obtained Masters or Doctoral qualifications prior to commencing the IAP.

If this hypothesis is accepted it is then logical to expand the concept and indicate that the conventional M.Sc courses in all engineering disciplines form a distinct and separate alternative for the potential IAP delegate. Since the IAP delegate is seeking to bridge the gap from a purely technical education into "management" he would not achieve this aim by proceeding with a M.Sc in the conventional form. This discussion has comprehended the majority of M.Sc options offered by Engineering and Science Faculties at South African Universities; there are however certain specialised Masters degree courses in Industrial Engineering which may be said to meet some of the delegates motivations. These exceptions, and their validity as competitors for the IAP delegate will now be discussed.

Various universities offer specialised M.Sc courses designed to meet a particular need. For example the University of Cape Town offers an Industrial Engineering Programme, which essentially is a post graduate in-factory training course offering theoretical and practical experience in industrial engineering. This course offers the new graduate in engineering immediate exposure to a wide variety of actual production processes and problems while still being strongly linked to an academic environment. On examination therefore this Industrial Engineering Programme aims at an entirely different target market (the recently graduated engineer). In addition this course seeks to add practical experience to the theoretical background obtained at University, which is the opposite objective to the IAP which demands "the essential qualifications for the course in that the entrant should already have spent some time in industry".(44) Considering the different curriculums offered, and the type of training offered it is unlikely

that the motivations of the potential IAP delegate would be adequately met by following this particular Industrial Engineering Programme.

Stellenbosch University also offer a M.Eng. (Industrial). The objectives of this course are very similar to those of the UCT course and once again attracts newly graduated engineers with a consequent average age of 23/24 years. In the questionnaire completed by the University of Stellenbosch the interesting comment was made, that the students primary motivation for doing the course, was "an interest in Industrial Engineering and Management. Most students choose these courses after also considering doing an MBA". In this case the interest in Industrial Engineering dominated and the younger candidate opted to obtain the vital Industrial Engineering background.

While a survey could be done on all the alternative Masters level courses offered in Industrial Engineering it becomes clear that, since the formal study of Industrial Engineering is not a positive reason for the actual IAP graduate having done the IAP, the various Industrial Engineering courses are not really a powerful competitor of the IAP course. While the Industrial Engineering course examples given above are only presently offered on a full time basis, it is still believed that the same conclusions would be reached even if part-time study facilities are available.

In summary therefore the pure and modified M.Sc courses are not considered to offer the IAP delegate a real alternative to meet the primary motivations expressed regarding their reasons for studying further and for choosing the IAP in particular.

6.1.3 Master of Business Administration/Master of Business Leadership

In the delegates' questionnaire discussed in Chapter 5 it was revealed that 66% of delegates seriously considered applying for a MBA course and a further 14% indicated that the MBL had been seriously considered. In the light of this finding it is obviously important to carefully examine the various MBA type alternatives that were available to the IAP

delegate and furthermore try to see what unique characteristics exist for the IAP course which might make it an effective competitor in this market of Master's level "administration" related degrees.

The first business school started in Cambridge, Massuchusetts in 1908, and the Harvard University Graduate School of Business for many years set the standards on which many other business schools in the USA modelled themselves. The first University to offer a MBA degress in South Africa was Pretoria University in 1948; this was on a part time basis and offered in the Faculty of Commerce. There was no full time school of management in South Africa until 1966(45) when the University of Cape Town set up the Graduate School of Business. By 1981 there were 6 South African Universities offering MBA degrees, UCT, Witwatersrand, Stellenbosch, Potchefstroom, Westville and Pretoria. (46) In addition the University of South Africa offers a 4 year correspondence course leading to the Masters Degree in Business Leadership (MBL).

UNIVERSITY OF CAPE TOWN

"The MBA at the Graduate School of Business is a concentrated experience of the important disciplines that make up modern management".(47) The UCT course seeks to expose delegates to global trends and to establish an ability in the delegates to creative analytical thinking. The course is aimed at top management and markets the Cape Town MBA as being able to handle top level thinking and decision making in an essentially business environment. Probably the major differences of the Cape Town MBA vis a viz other South African MBA's are:

- Its stress on international participation both of delegates (approx. 20% have been of foreign origin), and of visiting lecturers, and of links with similar overseas institutions.
- The wide geographic market from which it draws its delegates in South Africa (e.g. 41% of the delegates between 1966-1976 were from the Transvaal.)
- The high percentage (45%) of delegates with engineering and technical backgrounds.
- The effective and consistant marketing of the Cape Town MBA course.

The 1980 Brochure of the UCT Graduate School of Business describes the major objective of the MBA Programme as the development of the student's ability to deal with new problems in business management. Throughout the brochure the emphasis is on general management and no attempt is made to indicate a specialisation in any particular field of management. Thus the objectives are aligned to creating a decision maker, but with no particular field of learning given any priority (e.g. The Technical Reports cover a wide and diversified field). This point is of importance when the other MBA courses are considered. In addition the delegate profile in terms of age, work experience, previous qualifications, previous positions etc., support the view that a wide variety of backgrounds is intrinsic to the UCT course and that no particular delegate profile is catered for. The criteria appears to rest on ambition, motiviation and an enquiring mind - the high percentage of technically qualified delegates is not deliberately catered for.

THE UNIVERSITY OF STELLENBOSCH

The Graduate School of Business of the University of Stellenbosch has adopted a different approach to that of UCT in that it sees that special skills have to be developed "which will help to ensure success in our multinational, bilingual and rapidly changing business environment".(48) In addition the University has started to offer specialised MBA's in the fields of Manpower Management (in collaboration with the Institute of Personnel Management), Entrepreneurship, and Executive Management. The 1981 Brochure goes on to describe the main aim of the Graduate School of Business as being "to turn outstanding men and women into dynamic managers specialising in the fields of their own choice and interest". Apart from this emphasis on specialisation within the South African society it is interesting to note that 43% of Stellenbosch MBA's 1st degrees were B.Com or B.Econ. and the majority had previously occupied positions in the financial and marketing spheres. This is opposite to UCT where the manufacturing sphere is predominant.

Therefore while the Stellenbosch MBA does not appear to differ in subjects offered there is a difference in emphasis. This emphasis is centred on the" direct and immediate application of gained knowledge and skills in a turbulent political, social and business environment". The Stellenbosch MBA represents itself as being developmental for the middle manager and his environment. However, its single greatest point of difference is in the fact that Stellenbosch offers different types of MBAs and sees the necessity of offering specialist types of MBA's. This trend suggests a deliberate marketing stance and an attempt to differentiate the Stellenbosch MBA from other comparable courses. For example the press advertisement for the Executive MBA specifies that special opportunities exist for engineers within the broad concept of the executive MBA.

It is not suggested that the above comments include a definitive difference between the two MBA courses examined thus far, but rather that potential delegates are ostensibly presented with various courses that are promoted on having clearly different objectives. It is in this context of differential product imaging that these courses are being examined.

THE UNIVERSITY OF THE WITWATERSRAND

The Witwatersrand MBA is similar to the Cape Town MBA in concept and scope. No statistics were ascertainable on past student profiles but it is probably safe to assume that the delegate profile is essentially similar to that of Cape Town but probably with a greater percentage of delegates being executives from large corporate undertakings.

If the advertisement for the Witwatersrand MBA that appeared in the Financial Mail on the 1st September 1981 is examined the following motivational elements are presented in the copy:

- advancement and earnings potential
- confidence and leadership acquisition
- professional image and inherent prestige

The Witwatersrand MBA is different from the MBA's examined thus far in that it requires a longer period of study e.g. 17 months full time versus approximately 11 months full time at Cape Town. No claims are made in the Wits MBA towards any field of specialisation and the whole tone of the marketing message is towards aspiring top managers. No great play is made of the international nature of the course as is done in the Cape Town MBA. In essence it may be said that the marketing message is one of prestige, professional necessity, and essential for career development.

THE UNIVERSITY OF PRETORIA

The University of Pretoria was the first university to offer an MBA course in South Africa and hence can claim over 30 years of experience in the development of its course. The 1981 Pretoria brochure describes the objective of their MBA course as being the bridging of the gap between the functional skills which the graduate has previously acquired and an increasing demand of the embryo manager for acquiring managerial skills as his responsibilities increase. The brochure goes on to say that a particular feature of the MBA programme of the University of Pretoria is that special attention is given to the development of those particular personal attributes that a successful manager should have. This distinction is of interest since the emphasis is laid quite clearly on the development of the manager in his environment rather than on a formalistic acquisition of techniques and problem solving abilities.

On examining the product imaging portrayed by the Pretoria MBA programme it is found that the stress fell on a middle management type developmental programme and that few assertions are made to indicate to the delegate that top positions, wealth and prestige are likely consequences of the MBA acquisitions. The Pretoria target market is probably highly influenced by the immediate geographical market which would centre on largely bureaucratic undertakings - Civil Service, quasi-government undertakings, etc. When examined in this light the marketing stance is logical when cognisance is taken of the restricted or prescribed advancement opportunities available to the MBA graduate should he stay within that environment.

In summary therefore a low key, pragmatic and essentially practical programme is presented to aspirant delegates.

POTCHEFSTROOM UNIVERSITY

The 1981 Brochure describes the Philosophy of the Potchefstroom MBA as being the development of delegates in generalised management without specialisation in any particular functional area. This Business School specifically sees general management/business management as its specialisation area. Finally the programme is intended to convey to the student the necessity of considering his business activities within the bounds of certain ethics and morals. This latter product image is unique to the Potchefstroom MBA.

According to the figures provided by Potchefstroom University's response to the postal questionnaire nearly 40% of its delegates possessed B.Com type degrees, while 17% had engineering degrees and 10% agricultural degrees. The interesting comment is also passed that more than 60% of Potchefstroom MBA students gained their first degrees at other universities. The geographical area from which the delegates are drawn is described as PWV plus Northern Free State plus the Western Transvaal.

The product image is promoted as being based on the necessity of developing attitudes, skills and knowledge with particular reference to the South African business world. However, an essential component of the image is that these skills are to be bounded by the principles and standards on which Potchefstroom university is based.

THE UNIVERSITY OF DURBAN - WESTVILLE

The University of Westville offers an MBA which attracts some 20 - 30 students per year. While the initial rationale behind the establishment of the University was to serve the Indian community, the MBA course in particular has attracted delegates from all communities in the area. As such it must be considered that it is part of the marketing mechanism.

The marketing approach adopted by their Graduate School of Business may be described as low key; no formal advertising is undertaken; the course caters for junior to middle managers; seems essentially career orientated; and in the words of the Director of the Graduate School of Business "we do not train managing directors - we provide young people (23-29 years) with a very strong theoretical foundation supplemented by ± 20% case work." Once again the overall objectives may be described as generalised and not directed at any particular functional discipline.

THE UNIVERSITY OF SOUTH AFRICA

The Master of Business Leadership course which is offered by correspondence at the University of South Africa is probably the most broadly based MBA type degree offered in South Afraica. This broad base applies not only to the range and depth of subjects offered but also to the ability of all potential delegates without limitation of geography or race to participate in the MBL programme. Once again the MBL course objectives aim at providing a general management approach to policy and decision making without aiming for any particular functional specialisation. This aspect of specialisation according to the University of South Africa, is provided by B.Com (Honours) courses.

The foreword to the 1981 Brochure of the School of Business Leadership states that the rapid economic growth of South Afraica has resulted in a large demand for professional managers. Existing training is either too specialised, or academic and non-practical. Consequently the MBL course aims at integrating knowledge over a wide range of subjects. Being a predominantly correspondence course UNISA places great emphasis on the study group and joint work by this study group based on the formal instruction provided in the first year of study.

In terms of product image it is probably true to say that the MBL has not tried to compete directly with the MBA, especially with regard to the choice of name. Efforts are not directly made to influence any particular group of potential delegates and the school merely tries to maintain a relatively high academic profile by participation in formalised sponsored studies, government commissions etc.

Therefore when considering the range of MBA/MBL options offered it is evident that a difference of emphasis does exist between the courses:

- top versus middle management;
- development of techniques versus personal development;
- business efficiency versus business morality
- local versus international flavour
- commercial versus bureaucratic
- specialist versus generalist.

Whether any intrinsic difference exists in content is not really the issue here. What is important however is that the image of the MBA seems to be in the process of evolving into "a Stellenbosch executive MBA", "Unisa MBL", or say "The Witwatersrand MBA". If the premise is accepted that each course is striving to differentiate its product to attract students of the requisite qualities, then the point arises if another post graduate product such as the IAP can offer a product point of difference which can make it somewhat unique in comparison to the other MBA's/MBL's.

6.1.4 TECHNICAL COLLEGES AND CORRESPONDENCE COURSES

Various Technical Colleges (e.g. Natal and Cape Town Technikons) offer courses in Industrial Administration; in addition correspondence courses in Production Management are offered by, for example, the Production Management Institute of South Africa. While these courses do often form part of the type of specialised training that the IAP seeks to utilise as its reason for existence, the motivational criteria of the delegates as formulated in Chapter 5 are not met by these type of courses in South Africa. (The distinction "in South Africa" is made since the Production Management Institute does prepare candidates for admission to the Master Degree Programme of Brunel University).

In the same way that the M.Sc and B.Com degrees can be rejected as effective competitive products due to their specialist nature, so too can these courses since the majority of delegates motivational factors are not met. In addition the prestige and career developmental aspects are lacking from these non-university courses. In consequence of this it is suggested that these types of technically based courses, while being important, do not really cater to the type of delegate who will consider the IAP course.

The other "management" type courses offered by say Technical Colleges while satisfying the desire for knowledge of commercial/business subjects are not likely to be presented in the framework of an industrial/technical environment. Once again one of the primary motivational factors of IAP delegates is lacking.

6.2 THE IAP AND ITS COMPETITORS

The previous sections have briefly sketched some of the alternatives which the potential IAP delegates may consider. Each competitive course could be analysed in far greater depth, but this has not been done since only a certain aspect really has relevance i.e. how the other course portrays itself as providing those criteria which the IAP type delegates regard as positive motivators. In the case of MBL/MBA type courses most of the motivations were present despite the varying emphasis placed on various elements of the particular programmes. No other courses were found to be true competitors of the IAP in terms of the expressed motivations of past IAP delegates.

The next question that has to be answered is whether the IAP offers a sufficiently unique product which will ensure that the IAP remains in the market place. This question is of fundamental importance to the development of the marketing strategy. The results of Chapter 5 (in particular Table 5(10) and Table 5(11) show that while the structured response regarding delegates motivation could be satisfied by any MBA/MBL course the unstructured motivational responses showed a particular characteristic. This was that the course was "run

specifically for engineers, by engineers and was engineering oriented". The possible positioning of the IAP product versus its competitors should therefore be considered in the light of this finding.

Of all the courses considered only the Stellenbosch Executive MBA claimed that "special opportunities exist for engineers". The balance of the courses are designed with the non-technical person in mind and are structured in such a way that generalised management principles are stressed, albeit with the help of sophisticated mathematical and analytical techniques. Opportunity therefore exists for the IAP to position itself in the market as an industrial management course which is designed for the technical person who has to make technically based managerial decisions. These decisions could be considered to be based predominantly on the delegates previous technical training which has now been overlayed by an appreciation of the principles of the business and economic sciences. Of importance is that while this process of overlay is feasible within a short period it is doubtful if the reverse overlay is truly possible viz the overlay of technical implications on the commercially qualified delegates. If this is accepted then the IAP does have the capability of offering a logically unique alternative to the MBA/MBL courses. This uniqueness, which would have to be actively developed, therefore consists of the following factors:

- offered in an Engineering Faculty for engineers.
- concentrates on the Industrial as opposed to the Business environment.
- considers basically technical problems which have however business components in them.

Bearing in mind the previous hypothesis that a growing trend is emerging whereby "specialist" MBA's will increasingly be offered, it is logical to consider that a purely "engineering" MBA will also be valid, attractive and necessary to potential delegates. From an employer point of view an "engineering" MBA probably would also have considerable attraction.

The development of the IAP product profile will be considered in the next Chapter and will proceed on the hypothesis that the IAP concept has validity; that this concept is not really catered for at present in the South African academic market; and that technically qualified people who are motivated to register for the IAP probably believe that MBA/MBL type courses are the only other products which could properly satisfy their overall motivations. In addition the IAP at the University of Cape Town is to some extent unique in that it is currently the only post graduate course in South Africa offering the particular blend of technical and management environment.

Geographical influences in reality play a significant part in the delegates actual choice of course. The delegate originating in the Western Cape has the choice of 2 MBA's, the MBL and the IAP, all of which are offered on a part-time basis. This relative freedom of choice makes it possible for product differentiation to be considered as a marketing factor in promoting the IAP course. Indeed it is of greatest importance to the continued existance of the IAP that a distinct and unique product personality be developed and that the IAP is actively evaluated by its delegates as a viable alternative to the different MBA/MBL competitive products.

6.3 CONCLUSION

The analysis of possible competitors has shown that while the prospective IAP delegate is faced with many alternatives, many of these alternative courses do not adequately satisfy the motivational needs of the IAP delegates as established in Chapter 5. While the IAP is not unique in its course, the concept does have the potential in an environment of increasing specialisation of its competitors, of developing a specialised technical image catering specifically for the needs of engineers and of industry.

These conclusions are based on the assumption that the past delegates are representative of the motivations of the target market to be selected. While this may be arguable the marketing strategy design being demonstrated in this study selects target markets and positions the product such that the needs and expectations of the target market are satisfied. Consequently the group of graduates surveyed appear to identify as a distinct group, and the product is developed to satisfy their needs. This product may still be called the IAP, but in fact could differ in concept from the original course objectives.

The survey done in this Chapter has concentrated on an evaluation of market needs and existing ways of satisfying these needs. The void that exists in the academic market for post graduate management education specifically for technical people appears capable of being exploited. The marketing strategy being formulated will comprehend this.

Not only the competitive environment needs to be considered in marketing strategy design, but also the demands of the market for the product. This aspect of market demand as a component of strategy formulation will be considered in the next Chapter - with the IAP again providing the illustrative example.

CHAPTER 7

MARKET DEMANDS

In Chapter 2 a survey was presented of consumer's behaviour, their expectations, and needs. In this Chapter the demand of the various consumers for the IAP and the IAP products will be reviewed within the context of the behaviour patterns previously outlined. In terms of the EKB model, which forms the theoretical basis of the Strategy being delineated, a survey of market demands correllates with the amplification of environmental influences. The marketing process being demonstrated in this Chapter therefore concerns itself with a consideration of the potential of the market, and how this potential might influence the strategy formulation.

The concept of "the consumer" is not only represented by an entity which physically initiates the process of acquiring a specific good, but also includes activities such as the purchasing of labour by an employer, or the utilization of a service provided to the community. The IAP course operates in a complex market environment with the consumer being represented by two different entities.

Firstly there is an entity represented by business, industry, government and the professional community - the needs of this consumer may manifest itself in a demand for graduates of the IAP course. Secondly there is the technical graduate who is the consumer for the IAP course itself. There are thus two distinct consumers who need to acquire two different products which cater for different market segments.

While it is conceptually possible to differentiate these market segments it should be remembered that in terms of the research carried out "career advancement" was one of the primary motivations for deciding to study further and for selecting to register for the IAP. Consequently if an increasing demand for the IAP graduate becomes apparent then it is likely that a corresponding increase in demand for the IAP course itself

will also become apparent. Cognisance of this interelationship should be taken since it is a primary task of this study to increase the demand for the IAP course itself, and this therefore may also be done by increasing the demand for the IAP graduate by Industry.

Each of these market segments has a variety of needs and also various expectations of how these needs are going to be met. These needs and expectations will be reviewed and a summary provided of alternate ways currently available to meet these needs. Finally there are certain restraints which prevent the optimum utilization of these alternatives, and reference will be made to these restraints as they effect the development of a marketing strategy for the IAP.

7.1. THE ENGINEER IN SOUTH AFRICA

The field embraced by the term Industrial Administration has already been discussed in 3.6, and our evaluation of market demands will focus on the concept previously developed. Namely the provision of lower to middle level technical managers who are trained in techniques that predominantly relate to the efficient management of the technical sector, but who are also capable of a well balanced appreciation of the enterprize as a whole.

The engineer with 5 - 10 years experience has in the past proved to provide the biggest demand for the IAP products (see Chapter 5) and it is therefore appropriate to consider the position of the engineer in South Africa when probing market demands for the IAP and for IAP graduates.

7.1.1 Demand and Supply

The Straszacker Commission [50] clearly showed that there was a direct correlation between the rate of growth of a country's economy and the growth of the engineering profession and this is reflected in the fact that the demand for engineers grew at only 1% per annum between the years 1973 - 1977 during the downturn of the economic cycle. In the recent economic uprising there has been a commensurate ratio of increase

of demand for engineers to the extent that currently the demand for engineers has been about twice the supply, despite the fact that local graduates in absolute terms increased by 40% between 1972 and 1981 and that the supply has been considerably augmented by immigration(51).

On average each graduate engineer, irrespective of his discipline has two jobs open to him and this furthermore assumes that immigration continues to contribute a significant (± 20%) share of the supply of professional engineers. Quantitatively (according to Lloyd etal)(51) the proportion of the total demand which should be met by 1982 are:

80 - 85% in chemical engineering
75 - 80% in agricultural and electrical engineering
65% in mechanical and mining engineering
55% in metallurgical engineering
40% in civil engineering

Suffice to say that a very real demand exists for the professional engineer in South Africa and that the supply, particularly in the light of there being no existing engineering facilities at Black Universities, is inadequate to meet the demand.

Allied to this need for the professional engineer, the National Productivity Institute of South Africa forecasts a need of 700 000 management and supervisory people by 1987(52) and this demand is unlikely to be met from existing resources and educational institutions. This shortage of supervisory personnel is illustrated by the ratio of supervisor/manager to worker in South Africa of 1:42 compared with 1:16 in Japan, 1:11 in Australia and 1:6 in the United States.

Given that there is this short supply of both engineers and management personnel what influence is there on the demand for the IAP graduate and for the IAP course itself? In the short term the supply situation has to be taken as a reality and there are therefore two fundamental objectives which "consumers" of technical manpower have to consider:

- Firstly to ensure that the technical personnel's expertise is not lost to the economy by "moving out of engineering into management"
- Secondly to raise the management abilities of engineers such that they are better able to cope with the wider span of control existing in South Africa.

It is therefore evident that Industry, business and Government should have a great incentive to ensure that graduate engineers are also competent managers while at the same time retaining their engineers in the technical sector in which they are trained to operate. Seen from this point of view the IAP should satisfy the direct needs of industry and the graduate: industry will get a person who is effectively able to manage within an industrial environment while the IAP graduate's expectations will be met in that he is likely to rapidly move into an engineering management position and away from "pure engineering". Chapter 5 showed that this motivation existed amongst past IAP graduates. Pure engineering may relate to fields like process engineering, safety and loss control, design, etc.

Since the demand for engineers in South Africa greatly exceeds the supply it is of paramount importance that the engineering profession is made to be attractive to potential engineers. The IAP can serve as a valuable tool in providing engineers with the necessary bridge between engineering and management, and consequently retaining talented engineers in positions where their technical experience and expertise may still be utilized.

7.1.2 Training

Since the graduate engineer is being used as a model for the typical IAP candidate it is sufficient to say that little attention is given in the undergraduate curriculum to non technical subjects, and that graduates often express the need to acquire knowledge that will assist them to comprehend other functions. Chapter 5 results showed that the IAP graduates rated the acquisition of this type of management expertise as

the primary motivation for studying further. While it is not within the scope of this study to comment on the efficiency of technical and vocational training in South Africa, it is evident that industry and graduates experience a very real need to supplement the original a a emi raining after 5 - 10 years experience has been obtained. Professor W L Rautenbach states in a paper presented at the conference of vocational training and education held in June 1981 that

> "the present academically orientated systems of education, despite their growth, are not designed for the needs of this developing country. Although industry is greatly interested in vocational education it takes place in a rather ineffective and ad hoc way"(53)

Industry itself does not take a leading role in motivating the technical graduate in mid career to supplement his education into management fields. While often providing monetory incentives and tacit encouragement to progress education, no concerted training programme has been developed by industry/universities/professional societies. It is also apparent from the comments of the IAP delegates who responded to the postal questionnaire (Chapter 5) that 76% felt that courses such as the IAP should not be a mandatory requirment for registration as a Professional Engineer. This attitude probably stems from the historical fact that no demands have been placed by employers on the pure engineers to acquire additional management training.

It therefore appears that while the demand for engineers remains high, and the demand for engineers with management training is increasing, little formal requirements are being specified for the latter's supplementary educational training. If the hypothesis is accepted that industry needs to retain and develop their technically qualified people it is probably true to say that scope exists to solicit extensive co-operation from the technical sector for courses such as the IAP since they are designed to keep the IAP graduate operating in a technical supervisory/management capacity. This aspect of training will be important in developing a marketing strategy.

Training in the field of "pure engineering" at post graduate level is highly developed but normally specifically applied to the conventional academic disciplines. The demand for engineers in South Africa is such that it also appears necessary to cater for those engineers who do not wish to further their training in an engineering discipline but who wish to broaden their business knowledge but by building on a technical/ engineering base. Training opportunities in a strictly engineering sense, are limited in this direction, as has been demonstrated in Chapter 6.

Potential therefore exists to promote an IAP type course as satisfying a demand, both by industry and graduates, for supplementary training of engineers in management and industrial engineering.

7.2. THE NEEDS OF THE MARKETS

The various needs expressed by the IAP graduates in their responses to the various questionnaires are, to some extent, an expression of the demands being made in the market place. In this instance the market place is represented by technical industry. In amplification of this thought it may be repeated that prospects and career advancement were high on the delegates list of ranked motivations to do the IAP course, and it is therefore assumed that a need has manifested itself in the ultimate consumer of the IAP graduate, which is being expressed by the motivated IAP delegate. (While non-career based or personal needs are also factors they did not show significantly as positive motivating factors (Table 5(10)).

A career based type of motivation is typified by industrial and business undertakings who seek to develop their engineer's skills in administrative and management since invariably the graduate engineer finds himself in a supervisory/management position within 10 years of graduating. Industry in general is beset by a critical shortage of engineers and consequently is loathe to lose any engineers into non engineering fields, while at the same time recognising that it is the exception to find an engineer who is totally committed to remain in pure

or academic engineering and who does not want to widen his career scope. It is therefore believed that a need exists in Industry for any type of training which is specifically directed at the engineer and the potential production manager. Such an educational orientation serves the dual effects of satisfying the engineer's aspirations to widen his capabilities while at the same time keeping the now highly trained engineer in the technical environment.

The hypothesis was previously accepted that technical business and industry have a very real need for the continued running of courses such as the IAP. While this need is probably not specific it is evident that considerable pressure from industry has been, and can be, exerted on engineers to continue to study further in the generalized field of management. The IAP syllabus structure could therefore be designed to meet a real need of business and industry and this aspect can be exploited in the effective design of a strategy for promoting the IAP concept.

While the previous paragraphs have concentrated on the needs of the industrial sector other segments of the market also have needs which can be satisfied by courses such as the IAP. One of these segments is that of the academic institutions. In particular the Universities have considerable difficulties in obtaining adequate finance to embark on the type of programmes which they consider ideal. The financial restraints which constrain Universities are well documented and as a result Universities have to increasingly be selective regarding expenditure and expansion of the field or number of courses offered for academic purposes. As a result of this it has become necessary to "commercialize" various courses and offer these courses on a wider basis for non degree purposes as a profit generating excercise. In particular the Business Schools in South Africa utilize the income from so called "short courses" to subsidise their MBA courses which are regarded as the primary reason for the existance of the Business School. In addition the present subsidy formula makes it particularly important to faculties such as Science and Engineering, which currently only run a limited number of "short courses", that an adequate number of

post graduate students are registered each year - the financial and staff benefits which flow from an increasing head count of post graduate students is substantial. Therefore a need of the academic institutions is satisfied if courses can be developed at post graduate level which are sufficiently attractive to the technical graduate that they will be enticed into remaining in those faculties. Previously only the 'pure' scientist or engineer would be motivated to proceed to post graduate studies and the development of courses such as the IAP considerably expand the options open to the technical graduate. The academic institution financial needs are therefore alleviated by courses such as the IAP.

Academic institutions have a further very real need and that is to ensure that adequate liaison is maintained and developed with commerce and industry. Engineering and Science Faculties have a need to develop a continuous communication with industry regarding their needs and problems and to ensure that curricula and training programmes are consistent with actual needs of the market place. Here again courses such as the IAP, offered in Engineering Faculties develop the link between the University and industry in two ways:

In Table 5(2) it was shown that the mean age of IAP graduates was approximately 31 years, which implies that IAP delegates typically have 5 - 10 years experience and are reasonably highly ranked in their companies hierarchy. Certainly they would be in a position to provide practical input back to the Faculty regarding problems experienced and solutions found. Also those delegates would themselves be a definite bridge between the University and the particular company whereby joint projects, training schemes, etc could be developed. Such co-operation is vital for the effective functioning of the practical scientific disciplines.

Secondly the Engineering Faculty, since its field of subjects offered is now considerably widened, and it is in close contact with a wide field of diversified industry, has the ability to draw on specialist non academic lecturers from industry. For example the Faculty can more

easily arrange experts in the field of Safety and Loss Control, Project Management, Industrial Relations, etc., to lecture on the various courses. The establishment of an effective panel of outside experts which may be useful for both consulting and academic purposes is a very real need of the academic Institutions. This need can be met in the medium term by the effective establishment of courses such as the IAP and the utilization of the contacts and expertise provided by the delegates.

Another segment of the market demand is manifested by the needs of the professional community and their associated societies. The engineering profession in South Africa has been making considerable efforts to upgrade the status of the engineer - both socially and economically. The Professional Engineers Act No. 81 of 1968 is an example of an attempt to control the status and qualifications of engineers by granting Professional Engineers Status when certain criteria were met. It is also evident that many engineers sought to leave the engineering profession partially because of the relatively low hierarchal status granted to engineers - this is often done by acquiring an MBA or MBL. The various technical societies have a need to be able to recommend an approved adjunct to technical qualification which is specifically designed for technical people and which will be instrumental in helping to improve the status, skill and marketability of the members of these societies. Therefore a need could exist amongst the Professional Societies for an exclusive (or elitist) qualification which is recognizable as being a worthwhile adjunct for members of these societies to acquire. It is interesting to note that most respondents to the postal questionnaire conducted (Chapter 5) indicated that while qualifications such as the IAP, should <u>not</u> be a mandatory requirement for Professional Engineers status, they emphasised that their true motivation to do a course such as the IAP was that it was conducted in an engineering/technical context.

7.3. THE NEEDS OF THE IAP DELEGATE

The various needs, motivations and expectations of consumers, and of potential IAP delegates in particular, was fully discussed in Chapters 2 and 5 many of the observations made in this section are based on Chapter 5 results.

In this Chapter we have concentrated on an overview of the needs of the market for IAP type education and graduates, and this market related need manifests itself in the actions of the IAP delegate in registering for the course. In general terms the potential IAP delegate is seeking to acquire knowledge and advance his career. Until recently many engineers felt career advancement could only be achieved if they moved out of engineering into less rigorous allied fields. The IAP concept has been designed to cater for the needs of these engineers by offering an alternative career path; namely that of moving via IAP training into engineering management. An expressed need for a "bridge" between pure engineering and engineering management could be catered for by courses such as the IAP.

The IAP delegate also has a need to achieve a recognized and accepted qualification, as was shown in Table 5(6). It is therefore of great importance to ensure that not only does the knowledge and academic content of the IAP type course remain advantageous, but that social, financial, and personal ego recognition flow out of having achieved an IAP qualification. This aspect provides great scope for the building of a marketing and promotional strategy. A logical extension of this thought is that past IAP delegates have a motivational need to ensure that the qualification that they have obtained retains its relevance and acquires a certain acceptability in the market. The very good response received (67%) to the postal questionnaire is probably indicative of a desire to co-operate in ensuring the longer term success of the IAP concept.

Many of the comments received in the postal questionnaire clearly indicate that previous IAP graduates fall, broadly speaking, into two classes:

(a) Those delegates who intend to remain in an engineering field and who actually seek additional education/skills which will facilitate their career path. This really implies the desire to still be associated with the management of Industrial/Technical enterprise.

(b) The delegate whose motivation for doing the course relates to other factors such as availability of spare time; moving out of engineering sphere; to obtain a master's degree qualifications; etc. The needs of these delegates could probably be satisfied by most other comparable courses.

Since the needs of these two clases of delegates are distinct and different it is necessary to concentrate the marketing strategy design on only one aspect. It is suggested that, in the light of the findings of Chapters 5 and 6 where it is found that the engineering orientation of the course is the IAP's most salient differentiating factor, that the needs of the first group be preferentially catered for in the marketing strategy design.

In practical terms this would mean that the practical and pragmatic technically orientated basis of the course shoud be emphasized and be implicit in the physical structure of the course itself.

At present the needs described above (i.e. the needs of industry, the academic institutions, the professional societies, and of the individual engineer himself) are being met only in a perfunctory way. The engineer or scientist, who is not an academic, yet who wishes to study further has no definitive alternatives open to him which specifically cater for his needs. As a consequence of this the body of graduate engineers in mid-career have collected a random mixture of qualifications and course attendences. This additional expertise ranges from formal degree educations to in-company training programmes covering non engineering fields. It is not being suggested that these qualifications are not advantageous to the mid-career engineer, but rather that scope exists for the creation of a logical and specific degree progression and catering for the needs of this category of engineer.

Since the premise is being made that it will be beneficial to the engineering profession for the creation of a more consistant and logical education progression, it is assumed that considerable support can be generated from the professional societies and from Industry for the promotion of the concept. The development of these ideas forms the basis of later Chapters where these thoughts are amplified as part of the formulation of the marketing strategy.

This discussion has implied that certain restraints exist which preclude the satisfaction of the needs of the various components of the market. For example the demand of Industry for correctly trained and motivated engineers is being hindered by the physical shortage of engineers combined with the number of mid-career engineers who are lost to the engineering profession. Also the needs of the academic institutions are inadequately met since proportionately few engineers proceed to conventional Master's degrees since the pecuniary rewards in Industry are rarely tangible. Finally the needs of the mid-career engineer to broaden his education base is being met by predominately non-engineering orientated facilities or institutions. Some of these intrinsic restraints could possibly be alleviated over the long term if an image building programme for courses is successful in the eyes of both industry and the IAP graduate.

Certain other restraints manifest themselves. For example financial, geographic, racial and political factors.

Financially it is onerous on the engineer to obtain post graduate education, if this is not adequately supported and encouraged by the delegate's employer. This support could involve reimbursement of study fees and paid study leave for periods of full time attendance required at predominantly part-time courses. These financial restraints are generally becoming less of a problem than previously. For example a survey of the 1981 part time MBA class at UCT showed that 86% of the students received paid study leave while 75% received financial assistance from their employers. However, for those potential IAP type delegates who do not receive this type of assistance the task of obtaining additional qualifications is not facilitated by the heavy financial and time commitments involved.

Consideration should therefore be given to this facet in the marketing policy design.

Geographically restraints also exist since, with the exception of UNISA qualifications, physical presence is required to obtain IAP type qualifications. More particularly, since only one IAP type is currently being offered the target market is considerably reduced by the geographical location of the University of Cape Town. More generally, however, the nature of the engineering profession (and in particular mining and civil engineering) often predicates a working environment remotely located; consequently the development needs of both industry and the engineer are hampered by geographical factors. It is proposed that a first step to alleviate this problem is to make the IAP course available at other Universities with reciprocal credits being obtainable. This proposal will be developed in later chapters - here it serves to highlight that the needs of the profession will best be met by developing a national flavour to IAP education. As a consequence of this the status of IAP qualifications will be enhanced.

Social and political factors also restrain the satisfaction of needs. The engineering profession has, until recently, had a low social status in South Africa. For those engineers who seek accomplishments that will enhance their social status little opportunities exist in the pure engineering environment to achieve social recognition. Consequently their is a corresponding decrease in motivation to aspire to additional engineering qualifications. Political aspects have had a somewhat more serious impact on the satisfaction of needs. Since none of the ethnic universities currently have pure engineering faculties, (The University of Zululand is to start an Engineering Faculty) the supply of potential IAP graduates is restricted to pure science graduates. The needs of industry for engineers is thus predominantly met by the white population group. As a result of this the demand for IAP education is largely restricted to the same population group.

7.4 CONCLUSION

This Chapter has outlined the qualitative aspects of the demand for the IAP concept. This demand comprises two elements : firstly the demand for the IAP course itself by the technical graduate and secondly the demand of Industry for the IAP graduate. Industry's demand itself flows out of its need to satisfy the aspirations of technical graduates with 5 - 10 years experience and hence to satisfy their own manpower needs by maintaining a pool of adequately qualified personnel. As was demonstrated in Chapter 5 the technical graduate feels that he has a need to acquire knowledge and status which will enable him to cope with the new management nature of his career path.

Thus while accepting that the shortage of engineers probably overshadows any other demands it is believed that the long term demands of all the market segments can be partially met by promoting the IAP concept. The IAP concept is therefore proposed as a method of satisfying market demands and needs that are probably far beyond the original scope and intention of the course. The development of this theme is a major part of the proposed marketing strategy.

In summary therefore it has been shown(50)(51) that a definite and unfulfilled demand exists for technically trained people such as graduate engineers and that consequently Industry is interested in maximizing the number of technical graduates who remain available for employment in predominantly technical fields. It was also suggested that the IAP concept, being founded in a technical environment, could possibly be utilized to more specifically satisfy the aspirations of both technical graduates and Industry. In Chapter 5 the hypothesis was accepted that the IAP concept required a programme of promotion, image building and development. It therefore follows that the strategy to be followed should also embrace the demand elements and market segments isolated in this Chapter.

The next stage in the formulation of the marketing strategy is to evaluate the information available and to see if the various components can be synthesized into a uniform idea of what the product should be, and who represents the target consumer. Chapter 8 develops this theme with reference to the IAP.

CHAPTER 8

DEVELOPMENT OF PRODUCT AND CONSUMER PROFILES

The previous chapters have highlighted the needs, motivations and expectations both of the IAP delegate and the market in which he operates. Reference has regularly been made to the utilization of the concepts which evolved in a logical and consistent development of a marketing strategy. Before proceeding with the development of this particular strategy it will be advantageous to precisely define what product we wish to promote and to whom this product is to be sold. This assimilation of the researched trends into a concise definition of target markets is crucial to effective strategy design. Therefore, the sequence of profile development undertaken in this chapter is partially a repetition of the information already provided. This process of review of alternatives and data and rationalization of target profiles is of central importance to all marketing strategy design and therefore the entire appraisal process is illustrated in this Chapter.

In the case of the IAP the product and consumer are ostensibly known - it was shown however in Chapter 5 that the IAP concept is nebulous to most delegates and furthermore that the delegates true motivations do not precisely align with the IAP objectives and/or course structure. Also that the demands of the market in general can be better met by the overall development of the IAP concept as a national qualification which is a logical educational progression for graduate engineers.

This Chapter will utilize the research findings discussed in Chapter 5, to more precisely define the market segments and product position which will best benefit the long term objective of establishing the IAP course as a permanent and viable product in the market.

One of the hypotheses discussed in Chapter 5 related to the applicability of the results which flowed from the research into past delegates attitudes and motivations. It was concluded that this group

formed the most representative group on which to model the product and consumer profiles. As an initial step therefore a profile will be developed which will represent the IAP product, this will be followed by the syntheses of the most appropriate consumer profile which will represent the target market. The utilization of the term profile follows the approach of Ansoff[54]. Finally these profiles will be examined to see how they compare with the needs of the market generally, as well as the motivations of the IAP delegates.

In Chapter 9 an outline will be developed of the overall marketing strategy to be adopted in the formulation of the specific proposals to be made in Part II regarding the promotion of these profiles into the specific market segments selected.

8.1 CONSUMER PROFILE

In Chapter 5 data was presented which showed the typical characteristics of previous IAP delegates, (eg. Table 5(2)) and it was hypothesised that the profile of these delegates is reasonably representative of the target IAP consumer. Since the product attributes have been based on the responses received from the previous delegates it is necessary to regard these same people as being the pre-cursor on which the theoretical IAP consumer will be modelled. As mentioned previously this may result in a IAP concept which is sharply different from the original concept - in reality it may be completely new product to add to the academic range.

The question also arises as to whether any of the mainly subjective product and image factors to be discussed conflict with the aspirant delegates profile being developed in this section. To ensure that such a conflict does not arise section 8.3 will finally compare the product and consumer profiles with the needs of the market. The demographics of the target consumer are therefore presented based on previous IAP graduates and then subsequently evaluated to ensure compatability with the overall marketing strategy.

The target consumer for the IAP product may be represented, based on a summary of the results of Chapter 5, by the following profile.

General: Typically the delegate will be

- male
- married
- about 31 years old
- anxious to study further

Qualifications: Typically the delegate will

- have a degree in Engineering or Science (79% of previous delegates had Engineering degrees, 18% in Science)

- likely to be a Civil or Mechanical Engineer (29% of previous delegates were Mechanical Engineers, 25% were Civil Engineers)

- likely to have obtained his degree at a local university (65% had obtained degrees from UCT)

- have had 5-10 years post graduate experience.

Occupation:

- he will be at middle management level

- he will be earning about R19 000 in 1981 terms (See Table A3.28)

- equally likely to be in manufacturing, consulting or public sevice sections (Table 5(5))

- will be working in a technical capacity

- He will be supported by his company when studying further

Objective in considering registering for IAP course

- enhance career prospects

- facilitate move into Technical management

- to acquire formal training in business subjects

- to bridge gap in original technical training

The resumé therefore identifies the typical consumer at which the IAP concept should be aimed. Care should be taken however to ensure that this profile remains only as a guide to the target market and hence the appropriateness of the marketing strategy. The profile should not be used as a yardstick against which potential applicants could be judged since data with a considerable range was utilized in computing this average profile.

This profile condenses the conclusions reached previously and shows those salient features which could help to show that an appropriate market segment may be reached by selecting this "typical" delegate as a model. In particular his objectives in registering for the IAP become of importance when formulating the consequent marketing strategy.

8.2 PRODUCT PROFILE AND PERSONALITY

In line with the theoretical discussions on market segmentation and product repositioning it is now necessary to evaluate the product, and establish product characteristics that will enable a coherent and successful marketing strategy to be designed.

8.2.1 Product Characteristics

Probably the most significant feature that has emerged is that any uniqueness attributable to the IAP product revolves around the technical/industrial nature of the IAP and its emphasis on the 'industrial' as opposed to the business environment. Closely allied to this concept is the statement that the course, being in the Engineering Faculty is run for engineers by engineers. In Chapter 4 and 5 the hypothesis was developed that it would be beneficial to the engineering profession and to industry to develop the IAP as being specifically for engineers and this aspect will therefore be built into this product

profile. It is necessary to mention that the present course construction in reality does not fulfil the perceived motivation of delegates that it is engineering orientated - this aspect will have to be redressed over the medium term.

Another important product characteristic is that the IAP is predominantly a management course and therefore should be designed so as to meet the delegates motivation of "moving into management" (See Table 5(8)), be it engineering management or generalized management. Many other courses exist which provide management training, but few do it in a predominantly technical environment - it is this distinction which it will be necessary to promote.

Since the course is designed at a post graduate level the aspect which ranked highly as a motivating factor was the fact that a Masters degree was attainable. It is proposed that this aspect be highlighted at every opportunity and that the term IAP be replaced by, a term such as MIA or MEA (Master of Engineering Administration). At the same time it is necessary to remove the notion that the IAP is "a poor man's MBA", and efforts should be made to make the attainment of the IAP something unique and different from the MBA. This once again refers to the IAP's engineering orientation i.e. any graduate, including engineers, may enroll for an MBA while only engineers/scientists may enroll for the IAP. The term IAP will, for the time being, still be used for this study. Other names will be considered in Chapter 10.

The comments made by the IAP graduates in their answers to Question 12 of the postal questionnaire sometimes advised merging ther IAP concept with the MBA, but with Industrial Engineering as the major specialist course. This avenue is not recommended since.

- the desire to study Industrial Engineering is not an expressed motivation of the typical IAP delegate.

- the close link with the Engineering Faculty will be lost.

- in the medium term the IAP concept would be totally merged with the MBA profile and a separate and district promotion strategy would therefore be pointless.

Another aspect of the IAP profile is that the formal lecture content is of relatively short duration and conducted on a part time basis. The length of the 1982 lecture course has been extended to a full accademic year and all the competitive courses are also offered on a part time basis. Consequently this type of point of difference is no longer of validity. In the motivational studies presented in Chapter 5 a strong motivation to select the IAP was that it was part-time. However this motivation was markedly influenced by the 1976 and 1977 classes responses when UCT did not offer a part-time MBA and hence providing the IAP with a somewhat unique position in the market. As a consequence of the other part-time course available to the aspirant IAP this particular aspect, while being an important part of the product profile, will not be highlighted as a particular characteristic of the IAP.

In the past considerable emphasis has been placed on the promotion of the Industrial Engineering part of the course as being its main objective. As can be seen from Table A3.11 the desire to acquire formal training in Industrial Engineering subjects ranked poorly as a motivational factor for wishing to enroll for the IAP. In terms of marketing factors it is believed vital that the stress be moved away from emphasising Industrial Engineering as the core subject - the emphasis should rather be placed on the broader subject of Engineering Management. This subject would have some of the convential Industrial Engineering subjects as part of the overall concept, but which would be expanded to include subjects such as plant management, contract and project management, and construction management. Once again the IAP product profile should reflect the management of the technical enterprise as the overall objective of the course.

Table 5(12) and Table A3.22 indicated that concern exists as to whether consistantly high and constant accademic standards are being maintained. Chapter 5 showed that in general terms:

- the examination results achieved per subject appear to reflect an imbalance both in weighting allocated and success rates.

- there was a disproportionate final grading distribution between the candidates in the different years. For example in some years the majority of delegates achieved 3rd class passes, while in other years 2+ and 2- averages were predominant.

- very few applicants were not admitted to the course. All applicants who had previously obtained degrees were admitted.

- delegates have commented adversely on flexible criteria regarding pass marks, work obligations, group study, etc.

It is believed vital that stringent and consistent academic standards be implemented. The reference to academic standards should be seen in the light not so much of academic content (which was rated as acceptable by the delegates) but rather consistent and demanding standards. It is vital that delegates retain confidence that all attempts are made by the University to maintain the standards which they set. Failure to do so will nullify any marketing attempt to create the requisite product image which is being developed in this section. Since it is the intention to develop the product characteristic that this is a management course for technical people run in an engineering environment it is implicit that a considerable degree of ability and experience is required to obtain the qualification. The product profile is being developed that the IAP is an elitist technical qualification and it is therefore necessary to promote this concept combined with stringent standards. Ways of doing this will detailed in subsequent chapters.

The curriculum offered and the wide range of subjects offered, while certainly not unique to the IAP, were of considerable attraction to the IAP delegates (Table A3.10) The presentation of traditional "business" subjects (such as finance, law, accounting) in an engineering environment and context forms an intrisic part of this product profile. The study of these subjects will enable the IAP graduate who is in middle management, to better comprehend the demands and requests of the other functions.

In summary the physical attributes of the IAP product which form the subject of the marketing strategy to be developed are:

- a technical management as opposed to a business management course.
- run for and by technical people.
- specifically designed for the needs of technical industry.
- a Masters level qualification which is a logical progression for graduate scientists and engineers.
- major subject of the part time course is Engineering Management.
- an elitist qualification of high standards aimed at the technical graduate at middle management level.

8.2.2 Product Image

The previous section highlighted some selected attributes which will form the core of the overall product profile. Allied to these characteristics are certain imaging factors which need to be delineated. Some of these factors should relate to aspects such as style; management level; anticipated practical versus academic stance; localized versus international nature; effort and time required; social and status factors; etc. The selection of addition imaging factors is predominantly subjective but compliments the physical attributes associated with the product profile.

An examination of the delegates reponses's showed that many referred to the "flashy", "high powered" "gimmicky" MBA type courses as reasons for rather enrolling for the IAP. Given that the product profile is largely based on the concept of being a technically based course it is probably appropriate to imbue the IAP product with a personality which is practical, pragmatic and down to earth. This image will help to reinforce the delegates motivation to enroll for the IAP since this type

of characteristic is generally associated as representing the outlook of the engineering and technical disciplines. The aspect of being a practically based course for practical people consistently emerged in the free response comments of delegates in their response to Question 12 of the delegates postal questionnaire, and it is consequently recommended that this image be propogated. This practical/pragmatic image should however not be allowed to dominate the product personality to the extent that the IAP is seen as not being dynamic, interactive and up to date. By careful selection of advertising copy, advertising mix, press releases and physical course presentation it is believed possibly that the ostensible image that seems to be implicit in the fact that the IAP is offered in the Engineering Faculty, may be nurtured. The image that has been delineated here is ultimately one of "style" - the style selected therefore being non flamboyant and practical while at the same time being highly interactive.

Another non tangible image factor that seems appropriate is that the IAP product is necessary for the natural progression of engineers and scientists within the technical and industrial sector. As a corollary of this the image is created that the attainment of the IAP is an equivalent or alternative to Professional Engineers status. In a promotional context the stance could be adopted that the attainment of the IAP will not prove a tool enabling the graduate to be catapulted into positions of power and decision making, but rather that without the IAP engineers and scientists will face an uphill task in progressing from their present middle management status.

In Chapter 6 the analysis of the competitive environment indicated that increasing specialization in post graduate administration courses seems to be taking place; the opportunity therefore presents itself to imbue the IAP with the image that it is a course for specialist managers of the technical sector. This image will therefor amplify the product attributes outlined in the previous section, but should be developed in such a way that the need for specialization in technical management is highlighted as being motivated by technical Industry's demands for such managers. Chapter 6 also indicated that competitive courses to the

IAP, on a marketing basis, pitched their course profiles at a certain level of management. With particular reference to the MBA at UCT it was pitched at top management level and this fact, combined with the profile of the typical IAP delegate, makes it appropriate for the IAP at UCT to be pitched at middle management level. This does not imply a reduction of standard from comparable Master's level courses, but rather that emphasis be placed on the type of decision making made at middle management level. An example of this could be a concentration on the implementation phase of an investment in new plant, rather than on the investment decision itself. The placing of the product at this level of management will assist in promoting the course as being one essentially concerned with physical and practical problems experienced in day-to-day operations.

The points listed regarding product image and charateristics have been based on the IAP concept as a product entity in the market for delegates, and only passing reference has been made to the specific institution, the University of Cape Town, at which the IAP is currently being offered. Table 5(10) indicates that no particular equity exists in the fact that the degree is being offered at the University of Cape Town and it is therefore believed that it is not necessary to promote the institution itself in developing the market strategy. However of more importance is the fact that the IAP will be trying to create an image of necessity to the technically qualified person and for this reason the IAP course should be available on a <u>national</u> basis. This will obviously involve the initiation of IAP courses at selected other universities - this, it is suggested, is vital for the overall development of the IAP marketing strategy. This theme will be discussed in subsequent chapters. In terms of image factors therefore no exclusively is planned for the fact that the University of Cape Town is the only institution currently offering the course - the IAP course will have a national as opposed to a regional image.

Another image factor that should be developed revolves around the professional nature of the IAP course. Other administration courses, because of their generalist nature, have to create their own

associations and image regarding the status of the qualifications. For the IAP however the opportunity exists to easily link into existing bodies eg. the Federation of Societies of Professional Engineers; Engineers Association of South Africa, etc. By soliciting the help of existing societies in propogating the IAP courses it will be relatively easier to develop the requisite professional image and standing of the IAP courses. Over the long term it is hoped to generate an image such as say the CA or CIS or specialist medical courses have credited whereby sanction is given by a Professional body to a certain educational path. It is therefore possible to ascribe a specific professional image to the IAP course which will help differentiate it from competitive administration courses.

In summary therefore the physical characteristics of the IAP product will be complimented by utilizing the following imaging factors on a consistent basis.

- practical and pragmatic
- interactive
- necessary for progress
- for middle management
- specialist and professionally based
- national course

The description of the IAP product in these sections provide a framework on which the details of the actual strategy be adopted may be built. In essence the process has involved both the market segmentation of the target market and the subsequent product differention and repositioning to satisfy this target market. When using these terms the approach of McCarthy[55] is being followed. He defines market segmentation as "the process of isolating previously unsatisfied target markets and designing a unique product for that part of the market grid". Where there are competitors in a particular market grid it becomes necessary to stress product differences, and to reposition the product by concentrating the marketing effort on certain attributes.

With so many established, successful, competitors to the IAP product it is naive to think that a considerable increase in demand for the product will rapidly emerge. The need for embarking on the process presently being outlined should rather be seen in the context of ensuring that the IAP has soundly based motivational and practical product reasons for existing as a separate entity to other administration courses. If a distinct and striking product image is not developed then the continued existence of the IAP course itself could be in jeopardy.

8.3 COMPARISON OF PROFILES WITH NEEDS OF MARKET

Chapter 7 discussed the overall needs of the market - and in this instance it was concluded that the market for the IAP product consisted of two components namely the needs of industry and the needs of the IAP delegate. Chapter 6, the competitive environment, discussed how some of these needs are currently being met. The product and consumer profiles have been developed on the basis of the data presented in Chapter 5 and it is therefore appropriate to examine the selected profiles in the light of the overall market environment.

For simplicity the product and consumer profiles that are to be promoted as part of the marketing strategy will now be condensed and summarized and the examined to see if any reasons exist indicating modification of the profile. A suggested description the product profile for the IAP is:

> "The IAP is a master's degree course offered by the Engineering Faculty specifically for the need of technically trained people who wish to gain specialist post graduate education in the field of technical management.
>
> Ability to manage in a technical environment, and to interact with the other functions soon becomes mandatory and acquirement of the IAP is the way recommended by the Professional Societies. The IAP is run by practically orientated engineers who are able to cater effectively for the needs of the middle management technical person, as opposed to the needs of top level business management training.

The IAP is a part time, intensive course offered on a national basis that requires diligent utilization of practical career experience already gained in the structured academic framework provided. The practical base of the course and the interactive utilization of the delegates actual experience gained ensure that this professional qualification complements the technical person's abilities and previous education".

The target market consumer's profile may be condensed and summarized as follows.

"The IAP course is aimed at those technically trained people in their early thirties who have attained 5-10 years industrial experience. Typically already facing middle management decisions he will feel the need to logically complement his existing education with a professionally recognized qualification which will also enhance his career prospects."

These two profiles have in fact already been used in designing the advertising copy actually used in October 1981 to attract applicants to the 1982 course. Considerable success was received and resultant enquiries by far exceeded previous results. The development of the advertisement will be discussed in Chapter 11 but suffice to say now that the consumer and product profiles presented in this Chapter were extensively used.

When examining the needs of the market it is felt that the primary needs of both segments of the market are being met.

Industry needs to retain the services of its technically qualified people in a technical environment - the IAP product aims to do just that. The resultant implicit stability of the engineering professions alleviates the physical shortage of engineers by retaining them in the profession. Industry also needs to ensure that their middle managers are able to comprehend the functioning of the enterprise as a whole and the IAP provides a professionally recognized and "standardized" way of providing this additional training. This statement again comprehends the concept of IAP education being available on a national basis.

The delegate's needs are also met in that since the product is accepted by both the professional societies and by industry he will particularly satisfy his primary motivation - that of career advancement and development. The need to complement his education in a familiar and practical environment amongst his peers will also be satisifed.

Finally a product has been developed which offers some degree of uniqueness versus competitive products, and the IAP will be able to adopt a particular marketing stance and image which will differentiate it from competitive products. The promotion of this marketing position in reality will not imply a fundamental product difference since broadly similar curricula are followed at most academic institutions, but rather that when physical modifications are made they are made with the view of complimenting the product profile.

In essence no conflict is found between the needs and structure of the market when compared to the profiles developed. Furthermore a positive position in the marketing environment can be foreseen as a result of the market segmentation, target market idenfication, product differentiation and product repositioning exercises that have taken place. A marketing strategy will now be outlined which will have as the precursor the profiles developed and serve as the skeleton on which specific advertising and promotional ideas may be based.

This Chapter has developed concepts which have been, to a large extent based on the input obtained from the research undertaken into IAP delegates motivations and needs, combined with the statistics extracted from the data sources mentioned. Despite this base much of the concepts have had to be presented in a subjective manner since the formulation of an appropriate strategy has to be a creative exercise. It is therefore not been attempted to substantiate the entire finalized version of say the recommended product profile but rather to substantiate the evolution of the individual component rationales which make up the final version.

The ultimate test of the effectiveness of the marketing techniques employed and the creative interpretation of the research findings will only be seen when the entire marketing strategy is actually implemented

and the results examined over the longer term. The marketing strategy itself is important, but the process of developing this strategy is perhaps of most relevance since the ultimate strategy needs to be proactive and hence will require continuous review.

In a similar way other academic courses could formulate a strategy by adopting an equivalent systematic process of marketing strategy formulations. In the next Chapter, which will conclude Part I, an evaluation will be made of some of the other elements which it is necessary to comprehend when finally drawing up a marketing strategy.

CHAPTER 9

THE MARKETING STRATEGY

The previous Chapters have provided information and analysis, based on which the target market and product position was identified. It is now necessary to formulate a marketing strategy for the specific example selected which will concisely reflect a set of objectives, and feasible methods of achieving these objectives.

The basis of this particular marketing strategy for the IAP will be presented as marketing plans and programmes which will enable the Faculty of Engineering to compete in the marketing environment in which it operates. To achieve this result it is necessary to evaluate the marketing variables available such as product, place, promotion, pricing, and to establish a recommended marketing mix. The marketing mix, as defined by Lucas[56] is the particular combination of policy instruments integrated at a particular time in a particular marketing strategy. Some of the other factors which have to be considered in any strategy involve the statement of objectives, consideration of resources available, current position in the market, competitive actions, and consumer attitudes.

In essence therefore this Chapter will perform the function of linking the results of the previous Chapters with the actions that will be proposed in Part II.

9.1 ASSUMPTIONS

Before listing the objectives of the proposed marketing strategy, that have been developed as part of this illustrative study, it is necessary to state the primary assumptions that are made in the formulation of the overall marketing strategy. In general terms the hypotheses which have been accepted served to define and validate the particular study undertaken. Over and above this it is necessary to make other

assumptions to bound the particular strategy being developed - the statement of assumptions enables the strategy to be creatively developed without restriction. If it is subsequently found that an assumption is not valid then specific modifications are made to the established strategy. Some of the assumptions necessary to continue the design of a possible strategy for the IAP example will now be discussed.

The prime assumption made in the marketing strategy development is that the University of Cape Town as an institution is in favour of promoting the IAP concept and sees no conflict in offering both the IAP and MBA courses. If the conclusions reached during the market segmentation and product differentiation phase are accepted by UCT then it should follow that no conflict should be seen. This however ignores the possibility that there are certain vested interests involved. Since the assumption is being made that the University is in favour of the IAP concept, no strategy will be presented which will be aimed at what may be called the internal marketing environment. Should it in fact be necessary to persuade the internal marketing environment of the validity and necessity of the actions proposed it could probably best be done by utilizing the data presented in this report on an informal basis to the appropriate decision makers. Consideration of the internal marketing environment is undoubtedly necessary but in the case of the IAP strategy being illustrated it will be assumed that no specific strategies are necessary to cope with the internal environment.

Another assumption to be made is that, over the long term, the finance available for the course itself as well as its promotion, will be adequate. Certain difficulties have been experienced in the past (see Chapter 3) regarding adequate and continuous financial support for the course, but it is assumed here that over the long term these difficulties will be overcome. Regarding costs involved in promoting the IAP concept most of the suggestions to be presented will be inexpensive and quantified, and the aspect of actually funding the proposals will not be addressed. This is excluded on the basis that the entire IAP integrated concept will ultimately be adequately funded from the Univesity, Government, Course Fees, Company's contributions, alumuni support, etc. The actual procurement of the funds therefore becomes an administrative task.

The assumption is also made that adequate manpower is available to implement the marketing strategy. While the physical implementation of the strategy is not in itself onerous the strategy will require an ongoing and continous dedication to the generalized objective of gaining maximum exposure for the IAP concept. This will require a high degree of innovative and creative administration of the marketing strategy and it assumed that the appropriate manpower is available to be responsible for this task on an ongoing basis.

Manpower and finance are specific assumptions made but actually form part of the generalized assumptions which is now made. This assumption relates to the supply of all necessary resources and support. Specific items under this description could be access to an advertising agency, supply of appropriate academic staff, adequate facilities, etc. Currently these physical resources have been available and there is no reason why the situation should change if the base assumption of overall University support and finance is accepted. The primary physical resource that has been lacking is the supply of delegates and it is to the correction of this deficiency that the overall marketing strategy is addressed.

In the course of investigating the competitive environment, the consumer profile, and the product profile and image, the intrinsic assumption was made that the results and data obtained would also be representative for the future. Apart from the forecast made that an increasing amount of specialization would occur in MBA type courses it is assumed that the determined characters of the market will be static and consistant. Consequently the marketing strategy will remain valid over the medium term.

The final assumption to be made is that the market mechanism by which the prospective IAP delegate may choose to register for the IAP course, will become progressively easier. This assumption implies that restraints such as finance, geographical location of IAP courses, state of the economy, political factors, time available, etc, will also contribute to, rather than burden, the marketing strategy.

In the discussion on strategy design it was mentioned that the formulation of the marketing objectives was basic to the process of strategy development. The marketing objectives to be summarized in this section are based on the research done and the analysis of the market environment undertaken.

The overall objective of the design of this particular marketing strategy being used as an illustration is to assist the Faculty of Engineering in achieving its objective of establishing the IAP as a recognized and worthwile post graduate qualification which is consistently demanded by the specified consumers identified in the target markets.

Before amplifying the particular objectives which the marketing strategy will be seeking to achieve it is probably appropriate to restate part of the composite profiles developed in 8.2 viz.

"The IAP product is a Masters degree course offered by the Engineering Faculty specifically for the needs of technically trained people who wish to gain specialised post graduate education in the field of technical management". The balance of the profile relates to product characteristics and image.

"The IAP course is aimed at those technically trained people in their early thirties who have attained 5 - 10 years industrial experience. Typically already facing middle management decisions he will need to logically complement his existing education with a professionally recognized qualification which will also enhance his career prospects".

Various marketing objectives flow directly out of these profile:-

Firstly that the IAP course be perceived by the market as being distinctly different from any other course offered in South Africa. Also that it be repositioned in the market as being a definite alternative to existing courses by offering a different career based choice.

Secondly the objective is that the IAP course be seen by the market as a prestigious qualification of a high academic standard requiring specialist abilities. These abilities relate predominately to the fact that the course is operated for and by technically trained people and therefore that certain academic and experience based knowledge may be assumed.

Thirdly the objective is to promote the IAP as a post graduate qualification leading to a Masters degree in the Engineering Faculty. This will reinforce the above objectives of distinctiveness, high level, and technical/engineering base.

As an adjunct to this will be the objective of establishing the IAP as a qualification that is recognized and promoted by the Professional Associations.

Fourthly an objective is that the course evolve as a foundation for management in a technical environment. The marketing objective is to position the IAP as a management course rather then as an Industrial Engineering course. (Probably Industrial Engineering will however still form the basis of the technical aspect of the course since it is valid for the management of technical enterprise). It is only on a promotional basis that it will be underplayed since the motivations of the consumer seek to be satisfied by acquiring "management" skills in a broader sense than Industrial Engineering.

Finally it is an objective that maximum exposure is achieved on a continuous basis for the IAP concept as a whole. Secondary exposure should relate to the IAP offered at the University of Cape Town. These exposures should relate to the appropriate media mix, supplemented by appropriate public relations and promotional activities. This objective of creating greater awareness also embraces liaison with and education of Industry regarding the IAP concept.

In summary the marketing objectives be they product, place or promotion based should seek to facillitate the achievement of the fundamental objective on which the formulation of this marketing strategy is based viz the creation of a satisfactory and regular demand for the IAP product in the target market.

9.3 SALIENT FEATURES OF THE STRATEGY

The next phase of strategy design, now that the hypotheses, assumptions, and objectives have been considered, is to utilize the skeleton of information ascertained in an appropriate strategy. The details of the marketing strategy are fully considered in Part II - in this section only specific aspects of the marketing mix will be touched upon to highlight the themes of the strategy to be adopted.

The product and consumer variables of the marketing mix have been extensively considered in Chapter 8 and resulted in the definitive statement of intended product and consumer profiles. The product component of the mix therefore does not need any further strategy decisions. In summary the product profile suggested related to the theme that

" The IAP is a master's degree course offered by the Engineering Faculty specifically for the need of technically trained people who wish to gain specialist post graduate education in the field of technical management."

Before leaving the product component of the marketing mix it is necessary to mention that one of the hypotheses of this study was that the product itself (ie the IAP course) was not in dispute; and that consideration to the physical restructuring of the course would not be given, except as it directly affects the marketing strategy. This assumption was necessary since otherwise the strategy example would disintergrate into an examination of the components of the course itself which is outside the scope of the marketing process being illustrated. Therefore the aspect of product will be assumed to be as per the product profile established in Chapter 8, and that any intrinsic changes to the physical structure would logically flow from the Faculty's dedication to the marketing strategy adopted. As an example of this limitation no consideration will be given as to what proportion of the course would be

devoted to particular subjects, but mention will be made of the delegates motivational need to study subjects with managerial connotations. Other topics which will be mentioned under the product category are thesis studies, length of course, course name, etc. Because the nature of the product desired, and the target market, have already been identified these additional product features will only be elaborated on in the detailed marketing strategy demonstrated in Part II.

The variable of Price as a component of the marketing mix has already been considered and it was concluded that Price in the context of post graduate part-time education was not an important variable. This conclusion was based on the premise that most delegates are sponsored by their firms. For example 85% of the 1981 part-time MBA course at UCT where sponsored by their companies(57) - the variable of price is therefore not a prime influence on the delegates choice of course. In addition each Department in the University environment does not have marketing flexibility to affect the prices of courses, which to a large extent is prescribed by the University as a whole. Part II therefore does not elaborate on this particular demand of the marketing mix.

Promotion as an element of this marketing strategy is of vital importance. It has been established in the research done that the IAP was largely unknown to the market; was difficult to describe to outside parties; and had no particular image or personaltiy. To alleviate these imaging factors a product personality was developed in 8.2.2 which essentially described the IAP course as being a practically based course for practical people - "practical, pragmatic and down to earth." The detailed Promotion policy to be suggested in Part II reinforces this basic theme and furthermore seeks to highlight the technical/engineering basis of the IAP course. Methods to do this using advetising, sales promotional and public relations techniques may be found in Part II.

The final variable is that of Place which conventionally describes where, when and by whom the services are to be offered to the consumer. Since the IAP product operates in a highly specialized market the question of Place is determined largely by the location and

method of operation of the various Universities. An important element of the product image developed in Chapter 8 related to the fact that it was necessry to offer the IAP on a national basis so as to facilitate the implementation of the idea in technical industry that the IAP was a logical qualification to obtain at middle management level. Since this could not be done if the IAP could only be obtained at the University of Cape Town it will be proposed in Part II that a concerted effort be made to establish similar courses at least 2 other universities which are geographically separated. The marketing strategy being developed recommends the propogation of the IAP concept as a whole so as to ultimately benefit the IAP at the University of Cape Town. Considerable help could be achieved in this objective if similar courses, reciprocaly recognized and supported could be implemented. In the area of pooling resources for overseas lecturers a potential saving and/or increase in these lecturers is possible. Therefore the marketing variable place in the marketing mix is of importance in developing the marketing strategy.

The marketing strategy to be elaborated on therefore seeks to highlight, by means of product modifications and promotion, the profiles developed in Chapter 8. The next stage in the process of the strategy design formulation will be to consider some specific suggestions (The Marketing Plan) and to see how it may be possible to implement this Plan.

9.4 THE MARKETING PLAN IN OUTLINE

It was mentioned that this Chapter forms the theoretical bridge between the research/analysis done and the specific suggestions to be made based on the conclusions reached. Part II will provide the detailed proposals but, for the sake of clarity, it is proposed to outline the topics to be covered. This section therefore outlines the components of the marketing mix so as to provide a reference framework for the balance of this study.

Product

- course name
- duration of course
- projects and thesis studies
- geographical aspects
- standards
- nature of tuition

Promotion and Advertising

- message development
- media selection and frequency
- non formalized advertising
- promotion strategies
- presentations to Industry
- brochures and application forms
- information services
- utilization of visiting lecturers
- utilization of alumuni, delegates and Industry
- effective communication
- administration of the strategy

Public Relations

- industrial consultancy
- provision of community services
- co-operation with Professional Societies
- direct canvass of Industry
- seminars for senior management
- areas of specialization
- utilization of existing manpower

In Part II each of these demands is discussed in detail and finally, in Chapter 13 the overall marketing strategy and Plan is concisely reviewed.

9.5 TIMING AND RESPONSIBILITY

It is of importance that the marketing plan which evolves out of the marketing strategy suggested here is implemented on an immediate basis. Considerable momention has already been lost (cf. the

cancellation of the 1981 course) and some of those factors which have contributed to this state of affairs are correctable by means of the proposed strategy. In essence the most significant feature of the strategy is that a considerably higher public and professional presence should be aimed for and that this process should immediately commence. Ultimately it is not of great significance which order the promotional and public relations items are tackled, provided that additional exposure is gained on a regular and continuous basis. Advertising plans should be investigated and planned in accordance with available budgets; a suggested year's advertising programme is however presented in a later chapter. With respect to the product related items identified in the marketing strategy as possible amplification of the desired product image, it will be necessary to select and implement prior to any other major advertising or Public Relations campaigns conducted. If this sequence were not to be done then the risk is run of a credibility gap developing in the target market - at all costs it should be ensured that claims made are, to some degree, substantiable.

In summary the marketing plan should commence immediately, be continuously and regularly supplemented, and envisages a period of operation of not less than 5 years. After 5 years the steps initiated should be sufficiently image generating to only require sporadic input to retain interest and newsworthiness.

One of the major assumptions made was that adequate manpower would be available to implement these plans. On this basis it is furthermore necessary to definitively allocate to a member of the Faculty responsibility for the execution and implementation of the plan. It is in this area that the greatest risk lies in that the implementation of these types of action are firstly time-consuming and secondly lie outside the interest and expertise of the Faculty members. If it is found, on reviewing, that adequate progress is not being made then it may be necessary to solicit the help of outside Public Relation firms or, more ideally solicit the help of MBA and Business Science thesis students. In all probability implementation of particular segments of the strategy would provide interesting and challanging topics for these

students. As a result of this course of action the plans and programmes would get a regular impulse of new enthusiasm and thought which would undoubtably influence the overall success of the strategy.

These thoughts in reality merely highlight the necessity of ensuring that the marketing strategy programme is regularly reviewed and audited. This control aspect is of vital importance in this long term strategy since, should lack of progress and momentum occur at any time, it can undo much of the work already done in previous periods. Furthermore when such a situation arises it should be noticed and corrected within a short time period.

9.6 SUMMARY OF PART I

Part I has sought to illustrate, by means of the example of the IAP, how a marketing strategy might be formulated for a post graduate academic course. The process demonstrated involved

- a theoretical discussion on marketing strategy design, market segmentation and product positioning
- a historical review of the IAP example
- a discussion on the methodology adopted
- extensive research into past delegate's motivation and needs (both career and education based)
- a survey of the competitive environment
- an evaluation of the demand for the product
- creative development of the desired product, consumer and image profiles
- Synthesis of the results into a tentative framework on which a marketing strategy could be built

The specific example chosen was of benefit since the overall objective of demonstrating the type of process needed, and the detailed research necessary, has been met. The marketing of academic courses is a particular case of non-business marketing, but it is believed that there will be an increasing awareness of the necessity of adopting a marketing

philosophy to ensure long term success of "non traditional" courses. On this basis it is hoped that the specific process of strategy development that is illustrated in this study will be of benefit to other courses contemplating the development of a marketing strategy.

Besides the demonstration of the sequential process of strategy formulation, the necessity for a detailed consideration of consumer behaviour has also been highlighted. Only by analysing the consumer motivations and specifically selecting the appropriate target markets will it be possible to adequately tailor the academic courses to market demands.

In general terms academic courses have, for many years, catered for the demands of the academic institution itself rather than the demands of the consumer. While this is probably necessary in undergraduate courses, it is suggested that if specific cognicance of consumer needs and aspirations is not taken when offering specialist post graduate courses, optimum calibre and numbers of students will not be achieved.

The IAP appears to have propagated a product which is seen, by the Department of Mechanical Engineering, as being based on Industrial Engineering techniques. Since this is markedly different from the needs expressed by past graduates of the IAP it becomes necessary to re-evaluate the product being offered. Either a different product needs to be developed to suit the aspirations of the target market isolated (new course or modified IAP) or the IAP product as present conceptionally understood needs to isolate a different target market. The current marketing thrust has been found to be inappropriate to the rather diffuse target market previously envisaged by the University. This study has therefore shown that change is necessary to optimize the use of the Department's resources.

Part I, the process of strategy design for the IAP at UCT, forms a complete module illustrating strategy design. If specific and detailed illustrations are required of the actual marketing strategy suggested for the IAP, then it will be necessary to read Part II. It should be

mentioned that Part II, while being a specific strategy presentation also carries theoretical discussions on topics such as advertising, message development, media selection and frequency, public relations techniques, etc. These may be of use when the important stage of detailed strategy amplification is reached in any other studies which may use this illustrative example as a precurser for a marketing strategy design for comparable courses.

This Chapter has outlined the aims, objectives, and assumptions on which the marketing strategy (and the consequent marketing plan) have been developed. The target market and marketing mix have also been reviewed. Finally an outline was provided of those specific items within the selected marketing mix which would be discussed in more detail in Part II. Chapter 9 sought to link the more theoretical exposition of marketing research and concepts with the proposed practical implementation of the ideas which evolved. The next section of this study will concentrate on the presentation of ideas and plans which will facilitate the attainment of the aims and objectives of the marketing strategy.

PART II

CHAPTER 10

PRODUCT

The product profile and image developed in Chapter 8 delineates the ideal nature that the product should have to adequately satisfy the demands of the market. Essentially the development of the product image is largely dependent on emphasizing the strengths of the existing product and ensuring that target market is made aware of these aspects. The differences between the IAP and its competitors are not entirely sufficient to ensure that a firm foundation is created on which to launch an effective advertising, promotional and public relations campaign. For this reason certain proposals will be made in this Chapter which will attempt to reinforce the product profile. All the items therefore relate to the profiles as presented in Sections 8.1, and 8.2.

10.1 COURSE NAME

An important motivation of MIA delegates was to acquire a post graduate qualification and in Section 8.2 it was concluded that it was appropriate that the term IAP (or similar) should be discontinued and replaced by something similar to MIA (Master of Industrial Administration). The major aim in this was to emphasize that it was a Master's level degree, and in addition to attain some uniformity in the terms used to describe the course - this latter factor will facilitate the entire marketing strategy.

Before recommending the adoption of the term MIA as an acronym, consideration was given to other descriptions, such as :-

MEA: Master of Engineering Administration
MIM: Master of Industrial Management
MIL: Master of Industrial Leadership
MEM: Master of Engineering Management

All of the above terms have merit in that they emphasize the image of management in an industrial/engineering environment. However, as pointed out in Chapter 3, the adoption of the word "Management" is likely to raise objections from other University Departments, and the use of the word engineering could artificially narrow the desired target market to only graduate engineers. Over and above this, however, two factors indicate that the term MIA should be retained.

- Firstly there is some equity in the expression already, since many MIA graduates already use this acronym.

- Secondly the formal degree obtained is the M. Ind. Admin. and it is improbable that it will be possible to change this name with the Administration unless very good reasons could be provided.

It is consequently recommended that a concerted effort be made to replace the "IAP" by the term MIA wherever possible. (This has in fact already been done in the November 1981 advertising programme designed as part of this study). Apart from facilitating the promotional plans such a term will also convey a distinct message (a degree of Master's level in the Industrial Administration field) which the IAP acronym failed to do.

It is also suggested that it is necessary to underplay the fact that the course is also open to non-graduates. In the past the strategy of emphasising the "Programme" as opposed to "Degree" has lead to a diffusing of image and status and a confusion regarding the objectives of the course. Since the vast majority (89%) of past delegates have been graduates, and the target market has been selected amongst graduates, the marketing mix should also conform with these criteria.
As a sideline, it may be mentioned that numerous respondents to the delegates questionnaire indicated in their non-structured responses that Industrial Engineering in practice would be a Supervisor to lower managerial level function, and consequently should not be over-emphasized in the promotion of the course to middle management.

It is probably as a result of the former that the necessity to encourage non-graduates to do the MIA was considered.

The most effective way of introducing this term as being descriptive of the course is by regular use. Verbal and written descriptions of the course are necessary at very regular intervals and it is recommended that no further promotional support is necessary to ensure that the term MIA begins to convey a distinctive product profile and image to the marketing environment. Consequentally the term MIA will be used for the balance of this study.

10.2 DURATION OF COURSE

A very important finding of the delegates' questionnaire (Table 5(12) was that concern was expressed regarding low standards, bad planning of the course, and lack of depth of some of the subjects studied. As mentioned before, in depth proposals on these aspects are beyond the scope of this study, but these aspects could probably be alleviated by extending the formal course work to a full academic year. Since this proposal has already been implemented for the 1982 academic year, it will be assumed that delegate's aspirations regarding academic content will be better met in the future.

In terms of advertising effectiveness the lengthening of the course will have a positive effect in that it will, by inference, increase the status of the course. It is believed that part of the image problems experienced to date have flowed from a lack of appreciation of the anticipated balance between the formal lecture programme and the thesis completion. Many respondents to the delegates' questionnaire indicated that a credibility gap existed in the minds of both components of the market in that it could not be comprehended "how a Master's degree could be obtained in six months". Consequently an image of an easy alternative to an MBA or equivalent logically became prevalent

By extending the course work and more effectively linking the thesis work so as to complement the course aims it is believed that a good base will be provided to improve the market's image of the effectiveness (and

hence desirability) of the course. Probably the revised nature of a lengthened course (which is still predominantly part-time, supplemented by intensive periods of full time attendance) will heighten consumer interest since it immediately acquires a more professional/academic stature. This was an important motivation identified in the motivational research conducted in Chapter 5.

The nominal length of the course can be artificially inflated, without straining the Universities' resources by extending the period of delegates independent study. This can be done in two main ways. Firstly the delegate should be required to complete extensive pre-course study, which should obviate the need to conduct the elementary/basic lecture courses which occupy so much of the syllabus time. Provided that definitive notes and course outlines are prepared, it is suggested that the delegates, most of whom it should be remembered are technical graduates, be required to satisfy basic requirements by self and group study, prior to the formal lecture programme. Some topics which are suggested are:

Basic Programming
Critical Path Analysis
Statistics
Operations Research
Computational Methods
Aspects of Industrial Engineering
Preparatory Accounting Text

This proposal therefore envisages, subsequent to registration, a lengthy period in which delegates by self and group study supplemented by say weekly attendance of seminars to maintain impetus, prepare themselves for examinations in particular technical fields. Obviously there will be an appointed lecturer for each course who would be available for consultation or requested tutorials. By this method it will be possible to avoid lecturing on an undergraduate level in certain subjects.

Subsequent to this phase the formalized lecture programme would commence predominantly on management related topics in which the typical consumer is unlikely to have any formal academic training. This would satisfy the delegate's needs for management training and, on a promotional basis, facilitate image promotion of a course specializing in technical and industrial management.

This lecture programme would be followed by a period in which the delegate is required to satisfy the thesis requirements simultaneously with sporadic attendance at seminars/tutorials. The overall effect of this 3 phase programme would be to lengthen the overall period of active registration to about 18 months of which only 6-9 months requires intensive attendance of formalized part-time lectures.

By adopting an approach as suggested above, you effectively screen the delegates during the first phase ("entrance examination") and consequently, if strict standards are maintained, raise the calibre of MIA graduates and the status of the course. Status has to be gained by continuous exposure of aspects of the course to the target markets - the judicious press release of say the number of drop-outs at the end of the first phase could be an effective image building device for example.

10.3 PROJECTS AND THESIS STUDIES

An overriding objective of the marketing strategy revolves around positioning the MIA as a specialist technical management course which provides a logical career path development for the technical graduate. This objective can be partially achieved by better emphasizing the thesis aspect of the course as firstly providing technical industry with a source of relevant information and manpower resources and secondly by providing the MIA delegate the opportunity to acquire advanced knowledge of practical issues in a particular subject.

The recommendations which are to be made impinge markedly on the public relations and other promotional aspects of the marketing strategy and consequently form an important part of the marketing mix. Here industry, and in particular certain well qualified industrial leaders,

will be seen to be actively supporting the course and tacitly encouraging potential delegates to register. The recommendations are not original, but do require a considerable amount of preparatory work by the Faculty of Engineering. In essence it is proposed that thesis topics should predominantly represent actual study request provided by Industry. It is believed that technical industry would welcome the facility of being able to request studies to be done by MIA students, particularly in view of the technical manpower shortages forecast. The acquiring of such a bank of study requests will necessitate ongoing liaison with technical industry, but this exercise will in itself provide invaluable Public Relations opportunities and promote the MIA concept to the target market. Provided that the quality of studies undertaken by the first MIA group participating in this scheme is satisfactory, then it is likely that the scheme will be self generating.

Financially too there is merit in progressing this suggestion. Since, at a later stage, consideration could be given to requesting industry to financially support the particular study with respect to expenses such as market research costs, travel costs, cost of experimental equipment, etc. This is obviously advantageous to the MIA delegate on a personal basis, but furthermore will enable more professional work to be done and consequently reinforce the status of the course.

The other arm to this proposal on thesis studies involves the recruitment of certain well known individuals from Industry who would be willing to act as project leaders/supervisors of MIA students. For example key individuals in the Civil Contracting, Oil, Textile and Electronics Industries could be drawn from Industry in the Western Cape. The fact that these people, who should be well known in technical industry, are associated with the course will lend credibility to the overall rationale for the existence of the course in the first place. The participation of these people will be highlighted in promotional support to the course and reinforce the technical/professional nature of the course.

Over the longer term therefore the thesis part of the course could become the most important motivational aspect for a delegate selecting the MIA. As an example it could be suggested that a prominent

personality from the Civil Contracting Industry could develop around him a unit specializing in Project and Construction Management and Research which would form an almost obligatory post-graduate career path for ambitious civil engineers. This result would however be the intention of the initial marketing strategy which would be to capitalize on the prestige associated with each of the individual's alliance with the MIA. Apart from the delegates motivational needs being met it is also suggested that the technical market, in a competitive sense, would be made aware of the existance of the MIA. Hopefully this would lead to controversy as to the benefits of this aspect of the MIA which in turn would lead to increased newsworthiness of the MIA which would be beneficial to the overall marketing strategy.

If these high profile areas of specialization evolve it could be used as a key component of product differentiation. The product profile established in Chapter 8 stressed the practical and technical nature of the course, its post graduate nature, and career progression aspects. Heavy emphasis could therefore be given in advertising and promotions to the practical industrial necessity of the thesis studies being done and furthermore of the importance Industry itself places on these study units. No consideration is given in this study to the physical construction of the thesis studies - they could be in-plant research, group project studies, collation of papers presented at seminars on topics in the specialist field, examination based studies, etc. All that should be emphasized in terms of the marketing strategy development is that it is necessary to develop the "3rd phase" of the MIA course into a high profile area which reinforces the technical sector in which the MIA operates and also satisfies the delegates motives be they career based or academic based. This development could centre around the evolvment of operational areas of expertise, headed by prominent people, and visibly supported by Industry.

The MIA, since it has adopted the product profile of being a specialist course in technical management in the Engineering Faculty, has the unique ability to develop the thesis aspect of the course as providing specialist technical support to industry. No other comparable course

has the weight of a technical faculty to support the advertising claims made and consequently every effort should be made to exploit this opportunity and highlight the thesis phase as the culmination of the objectives of the course.

10.4 GEOGRAPHICAL ASPECTS OF PRODUCT PROFILE

It was mentioned in Chapter 8 that the MIA course should be available on a national as opposed to a regional basis. The product profile indicates that a MIA qualification should be seen as being professionaly based and providing the technical graduate with a logical progression of his technical qualification.

To do this it will be necessary to ensure that the MIA is available to most technically qualified people and is not exclusive to the University of Cape Town. The ultimate objective of the marketing strategy would be to ensure that the UCT MIA is the prestige MIA product available, but little mention will be made in the initial phases that currently the UCT course is the only one available - it is more important to entrench the MIA concept.

The necessity exists therefore to canvass the co-operation of the Universities remotely situated from UCT and which have Engineering Faculties, to consider the introduction of similar MIA courses having the same objectives. To ensure optimal coverage it would be ideal if the University of the Witwatersrand, University of Pretoria, and Natal University had MIA courses. Obviously such a suggestion cannot be implemented by the University of Cape Town, and furthermore would take many years if it became operational. The purpose in highlighting the geographical/national aspect of the strategy is to ensure that a parochial view of the course does not develop. From the analysis done on the target market it is clear that it will be to the ultimate benefit of the UCT MIA, if the MIA concept is accepted in the market - consequently it is necessary to extend the potential market base. No marketing gain can be made by stressing the needs of the graduate, if the product itself is restricted to the Western Cape.

The only effective way of propogating the idea of more MIA courses is by informal contact with members of other Universities and it is recommended that the prospect be discussed with the appropriate decision makers wherever possible. If this tactic is accepted then it should be the responsibility of all senior Faculty members to promote the idea to their counterparts wherever appropriate.

10.5 STANDARDS

Reference was made in 8.2 to the need to create an image of high professional standards, and it was suggested that a variation of the course length would be one way of achieving this objective. In this section certain other suggestions will be made - all of which are designed to complement the product profile and image, and facilitate the promotion of the course.

Delegate's response to the questions in the postal questionnaire showed that little equity existed in the MIA concept itself, and that where negative associations with the product existed they invariably related to factors such as variable standards, flexibility of standards, and reference to an inferior version of an MBA. It is obviously of great importance for the long term success of the course to ensure that these "inferior" connotations are replaced.

Many promotional gimmicks may be employed to do this, but of greater importance is for consistent and inflexible standards to be set and maintained. If sub-minima, pass marks, maximum number of subject failures allowed, entrance requirements, etc. are set, they should be ruthlessly applied. While it superficially may appear advantageous to be compassionate or to vary the rules from year to year it is quite likely to be detrimental to the course image as a whole and to those graduates who have attained the qualification. Equally necessary is for the standards that are set to be logical and fair and it is recommended that a critical review is made of the Department's requirements in this regard. Some thoughts would be an average pass mark of 50%, the necessity to rewrite a subject if a sub-minima of 30%

is not obtained, and that a maximum number of 3 subject failures be permitted. Furthermore only those delegates who achieve an overall average of 60% would be permitted to proceed to "phase 3" and the award of the Master's degree. Some of these suggestions have already been accepted and will be applicable to the 1982 course.

Once the review of academic requirements is completed it will have as a consequence that in all probability there will be a decreased number of candidates who are permitted to do the master's degree, an increased number of delegates failing the course, and a smaller number of applicants being accepted into the course in the first instance. While in the short term this may be disadvantageous from an administrative and financial point of view it will be beneficial from the point of view of establishing the product image to the potential delegate and the ultimate consumer of the delegate's services. Logically it will be necessary to ensure that those statistics are communicated to the target markets. While it is not suggested that a deliberate policy be followed which will restrict attainment of the qualification it is suggested that the MIA course becomes more newsworthy if for example 20 people apply and only 15 are accepted for registration and 5 ultimately obtain the masters degree. These facts can be communicated in the media (at no charge) to reinforce the product image being created - "only 60% of all applicants are accepted onto the course and only 25% obtain the master's degree". The suggestion is therefore that, provided the standards are constant, promotional gain can be achieved out of the base statistics, particularly if these statistics are significantly good or significantly bad.

As can be seen from Table 5(1) the following overall statistics are currently applicable to the MIA course

Percentage of applicants for the course who actually registered	67%
Percentage failure on first attempt	17%
Percentage of all delegates obtaining masters degree	15%

and it is recommended that this type of information be publicized. This aspect is nominally part of the promotional strategy but it is necessary to be consistent here since a definite correlation exists with the maintenance of course standards.

Allied to this topic is the consideration of the entrance procedures which are to be adopted. The current situation is that an application form is completed by the delegate and on the basis of this the Department decides if registration will be permitted - occassionally personal interviews are conducted to decide on marginal cases. There is however a large drop out rate between the submission of the application form and actual registration and efforts should be made to prevent this happening. It is suggested that this happens since there is little physical follow up to enquiries and applications.

This could be alleviated by inviting all applicants and potential applicants to a question and answer session hosted by the Department. At this function it should be possible to convey the required image to the delegates on the MIA course which will motivate them to register. i.e. the product profile and image should be discussed with them reinforcing the positive motivational aspects such as practical, engineering oriented, career benefits, etc. Efforts should be made during this session to ensure that additional application terms are completed. Subsequent to this session a series of selection interviews should be held which will predominantly involve those people who either never attended the question/answer session or who had marginal entrance qualifications. The fact that selection interviews are to be held for certain people should be specifically mentioned, and it should become known that attendance at the question/answer session is virtually mandatory if a selection interview is to be avoided. This question/answer session should ultimately perform the dual aims of having a positive promotional benefit (particularly if Industry is invited to attend) as well as helping to bridge the void that exists at present prior to attendance.

Some other institutions use the selection interview as their screening device. While it will be necessary to utilize this procedure in selected cases it is recommended that the "phase one" self study period be used as a natural screening process - some financial refund would have to be arranged if the delegate is not permitted to proceed. It is in this phase that opportunity exists to actually capitalize on the "drop out" percentage to further the cause of conveying the image of consistent and high (as opposed to onerous) standards.

The maintenance of standards is an integral part of the marketing strategy and it is necessary to be vigilant to ensure that all standards remain at the required level. The standards referred to refer not only to academic standards but to standard of the delegate, standard of lecturing, and standard of administration of the MIA course. All of these will contribute to the establishment of the selected product profile.

10.6 NATURE OF TUITION

Proposals have already been made regarding a possible 3 phase cycle of attendance on the course. Over and above this however it is suggested that the MIA course as a whole should operate on the premise of a highly interactive knowledge and experience exchange. This is necessary to promote the image of a product and experience based course.

For example delegates should be required to prepare cases for discussion based on actual problems experienced. Provided the problems presented are succinct and definitive it is believed that valuable knowledge can be acquired. As a corollary of this thought should be a request to lecturers not to merely present their undergraduate courses but to actually consider the objectives of the MIA course before finalising the syllabus. This task will be considerably facilitated by the 1st phase of study which should embrace sufficient ground work, predominantly by self study, to enable a pragmatic and interactive formal lecture programme to be devised.

Therefore it is recommended that a concerted effort be made to design the course such that an effective and visible bias is given to practical applications, investigative work and lecture guidance rather than lecture provision. Also the course should be intensive and creative and requiring active involvement by the delegate at all times.

The product component of the marketing mix is important in that the promotional campaign has to be soundly based on fact. Product aspects are probably the simplest component of the marketing mix for the University to influence so as to more closely align the actual product with the product profile developed in Chapter 8. The suggestions made in the Chapter are by no means exhaustive and should rather be considered as examples of some of the conflicts which exist in the present product as compared to the ideal product required to match the product profile.

The responsibility of ensuring that the MIA product matches its marketing image being created belongs to the entire Administration - for this responsibility to be met will require a dedication to a marketing strategy and cognisance of the overall product effort which is required to complete the marketing mix. Other components of the marketing mix recommended will be discussed in the next Chapter.

CHAPTER 11

PROMOTION AND ADVERTISING STRATEGIES

In the previous Chapter various suggestions were made as to how the product could be manipulated such that the product profiles developed could be accurately descriptive. The point was also made that while the possible changes would have to evolve on a continuous basis and respond to the various market changes it was important that consideration be given to their effect on the marketing strategy. It will now be assumed that the MIA product is in effect a perfect match for the product profile and image selected and that the next step in formulating the marketing strategy will be to propose methods to communicate the product details to the target market. In this Chapter two major aspects of Promotion will be discussed namely sales promotions and advertising. Some ideas will be developed which could effectively promote the MIA to the target market and help to meet the overall objectives of the Faculty of Engineering.

It should also be mentioned at the outset that the term "Industry" is frequently used in this Chapter to describe that segment of business represented by undertakings which have as an important element of their function a strong technical, scientific or engineering basis.

11.1 ADVERTISING

An examination of the MIA's competitors indicated that they were essentially Graduate Schools of Business. These Schools also devote considerable funds to advertising and sales promotion - it was hoped that definite data could be provided on their advertising expenditure but the poor response from these Institutions to the questions asked (see Chapter 5) has precluded this. Table 11.1, which is based on Adindex Data on Press Advertising expenditure by Universities, does give some indication of the scope of the expenditure - unfortunately no breakdown is available by Department.

Table 11 (1)

Universities Press Advertising Expenditure

(R00)

Year	University	Newspapers & Consumer Magazines	Trade Magazines	Total
1977	Cape Town	49	780	127
	Natal	50	0	60
	Pretoria	54	0	54
	Stellenbosch	89	20	109
	Witwatersrand	176	58	235
	All Other	75	1	82
	TOTAL	548	156	713
1978	Cape Town	90	64	155
	Natal	65	0	66
	Unisa	47	23	72
	Stellenbosch	44	14	42
	Witwatersrand	164	41	207
	All Other	93	8	112
	TOTAL	536	150	704
1979	Cape Town	64	149	213
	Natal	77	3	80
	OFS	1	0	1
	Unisa	44	20	65
	Pretoria	168	0	168
	Stellenbosch	47	15	65
	Witwatersrand	263	66	331
	All Other	39	0	48
	TOTAL	768	252	1037
1980	Cape Town	157	110	270
	Natal	90	1	291
	Unisa	98	33	141
	Pretoria	40	5	45
	Stellenbosch	107	17	124
	Witwatersrand	350	101	458
	All Other	83	14	104
	TOTAL	768	252	1037

Note: 1. Adindex Year is August to July and the above figures in fact refer to the period ending in the particular year.

2. Total columns refers to total Press Advertising Expenditure and is not the sum of the two particular items shown.

3. Adindex Classification into "all other" varied from year to year.

4. The University of Pretoria also spent R1400 on radio advertising in 1979.

The data indicates that the University of the Witwatersrand has consistantly had the largest total expenditure on media advertising and that the University of Cape Town spends the largest amount in the "Trade Magazines" category. Bearing in mind the product profile developed for the MIA it is recommended that a large proportion of the advertising budget be spent in trade magazines - this type of exposure will help to upgrade the image of the MIA. The extent of the advertising budget to be used is determined by the "objectives and task method" whereby the advertising objectives are defined, the tasks necessary to achieve these objectives are determined; and an approximate cost assigned to the performance of these tasks.

11.1.1 Message Development

Developing an advertising message for the MIA course is essentially a rephrasing of the product profile developed in Chapter 8, since this profile was extensively developed so as best to meet the overall objectives of all components of the market. The general advertising objectives are a subset of the overall objectives and may be summarized as follows:

- To create an image in the mind of the target market which is consistent with the product profile and image.
- To motivate the target market to actively respond to the advertising message and apply for admittance to the MIA course.
- To promote segmentation of the market such that the MIA course is seen to uniquely fulfill a need in the academic and professional market.
- To ensure that a regular demand for the MIA product is generated and an adequate number of quality delegates are available each year.

Twedt[58] suggests that the task of selecting the communications policy involves consideration of the following factors : desirability, exclusiveness and believability. All of these elements have to positively indluence the target market if optimum success is to be achieved. An additional factor that should be considered is to promote identification. Martineau[59] believes that "identification is an extremely important avenue of persuasion in advertising. If the reader can identify with the users of the product, if he can see himself in the

situation, then his feelings become involved and the process works towards conviction and believability". These criteria are utilized in the presentation of the specimen copy presented below.

What should be said in the advertising message has to a large extent been determined by the desired product profile - what remains to be done is to find the appropriate style, tone and format. Normally advertising is designed at mass selling to relatively diffuse target markets - in this case however two very specific target markets exist, the potential delegate and Industry. These target markets are highly literate and analytical and it will be important to create an image in the advertising which is synergistic with the product image which it seeks to create; in this case an image of practicableness and need satisfaction in a technical environment.

All the above elements were used, in consultation with a leading international advertising agency(60), to develop the following copy for use as a newspaper and trade magazine advertisement.

MASTERS DEGREE IN INDUSTRIAL ADMINISTRATION

(PART TIME)

The Faculty of Engineering realizes that management in an engineering environment places unique challenges on the technically qualified person.

The MIA programme is specifically designed to provide those management skills which are not normally part of an engineering/scientific curricula. Exposure to formal concepts in commercial and business studies, as well as industrial engineering will enhance your career prospects in the field of industrial management.

The intensive part-time lecture course (some evenings and Saturday mornings) is completed in the 1st year at the end of which the Graduate Diploma in Industrial Administration is awarded. Successful candidates may then proceed with a project thesis to be awarded the M. Ind. Admin. degree.

Non degreed candidates may also participate in the 1st year lecture programme to be awarded the Diploma in Industrial Administrature.

Full details or brochures are available by phoning 698531 ext. 383 or by posting the printed coupon.

These suggestions were presented to the Department of Mechanical Engineering during October 1981 and resulted in very similar advertisements being placed in the Argus on 10/10/81 and 7/11/81. (See Appendix 6 for actual advertisement). Appendix 7 shows examples of the type of advertising that appeared in previous years.

The actual response to these advertisements was exceptional with over 40 applicants being received following the first insertion - this being more than double the response received from previous advertisements.

On analysing the proposed advertisement the following can be highlighted

- The sequence of concepts within the copy broadly follows the top ranked motivations for delegates selecting the MIA.
- The top headline emphasises the Masters degree and its part-time nature, while the closing headline emphasizes the University of Cape Town and the Faculty of Engineering.
- The body copy stresses the fact that it is offered in the Faculty of Engineering to provide management skills in an industrial environment.
- The tone is formal, with an attempt being made to make the consumer identify with the scenario outlined in the 2nd and 3rd paragraphs.
- Minimal emphasis is given to industrial engineering studies

It is believed that the actual advertisement run in 1981 over emphasises the words Industrial Administration Programme (See 10.1) and it is recommended that it be replaced by the MIA designation. It is also recommended that the opening paragraph of the body copy be relocated since it does not serve to entice the consumer to read further and is merely a bald statement of fact.

If the proposed advertisement is compared with section 8.2 (MIA profile) it can be seen that the same elements in the profile have been transferred to the advertising copy. By changing the action verbs it is therefore able to meet two of the advertising objectives immediately - firstly the advertisement concisely summarises the product profile to be promoted to both the Industry and the Professions (thus gaining immediate exposure) and secondly was able to generate sufficient interest from the potential delegate to get a satisfactory physical response to the advertisement.

The development of the copy was predicated on the various factors previously mentioned viz desirability, exclusiveness, believability and identification. All of these elements are satisfied to some degree - probably however believability is the weakest element at the present time and support should be given to improve this via the promotion and public relations segments. The sequence of concepts mentioned not only closely follows the ranked motivations previously ascertained, but also deliberately presents identifiable needs to the consumer then discusses the means available to meet those needs and finally attempts to motivate the reader to act positively to meet those needs by applying for further details.

This advertisement message is also intended to provide the potential MIA delegate with a distinct image of the course. Apart from the presentation of facts the style has purposefully been kept simple, formal, logical and non-flamboyant. This all helps, hopefully, to reinforce the message being generated which revolves around the Engineering Faculty.

This particular advertisement was intended to be suitable for all media selected. It is also recommended that the same advertisement be run for a reasonable number of years (see section on frequency) and that the exact message be used as the front piece of the MIA brochure. This will help to provide the link between first sight of the advertisement and the second phase of the need satisfaction which is the brochure perusal. The advertising message which has been developed is designed not only as an attention getter and motivator, but also as a vehicle for constantly propagating the product profile - even to those delegates who have completed the course. Repetition of the advertising message to the market, and this includes Industry, will go a long way towards securing a stable product image.

11.1.2 Media Selection and Frequency

Over the past 5 years MIA advertising has predominantly been confined to The Argus, with the exception being a trial run in the S.A. Mechanical Engineer. When selecting the advertising media it is important to remember that there are two market segments which have to be catered for - Firstly the potential MIA delegate himself and secondly the consumer

of the graduate MIA. On this basis it is possible to categorise the publications suitable to reach each of these target markets.

In the first case the week-end Argus provides the most suitable vehicle to act as an attention gainer, particularly if the advertisement is located in the business section of the paper. The Argus is chosen because of its regional nature and its relatively wide circulation amongst all population groups in the Western Cape. Since it was emphasized that the MIA should ultimately become national in character, but that the UCT MIA is the only course currently being offered, it is believed that it would be cost ineffective to advertise on a national basis to attract spontaneous application by the delegates.

In the second case the media selection criteria are more difficult since an attempt is being made to influence both segments of the market. Conventional media selection techniques (cost per thousand, simulation, linear programming) are not appropriate since it is unlikely that in depth profiles exist for each publication which would enable the calculation of the number of potential consumers being reached. It is therefore prudent, if not necessarily cost effective, to advertise in certain professional journals, in which parts of both target markets will definitely be reached. The type of publications suggested are:

S A Mechanical Engineer

CHEMSA

Production Management

S A Civil Engineer

In terms of overall image promotional factors it is necessary not only to influence the technical staff, but also the decision makers in the firm. As part of the promotional strategy it will be recommended that every effort should be made to gain exposure in management based magazines. If exposure is to be gained the opportunity should be taken to reinforce the "free" advertising with formal insertion in the same issue. The recommendation is therefore that advertising exposure must be considered in publications such as

Financial Mail

Management

Finance Week

In particular consideration must be given to advertising in certain special surveys which these periodicals might issue. For instance if the Financial Mail was planning a Special Survey on the Civil Engineering Industry it would be beneficial for the MIA advertisement to appear in the same issue. This policy would be consistent with the stated aims of the marketing strategy which seeks to identify the MIA course with the Engineering/Technical profession. Obviously exposure in these publications will have a positive image building effect which is consistent with the profile that needs to be established. This type of publication also has the benefit of long exposure of the advertisement.

In broad outline therefore it is recommended that local newspaper advertising be run to specifically generate response and applications, while judicious advertising in the professional journals and business magazines be undertaken primarily to bolster the image of the MIA course so as to raise the marketability of the ultimate MIA product.

Thus far the media selection has concentrated on written publications and no mention has been made of other media such as radio, TV, Cinema, Audio/Visual presentations etc. In the United States some Colleges and Universities advertise on radio stations, by films and by utilizing billboards(61). For this marketing strategy however it is suggested that any move in this direction will be counter-productive since the product profile we are seeking to consolidate demands a relatively austere, pragmatic, traditional and non gimmicky approach. No further consideration will therefore be given to advertising media other than printed publications, for formal paid advertising. These media have public relations possibilities which will be elaborated on in a later section.

In Table 11(2) a list is provided of the various publications which are considered to be appropriate vehicles for advertising the MIA course image and for soliciting applications from prospective delegates. Also shown are the circulation figures and advertising rates as at November 1981. This table can therefore be utilized to actually plan specific advertising insertions so as to be consistent with the particular advertising budget being considered. Advertising costs are based on a single insertion of the advertisement proposed in 11.1.1, with a

physical size of 75 column centimeters for newspapers and 1/2 page Black on White for other publication.

Table 11(2)

Suggested Publications

Publication	Circulation	Cost
Argus	101 700	R 345
Cape Times	64 095	R 311
Weekend Argus	116 107	R 345
Die Burger	69 788	R 322
Sunday Times	± 500 000	R1312
Chemsa	4 500	R 255
Journal for Technical & Vocational Education	Uncertified	R 60
The Electrical Engineer	2 690	R 340
Power and Plant in South Africa	3 315	R 405
The Certificated Engineer	Uncertified	R 130
EASA News	Uncertified	R 62
Engineering News	15 086	R 525
Engineer's News	14 000	R 185
Engineering Week	11 360	R 393
The S A Mechanical Engineer	3 519	R 300
S A Industrial Week	20 795	R 472
Production Management	4 700	R 200
S A Mining and Engineering Journal	3 317	R 405
Business South Africa	12 911	R 300
Finance Week	8 714	R 240
Financial Mail	27 726	R 505
Management	10 824	R 340
Opportunities for Graduates	25 000 (claimed)	R 600

Data for the above Table was obtained from the November 1981 issue of SARAD (Volume 9 No. 6). While most of the circulation figures are certified Audited Bureau of Circulation figures, a few represent unaudited claims by the Publishers.

The frequency of advertising also has to be considered. When the advertising strategies of the Graduate Schools of Business of the Universities of Cape Town and Witwatersrand are examined it can be seen that they advertise on a regular basis in both local newspapers and publications such as the Financial Mail. Two bursts of advertising seem to take place namely in April/May and August/September of each year. While it is not the intention of this marketing strategy to compete with these schools it is suggested that at least a twice yearly advertising exposure is necessary and furthermore that the periods indicated above are the most suitable periods.

In the past the MIA advertisements have tended to appear too late in the year and consequently are too close to the final dates for applications. Definitive suggestions on Timings will not be given since this will be dependant on the starting period of the course in its redesigned format (Chapter 10 suggestions). However it is suggested that a minimum period of 2 months prior to the final selection dates is necessary for newspaper advertisements which tend to have a short life span, and a minimum period of 4 months for professional publications.

Budget constraints will probably be the most significant determinant of both the frequency of advertising and media selection. What is emphasized in this marketing strategy is that wherever possible consideration must be given to the use of advertising, albeit disguised as delegate recruitment, in the image building process and the establishment of the professional nature of the MIA course. As a generalised proposal for an advertising plan for a year the following is proposed.

Publication	Size of Advertisement	Frequency per annum	Cost
Weekend Argus	75 column cms	2 in May, 2 in September	R1380
Financial Mail	1/2 page B/W	1 in September	R 505
Management	1/2 page B/W	1 in August	R 340
Production Management	1/2 page B/W	Twice yearly	R 400
Engineering News	75 column cms	Once per year	R 525
Chemsa	1/2 page B/W	Once per year	R 255
S A Civil Engineer	1/2 page B/W	Once per year	N/A
The S A Mechanical Engineer	1/2 page B/W	Once per year	R 300
		Total Cost	R3705

The first group is aimed directly at delegate recruitment, while the second group is aimed more at the image building process. It should be emphasized that considerable opportunity exists to rationalize costs with other Universities in the image building advertisements in the "professional publication".
The advertising plan suggested above is, additionally, probably more indicative of the advertising exposure necessary to entrench the knowledge in the market of what the MIA is and what it offers. Consequently the suggested frequency and media selection would be modified after 3-4 years to concentrate more on delegate recruiting and less on image building.

In summary therefore the media selection and frequency criteria are based on the need to influence both the decision maker and the potential delegate - the decision maker will be primed to the concept of the MIA and could motivate the delegates participations, while the potential delegate is motivated to apply for the MIA course registration.

A fundamental conclusion reached by the American Association of National Advertisers[62] is that the central goal of productive media planning should be to place emphasis on enhancing frequency rather than reach - this view should be tempered with Benesch's view [63] that minimum and maximum levels are mainly a matter of judgement and the assessment of brand competition and the position in the product cycle.

11.1.3 Non Formalised Advertising

The previous section outlined some ideas on the costs involved, in advertising in the media in a conventional way. Other forms and avenues of advertising can also be explored which primarily relate to gaining advertising exposure on a shared cost basis.

An example of this non-formal type of advertising would be to investigate the possibility of other Universities, who may be enticed into offering the MIA concept, becoming associated in a joint advertising campaign. In such a campaign the MIA concept would be

promoted and would emphasise the concept itself and not the particular institutions which offer it. This type of advertising can obviously only take place in the future but the principle of overall image promotion forms an integral part of this marketing strategy.

In a similar vein the various Professional Engineering and Technical Societies could be approached to see if they would contribute support to an advertising campaign. Such support could be both financial and by formal endorsement of the concept. The participation of the Professional societies, and technical publications, in an advertising campaign will be of inestimable value. While it is not known if financial support could be gained it is believed that the endorsement of the MIA concept could be obtained and utilized.

Another form of advertising which could be considered is in the forms of newsletters and publication of course details in Professional and Technical Magazines. These publications could be used as the vehicle for the distribution of a MIA Newsletter insert into the magazine. By utilizing Departmental Facilities the cost of production of the newsletter could be minimised, and it is also possible that sponsorship of the newsletter could be gained. While the specific target market is being reached the intention is predominantly to re-inforce the idea that the MIA is a course specifically offered for technical people.

This type of non-formalised advertising is very closely allied to the Public Relations and Promotions functions and consideration will now be given to some Promotional ideas.

Conventionally publicity is defined as the attainment of favourable presentation of significant news regarding a product, service or business unit to the public at no cost to the sponsor. In most cases a necessary pre-cursor to this publicity is the setting up of various promotional strategies. The next heading consequently refers to promotion rather than the end result which is publicity - which is a specialised form of non-paid advertising.

- direct and interactive message communications to the target markets
- awareness even amongst those who decided not to attend the presentation
- better Departmental contacts with Industry
- introduction of controversy and competitive elements
- stimulation of demand
- opportunities for Press exposure.

The regular provisions of these opportunities to the various sections of the potential target market will go a long way to heightning the awareness of the target market regarding the MIA course. Obviously there are manpower constraints which could impede this regular provision of presentations, and it is therefore suggested that more effective use be made of MIA graduates and MIA thesis students. In each target industry group there is likely to be either a MIA graduate of some standing, or a MIA thesis topic which has particular relevance to that Industry. Since it is of importance to all those associated with the MIA that the requisite recognition of the MIA is obtained, it is believed that little difficulty will be experienced in getting an appropriate person to make the presentation - either linked to a short talk on the thesis topic, or linked to that person's experience on the MIA course. Should Departmental personnel also be available to participate in the presentation, so much the better.

It was suggested in the above paragraph that thesis students who have appropriate topics be required to assist with these Industry presentations which introduce the MIA concept to Industry. Another essential form of presentations which could be made to Industry is concerned with the specialised thesis research groups suggested in Chapter 10. If for example Project Management became an area of particular expertise then the Department could offer the facility of providing a speaker to conferences held by particular undertakings (or Professional Societies) where Project Management would be of interest. This type of promotions would serve to strengthen the link between Industry and the MIA as a specialist course appropriate for technically trained people. Over the longer term Industry could be invited to a

series of seminars/presentations which would be given by a particular Research Group. The Topics presented at these seminars could form an integral part of the thesis requirements

The intention is consequently to markedly improve the direct involvement of Industry with the MIA - this is fundamental to the overall marketing strategy which seeks to establish the basic validity link between the MIA and Industry. To do this it is necessary to actively canvass Industry support for the MIA concept and the first step in this process is to physically establish a presence in the potential market by making presentations to Industry groups and professional societies.
Particular enterprises which have in the past contributed many delegates to the course should also be formally approached by the Department soliciting their help in publicizing the MIA course to their staff.
For example the Rand Afrikaans University contacted many firms engaged in the Energy Business, when they established their Honours course specializing in Energy. The firms were requested to appraise all of their technical and commercial graduates of the availability of the course, and most firms then circulated this advice to the appropriate people. This type of approach succeeded in alerting all potential candidates in these firms of the availability of the course. Similarly it is recommended that personal approaches be made to selected firms asking for either a list of all appropriately qualified people so that the Department might contact them, or alternatively that firms help in forwarding MIA details to each of these individuals in their employ.
Once again the success of such a promotion lies not only in the direct communications process but also in the status given to the MIA by the implied support of the undertaking.

11.2.2. Brochures and Application Forms

Brochures and application forms play a vital linking role in motivating a delegate to actually register for the MIA course. The current brochures and leaflets in terms of presentation and format are believed entirely satisfactory. What needs to be done, if this proposed marketing strategy is implemented is for the copy to be slightly modified so as to highlight the various factors considered in Chapter

8. These brochures should essentially be a reflection of the product and delegate profiles outlined in Chapter 8 and should also implement the various Product changes suggested in Chapter 10. It will be repetitive to re-list the suggested changes - what should however be highlighted is the facility offered by these brochures to implant concepts and images and to firmly establish the words "MIA Programme" as the only name for the course. Consequently the modification of the copy of these brochures is most important since they will form the written base on which most of the advertising and promotion will be based.

Application Forms have to perform a necessary task in helping the Department to evaluate candidates. Dependent on the position of a product in the academic market they could also be used in other ways - as image builders, as blocking and screening devices, as tests of true motivation, etc. Some of the MBA courses use the application form as a tool which is predominantly geared towards these "other aspects" and as a preliminary written interview. For the MIA however it is recommended that the application form be as practical and direct as possible, and should not contain questions or requirements which could be demotivational to the completion of the form. This is in line with the pragmatic product image. The application form which has been used over the period 1976 - 80 fulfills this criteria and no change is suggested to its base construction.

Opportunities do exist however to reinforce certain product images and the form should be evaluated on this basis. For example a question could be inserted asking for details of candidate's thesis topics or details of papers delivered. Also a question could be asked asking candidates to describe what they believe is their current field of industrial expertise or details of major problems solved. Such questions have a direct usefulness - they can assist in transferring the specialist industrial connotations of the course, as well as providing the Department with a basis for structuring appropriate study groups.

While these possibilities can be utilized it is stressed that the MIA application form should be simple and relatively effortless to complete, and should not attempt to form part of the screening process. Other entrance requirements and procedures were discussed in previous chapters.

On a promotional basis the revised application forms, brochures and leaflets should be extensively used. This use involves maximizing the distribution of the leaflets as a precursor to brochure and application form aquirement. Various methods are proposed here which will help to distribute these leaflets.

One such method already proposed involves the insertion of these leaflets in publications such as Production Management, Engineering News or the S A Mechanical Engineer. The costs involved in these inserts are generally not published but are approximately the same as a full page B/W advertisement would cost - obviously however the exposure achieved would be maximized to the particular person who retains the insert. While the costs are normally quite high it is suggested that, particularly for the Professional Journals, free insertions could be negotiated. These publications could well see such a move as a valuable Public Relations exercise, particularly if they gave editorial coverage to the MIA at the same time. This aspect will be mentioned again when Public Relations suggestions are made. In addition it is recommended that an approach be made to the Federation of Societies of Professional Engineers (P O Box 61019, Marshalltown, Transvaal, 2107) asking for access to their mailing list or alternatively for help in including the MIA leaflet with their next communication to members. Success in such a venture will be beneficial in that a step will be taken whereby engineers will see the MIA concept as being a logical career development; this was a prime objective of the marketing strategy as a whole.

Another method of distribution suggested is to ensure that each final year engineering and science student at the University of Cape Town is provided with a leaflet. While this initially will be a cost intensive exercise it will have long term benefits. Table A3.1 showed that only 9% of previous MIA delegates learnt of the existance of the MIA while at University and the supply of brochures/presentations to students now will probably enable a decrease of advertising and promotional expenditure to be allowed in the later years of this marketing strategy. As a minor addition to this method of distribution it should be ensured that all applicable notice boards at each University have copies of leaflets and/or brochures.

Industry is the vital sector that the University needs to promote into. It is suggested that the promotional method employed by the University of Stellenbosch Graduate School of Business be duplicated. Enlargements should be made of the proposed MIA advertisement (size approximately 45cm by 30cm); attached to the bottom of this enlargement is a wad of tear-off printed coupons requesting further details and application forms. These posters are then sent to large corporations with the request that the posters be displayed on notice boards etc. This method helps to promote, over the full year, the availability of the MIA course and the statement of MIA Objectives.

Numerous other methods may be devised to maximize availability of promotional literature on the MIA course (distribution at conferences, seminars, trade exhibitions, alumuni meetings, etc). The basic suggestions made is simply that it is important to ensure that the MIA promotional leaflets are presented on an unsolicited basis to the target market. Acquiring the literature as a response to advertising indicates that some motivation to register for a MIA type course already exists - the promotional literature also however needs to be read by industry decision makers in general so as to reinforce the MIA product image profile that is being created.

11.2.3 Information Services

In general terms it is desirable that information on the course, its graduates, and its activities should be known to the target market. Advertising and promotion play a major role in this process - there are certain additional activities which help in this process.

One suggestion is to compile a list of graduates of the MIA who wish to be appraised of other job opportunities. This list will in effect be similar to the Graduate Placement Scheme of the Graduate School of Business at the University of Cape Town whereby profiles of each delegate about to graduate, either full or part time, are available in booklet form to potential employers. While the ostensible aim is to link the graduate with an employer needing particular expertise, the availability of such a scheme has heavy promotional possibilities. Such a graduate placement scheme for the MIA will serve to confirm the calibre and nature of delegates who have completed the course and reinforce that engineering and technical management potential is the

result of the course. Numerous undertakings conduct interviews at the University at both graduate and post graduate level - these undertakings shold be provided with details of the current group of MIA delegates. On a selected basis various other undertakings could be notified that such a list is available - this type of information provision can be used as the reason for the indirect approach to Industry needed to arrange presentations, literature distribution, etc. Another benefit of the operation of such a scheme would be that MIA delegates, who express career advancement as a major motivating factor, will better be able to believe that the MIA directly and immediately could lead to better career opportunities.

Promotion of the availability of details of MIA graduates should be done on a low-key, but high level basis. Great sensitivity may arise if the notion develops that subsequent to the MIA course the delegate will change his current job. A balance does exist between assisting those undertakings looking for staff, and assuring Industry that their support for the MIA will not result in loss of their existing staff.

The rationale for developing this type of list is really to provide support for the image building process as well as, where appropriate, helping to solve some of the Industry's manpower problems. The limited number of delegates attempting the MIA should make the compilation of such a list relatively simple - delegates could be required for instance to write their own details.

It is also recommended that this list be presented to Industry on the basis that this is the type of person who has previously attended the course, and from whom they or the potential delegates could make further enquiries as to their actual experience on the MIA course. This type of internal professional communication is believed necessary if the concept is to be propogated that the MIA is a specialist course which it is logically necessary for all technical persons to experience. Over a period a dossier of all past students can be build up and utilized for other promotion purposes e.g. Alumuni Club establishment, procurement of financial support for the MIA, etc. The main thrust of this element of the promotion exercise is to ensure that the availability of MIA graduates is properly communicated to the target markets.

Information on post graduate and statistics regarding past delegate profiles are of interest to potential MIA delegates. The Graduate School of Business at U.C.T. published a brochure entitled "The MBA graduate 1966 - 1976" and it is suggested that some of the Chapter 5 results could be incorporated into a "MIA Fact Sheet" which could be distributed to the target markets as a means of reinforcing the desired product profile. Such a fact sheet could also be included with the brochure and application forms sent to potential delegates.

Under the broad heading of information services can also fall the dissemenation of information on the results of research being undertaken by the MIA study groups and the acquisition of study topics from Industry. It has already been pointed out that development of this aspect can make the MIA course unique. It is suggested that, over the longer term, this area can provide a most effective promtional link and that this link should be fostered in two ways. Firstly a sponsored publication should be developed which reports on Research Project activities and the benefits which are available to Industry by using this Research Facility. It is quite possible that some undertaking could sponsor the annual publication and distribution of such a review, provided that adequate Public Realtions benefits flowed from such sponsorship. Secondly Industry can be invited to attend seminars at which overall presentations can be made on the work that is being done. These promotional devices are utilising the research/thesis work being done to foster a closer relationship with Industry (the target market) and to help establish the MIA profile. These proposals will ultimately only be effective in a later stage of the marketing strategy development, once the product aspects are fully implemented.

Another information service which is recommended is the publication of a MIA newsletter aimed at communicating the MIA course programme, concepts, developments and plans to past delegates, potential delegates, and to Industry. Topics which could be included are a diary of courses/seminars; profiles on visiting lecturers; articles by staff; profiles of successful MIA graduates; developments in Industrsial education; interesting trends in technical industry; updates on research

programmes; etc. The establishment of such a newsletter will serve to involve the entire spectrum of MIA graduates, past and present, in the health of the MIA concept. Once again continuous communication is required from the MIA to its target markets to ensure the development of a better "top of the mind" awareness.

These suggestions loosely linked under the title of Information Services, are certainly not exhaustive. What is intended is that the importance of this avenue of promotion is emphasised. The documentation and distribution of factual information regarding the MIA and its activities should form a deliberate part of the promotional activities, and all opportunities should be taken to disseminate data to the target markets.

In addition, once these various items are available they will form a usefule base for an "information package" which could be provided to those applicants seriously considering the course. - it is just as important that the MIA delegates fully understand the MIA course profile and usage since they become an important means of communicating information to other interested parties. In a similar way the ongoing documentation and presentation of information facilitates the rapid provisions of information to the media should the opportunity arise. An example of this would be if say the Financial Mail was preparing a Special Report on say Post Graduate Educations, then the MIA would easily be able to provide editorial material.

11.2.4 Utilisation of visiting lecturers

According to the 2nd October 1981 issue of the Financial Mail, the University of Cape Town had 244 visiting lecturers during 1980. Given the multi-disiplinary nature of the MIA it is apparent that possibilities exist to more fully exploit this pool of lecturers when they visit Cape Town. Obviously time and administrative constraints exist in pooling manpower resources in this way but the possibility should be investigated. As an example of how this could be done would be for the MIA visiting lecturer to be made available to the GSB, and an

appropriate GSB visiting lecturer could be made available to the MIA. Another way of better utilising visiting lecturers would be for them to be available to more than one University - this is particularly valid once the MIA concept is more firmly entrenched and established at universities other than the University of Cape Town.

The promotional opportunities offered by the presence of visiting lecturers should not be underestimated. The MIA has previously had one visiting lecturer per year and, as far as can be ascertained, no press, radio or TV interviews have resulted from their visit. Such visits by prominent overseas academics are newsworthy and the media would be glad to be presented with the opportunity of interviewing these people, particularly if they can propagate a contentious debate.

The University of Cape Town GSB is a particularly good example of how to effectively utilize the presence of visiting lecturers. In the first instance a press release is made announcing the impending visit of a prominent academic (e.g. "Professor Robert P Mayo to visit South Africa", Financial Mail 11.07.80). This release merely describes the background and qualifications of the visiting lecturer - the appropriate publications find this newsworthy and provide valuable publicity to the particular course at no charge. This initial exposure is amplified by inviting Press attendance at various addresses the particular person gives - these addresses are designed to provide the media with viewpoints on topical subjects and consequently generate an immediate further exposure when these viewpoints are published as news. The visit of Joel Stern to the GSB is an excellent example of how much media exposure of the GSB itself can be acquired by judiciously utilizing the presence of these visiting lecturers to highlight the existance and nature of the course being run.

It is recommended that the MIA ensure that every visiting lecturer's visit is pre-announced to publications such as the Argus, Financial Mail, Finance Week and the appropriate technical publications. This press release merely takes the form of a letter outlining who is visiting the MIA course, what his background and qualifications are, and

what talks will be given which are open to the interested public. Following on from this release of information is the early scheduling of a non-academic talk to which the media are invited. As an example of this would be for a MIA alumuni dinner to be held at which the visiting lecturer could be guest speaker on a topic sufficiently topical and controversial to elicit a reasonable chance of publication of the details of his address. Should no media journalists be present then a synopsis of the talk should be sent to some publications. In a technical Industrial area it may seem difficult to create the correct environment which will make the topic newsworthy. The difficulty is soon removed if a reasonable evaluation is made of the person's interest and seeing how these interest can be related or applied to South Africa and the Western Cape in particular. As mentioned before controversy is worthwhile in a promotional sense and an attempt should deliberately be made to advance soundly based views which are novel to the South African environment.

The Graduate School of Business obtains continuous promotion of their images through media esposure and it is vital that the MIA take cognicance of the promotional opportunities provided by visiting lecturers. Press coverage is the initial step in securing media exposure for the MIA - should this be successful radio and TV could also be involved. The only salient point being made in this section is essentially that the arrival of these visiting lecturers is a pre-cursor of effective promotion in the media, and that a deliberate and planned effort is needed to ensure that the media is made aware of what is happening at the MIA course. Normally copy such as this will be eagerly received and a big step will have been taken to ensure that the MIA is talked about. At all costs the costly visits of these people should not be allowed to remain a pure academic/university involvement and the target markets should be made aware of the MIA and its type of operation through these visits.

Thus far in this section we have recommended that media exposure be sought to promote the MIA course. Another way of utilizing visiting lecturers is related to the public relations function. In view of the

technically based nature of the course it is quite possible that the exposure of the visiting lecturers could be effectively utilized by bodies such as the Urban Foundation, Manpower 2000, Small Business Development Corporation, etc. Specific examples obviously relate to the particular field of expertise of the lecturer but it is suggested that 1-2 days consultancy to these organizations on say group technology, appropriate technology, work study and productivity, etc could be a valuable Public Realtions exercise as well as having potential for additional press exposure. Within these type of organizations and foundations are some highly influential industrialists and the mere exercise of offering the MIA's services could be useful for establishing a presence, should, at a later stage, requests be made of these industrialists for 'course sponsorships', Industry prizes, provisions of speakers, etc. Here again the ultimate intention is to create an awareness of the existence of the MIA in all potential target markets. More will be said of the use of Public relations in the next Chapter.

Visiting lecturers should not only be seen as a vehicle for communicating knowledge to the MIA delegates, but as a novel and tangible promotional tool for helping to create awareness of the MIA.

11.2.5. Utilization of Alumini, Delegates and Industry

Another promotional device which is suggested is to more directly involve Industry, Alumini and Delegates in the operation of the course. Probably the most important demand is to ensure that Industry contributes directly in the MIA course by providing guest lecturers, hosting seminars, providing prizes to delegates, and possibly by sponsoring a Chair of Industrial Administration.

Lecturers from Industry have the ability to contribute current and practical experience to the MIA delegates, and reinforce the concept that the MIA course is practical, and experience based. A blend of academic and industrial lecturers probably will maximize the image that is being created. Apart from the academic product benefits of having these guest lecturers they provide useful image boosters for the proposed newletters and information services. To advertise the fact

that the course in preventive maintenance was to be given by say the Chief Engineer of Caltex and that an executive of IBM would be conducting the Computational Methods course provides valuable image reinforcement of the MIA concept. Additionally the MIA administration by this method improve their communication with Industry and establish valuable contacts. The involvement of these lecturers should therefore be seen not only in a basically academic light but as a means of promoting the course itself. Up to now the MIA has in fact had a high percentage of lecturers who were not directly attached to the University staff - all that is suggested is that this be advertised and promoted as a positive benefit of the MIA course. In certain courses an approach could be adoted whereby the Theory Section is handled by academic staff and a project/case study section handled by a guest lecturer from Industry.

As with the provision of guest lecturers by Industry for the MIA course, the hosting of seminars by Industry, can possibly promote the desired climate of co-operation. The particular promotional device suggested is to request Industry to support, sponsor or host a seminar or lecture - this will be particularly beneficial if say an overseas visitng lecturer is delivering the type of news generating lecture discussed in 11.2.4.

When there is likely to be possible media or public relations benefits it will be much easier to convince Industry to participate in the running of these meeting. If Industry is seen to be supportive of the MIA concept then the task of promoting and advertising the product profile to the target markets will be considerably eased. This type of promotional exposure tends to be self-propogating and, if properly orchestrated, mutually beneficial for all participants. To clarify the type of concept suggested an example could be quoted : should one of the "specialist" thesis areas develop to be group technology then an undertaking such as Leyland could be petitioned to host an annual one-day seminar on this topic at which thesis papers will be read and an appropriate address given by a prominent figure. Provided the correct media support was obtained then the "Leyland Group Technology" conference could become a prestigious and well recognized annual

event. The securing of such support from Industry on a gradual but on-going basis will provide the MIA with major promotional opportunities.

In a similar way the provision of prizes and medals to IAP graduates provides promotional and image building possibilities, as well as conveying the requisite image of high standards. Many other academic institutions utilize this method to promote their course, and to maintain a presence in the market. For example in the Argus of July 21, 1981 a captioned photograph was published showing various students of the Graduate School of Business receiving Old Mutual Gold Medals from the general manager of Old Mutual. While such an event is in itself not newsworthy it will frequently be welcomed by the media to provide "fillers" when needed. From the academic institution's point of view free publicity is achieved which not only reminds prospective students that their course is available but also tacitly shows approval of that course by a large undertaking (e.g. Old Mutual). It is therefore recommended that every effort should be made by the MIA administrators to arrange for the sponsoring of some token prize to outstanding MIA delegates, such prizes must however carry the name of a large undertaking e.g. the A.E.C.I. Gold Medal. Besides the motivational effect of the award of such a prize has on MIA delegates the major benefit probably lies in the promotional possibilities associated with the availability and presentation of the prize. In terms of availability the promotion of the prize itself is useful material for the MIA Brochure and newsletters; in terms of presentation the Press forms an integral part of the process with arrangments for possible publication probably being mandatory. Even if Press participation is not possible to arrange then the MIA Administrators should arrange for photographs to be taken, annotated, and sent to the Press with a request for Publication. In all probability the University Administration have excellent contacts with local pressmen and such publications could probably be arranged. Not only will the MIA receive a boost from this exposure but if such a promotional procedure is accepted it will make the task of attracting a prize donor that much easier.

Following the same theme of involving Industry and showing their support for the MIA, the possibility is suggested of, over the long term, striving to establish a Chair of Industrial Administration. In the S.A. Digest of 19.09.80 it was reported that the CS Barlow Chair of Industrial Engineering was established in the Department of Mechanical Engineering at the University of the Witwatersrand, subsequent to the donation of One Million Rand by the Barlow Rand Group. Donations of such a magnitude can only be negotiated once the MIA concept has been fully developed - however the attainment of such a Chair should be seen as a long term objective. Not only will the MIA product itself be considerably enhanced, but the accompanying promotional opportunities on Radio, TV, Press and Journals is quite substantial. There are sufficient large industries in the Western Cape to believe that over the long term an appropriate backer can be found. For example Atlantis Diesel Engines could be a prime target for the solicitation of assistance in this and other forms of financial support.

Various suggestions have been made as to how to forge the link between the MIA and Technical Industry. These few ideas can be considerably expanded to comprehend new developments - they do however require a dedication of purpose which probably needs the support of additional manpower (possibly outside consultants or Alumini). To illustrate the total concept which it is sought to promote, the following quote from the Financial Mail(65) gives an excellent example both of the correct utilization of media as well as the type of programme necessary.

WITS COURTS SPONSORS

Wits University has embarked on a campaign to highlight the benefits of sponsorship of its business school.

The commercial sector is the main target and information workshops the favoured vehicle.

Wits Foundation - an organization set up to administer grants to the university - and the Graduate School held their first workshop and invited well-placed members of the business community to attend. They were told of the school's facilities and the merits of financial involvement in the funding of projects.

Staff are encouraging commerce and industry to voice their needs and indicate the direction they feel the school should take.

This involvement of the business community is in line with the aim of providing a business education for students while acting as a resource centre for industry and commerce.

The substitution of a technical/industrial theme for the business/commercial theme used above would provide an adequate press release for any unified programme designed to harness Industry into co-operating in the development of the MIA programme.

So far in this section the utilization of Industry as a means of promoting the MIA programme has been discussed. Another important promotional vehicle can also be exploited namely the body of past graduates of the MIA. Up to 1981 no formal body existed which sought to combine MIA graduates into any form of pressure group, elitist organization or beneficiary body. It is recommended that consideration be given to establishing a MIA Alumini Association, the prime purpose of which will be for MIA Graduates to maintain contact with other graduates as well as with developments in the general field of Industrial Administration and the MIA Programme. In the formative years it is suggested that all that should be involved is the distribution of the proposed newsletter to these Alumini, their invitation to the various seminars/industry meetings, and an annual dinner. (This annual dinner, to which Press should be invited, could possibly be combined with an "controversial" address from a visiting lecturer).

Such an organization can be useful from a promotional point of view in that it could function both as a medium for retaining influence in numerous Industries, thus facilitating the MIA Administrator's task of

securing contacts, as well as acting as an authoritive mouthpiece on issues of public or industrial debate. The value of maintaining contact in Industry is self evident, but the latter point needs explanation. One valuable way of promoting the MIA course and its image is to ensure that every opportunity is utilized to publicize the existance of the MIA. For example if a new Factories' Act is promulgated the MIA Alumini association should make some comment expressing the Association's viewpoint. The media will welcome comment from an authoritive source and, by frequent exposure in this context, the MIA is imbued with the same prestige. In reality the initial loose nature of the MIA association will probably mean that the views expressed are those of only a limited number of MIA graduates but it is believed that such statements, under the Associations banner, have valuable promotional benefits. The MIA Association can perform the funtion of fronting for the MIA Administration in its programme to establish the MIA product profile, since it is believed that such an association of graduates involved in technical Industry will help reinforce the specialized fields in which the MIA seeks to identify with its target markets.

In much the same way MIA graduates, or the MIA association should be encouraged to write articles for publication in Professional Journals. In all probability these articles are already being written, but the point to stress is that each MIA graduate could make a deliberate effort to communicate the existence of the MIA course, or MIA research findings, into his article. Members of the Department of Mechanical Engineering could also submit articles or editorial comment to all the relevant journals describing what the MIA is seeking to achieve. Comment from the University under the MIA banner can form a most important part of the overall promotional programme.

Controversy is a way of generating additional exposure. For example during 1980 there was a prolonged debate in the "letters to the editor" column of the Financial Mail on the merits of the MBA course. This could have provided the Department with the opportunity of participating by formally writing, and while lauding the MBA course for what it is,

nevertheless highlighting that the MIA had certain unique features, and that it did not compete with the MBA. The inevitable controversy would have provided valuable exposure of the MIA concept.

Another way in which MIA graduates can be used is for the Association to continuously monitor which MIA graduates are occupying positions in Industry which are either newsworthy or can be beneficial to the MIA. Over the medium term it is likely that some MIA graduates are going to be appointed to a senior position in Industry, or alternatively to some scientific or government advisory body. When these events happen then it is necessary to ensure that maximum promotional benefit for the MIA is achieved. For example it a MIA graduate was appointed City Engineer for Cape Town the resultant press comment should include reference to the MIA e.g. "This is the first City Engineer who has attained this recently introduced MIA qualification for engineers". The responsibility of feeding this type of information to the media lies largely with the MIA graduate himself, while the MIA Association has the task of motivating the alumini to help promote the MIA in all possible ways. Once again an effective MIA association can definitely help maintain the momentum of this marketing strategy which seeks to maximise the exposure of the MIA within the framework of being part of technical Industry. Such exposure need not only be media exposure of the MIA itself to industry. In explanation of this point the situation may be described whereby a MIA graduate occupies a positon in Industry whereby he can request MIA students or research groups to do study projects for his organization's or alternatively offer to provide his organizations facilities to MIA students. Such actions, besides continuously keeping the MIA name in the forefront of people's mind in that organization, also has a positive image and prestige building benefits. The MIA Assocations or the MIA Administration therefore has to provide the knowledge that this type of contribution will be welcomed as well as a simple procedure to initiate these actions.

The final point to be made in this section is that the MIA delegate himself should be encouraged to promote the course and should be made aware of the marketing strategy that is being adopted and the objectives

it is sought to achieve. Specific statements to the delegates will probably have a positive motivational effect. Numerous minor ways exist whereby the MIA delegate, in his day to day activities, can promote the MIA concept. This strategy merely suggest that the co-operation and suggestions of the delegates be sought in propogating the course image. A specific statement of the promotional intention to these delegates, particularly when they are in a "team" situation while doing the course work, could have great benefits. Delegates can also be used in various other ways, under the MIA programme - such activities will be discussed in the Chapter on Public Relations.

The effective utilization of all the components of the MIA environment formed the main suggestions of this section - in essence all that is required is for the deliberate harnessing of the potential available, once the key areas and personalities have been identified.

11.2.6 Effective Communications

A lot of emphasis has been placed on attaining media exposure, and gaining editorial and industrial support. All of the previous suggestions hinge on having effective contact and being able to cummunicate with these contacts. While this has been implicitly stated in the previous sections it is of such importance that is believed necessary to highlight explicitly.

To be able to ensure that newsworthy items or functions gain the correct exposure requires a very good relationship with key people - these relationships need to be cultivated deliberately. This task is time consuming and it is necessary to get the assistance of all other components of the MIA mix to establish an effective contact list. As an example two MIA graduates have in fact been working as engineers with the Argus and Die Burger. Their help in cultivating good communication with editorial people could have been used. Over the longer term a list should be built up which provides names and titles of people who could be contacted to assist with the promotions of the MIA. Such a list would include press, radio, TV and magazine editors, academics, industrialists, technical societies, government bodies, etc.

Besides the obvious use that such a contact list could be put to in ensuring that the desired MIA communication is spread in a specific way, it should also perform the function of a mailing list. This marketing strategy involves the development of additional publications such as a newsletter - this type of newsletter could also be distributed to everyone on the mailing list as a form of 'press release'. Regular exposure of the MIA concept to these key people must have a benefit in ensuring that assistance can be solicited at the appropriate time.

Communication of the MIA concept and image is of paramount importance, and a deliberate and planned programme has to be adopted to ensure that the desired communications with the target market are achieved at the lowest cost. Formalized paid advertising should only form a part of the communication with the target market - the balance of the message can be communicated by the factual reporting by various publications on MIA actitivites and promotional ideas.

11.3 ADMINISTRATION OF THE STRATEGY

The advertising and promotional ideas presented in Chapter 11 all imply a considerable dedication of the Department of Mechanical Engineering to the overall objective of the marketing strategy. To implement and monitor such a marketing strategy also will involve a considerable amount of time and effort on the part of the Department, as well as the development of new expertise.

Seen as individual items the components of the strategy represent a formidable amount of work and organization, yet seen as a whole they all follow exactly the same pattern of making the correct contacts, involving these contacts in the MIA programme, and gaining exposure of the MIA as a result of this involvement. If this is borne in mind then the task becomes largely administrative once the correct pattern of contact making is set up and the fundamental structure changes are in existence.

It is therefore believed that while it will be possible for the Department from its existing resources to progress and maintain the strategy, that additional help would be required over the next two years to effectively implement this strategy. It is suggested that either the help of an outside consultant be used to set up the various contacts, procedures and programmes, or that a MIA student be assigned this task as part of the thesis requirements. Ideally an ongoing specialized thesis study group would be established which would have as its task the development of MIA education and concepts, and the responsibility of strategy implementation would be a component of their studies.

One of the base assumptions made regarding this proposed marketing strategy was that no constraints existed regarding implementation and administration of the plan. In practical terms it will require a consistant and dedicated effort from a person who has been allocated the responsibility for this task. If this ideal is not achieved then the advertising and promotional potential could be dormant and the communications impact will decline. It is imperative therefore that progress on the plan should be reviewed and evaluated on a regular basis by concerned people to ensure that at least some aspects of the approved plan are being successfully implemented.

In summary the administration of the marketing strategy is undoubtedly the most important single item that has to be decided upon, and furthermore that no compromise should be attempted regarding availability of manpower or allocation of responsibility. The actual structure of the MIA administration is obviously a matter for internal decision; the purpose of this section was therefore to highlight the problem and to suggest a few alternative methods of staffing the portfolio.

The ideas presented in this Chapter represent only a small percentage of the total number of advertising and promotional methods available. Those topics discussed represent a selection which seeks to complement the image of the MIA as a specialist post graduate course necessary for the progression of the careers of technically trained people. Furthermore this communication has to be done within the constraints of limited availability of funds and manpower. As a result of this heavy reliance this had to be made on attaining exposure as a result of activities which in themselves flow directly from the MIA course.

Marketing strategies are relatively simple to develop, but their inplementation can often be on onerous task. Consequently the marketing plan which is tentatively suggested in Chapter 12 comprehends a very gradual development of some of the ideas suggested in this Chapter to take into account the necessity to gain support from all concerned and to maintain this support on a continuous basis.

CHAPTER 12

PUBLIC RELATIONS

In the previous Chapter various ideas were presented on how to advertise and promote the course. In this Chapter brief mention will be made of some Public Relations devices which could be used which will serve to amplify the advertising and promotional efforts. The dividing line between publicity, promotions and Public Relations is, within the context of the promotion of post graduate courses the MIA course in particular, exceedingly fine. For the purposes of this strategy recommendation a somewhat arbitary division has been made on the basis that some activities are promoted in the sense that these activities will directly lead to the possibility of increased target market awareness of the existence of the MIA and the fields in which it operates.

The type of activities that are discussed here relate more to convincing the external public that the MIA course is of a high standard, is technologically based, and is a prestige post graduate qualification for technically trained people. For a product such as the MIA it is probably impossible to definitively classify topics under Advertising, Publicity, Promotion or Public Relations since they are all interactive - this is particularly so since the marketing strategy does not recommend the particular highlighting of the fact that the University of Cape Town offers the only MIA Course. The separation of the Public Relations function from the rest of the strategy is primarily done on the premise that it is necessary to initially undertake a remedial Public Relation programme prior to actively progressing the other elements of the marketing strategy.

The scope of the Public Relations function is often divided into two approaches:(66)

- preventive Public Relations, which involves warding off poor rapport, requires the institution to make good impressions in all its contacts with it's publics;
- remedial public relations involves the overcoming of sources of ill will, misunderstanding and negative images.

In considering the MIA marketing strategy it was found from the research conducted in Chapter 5 that the MIA graduates had an essentially neutral attitude to the MIA course but also expressed difficulty in concisely describing what they believed the MIA is. The correction of this attitude falls into the category of preventative public relations since it is held that little image in fact exists in the target markets.

Vegter[67] believes that the most important task of public relations lies in establishing, marketing and extending the goodwill of all external groups of the public towards the institution. This goodwill motivates people in these groups to carry out certain tasks to the advantage of the undertaking without expecting any financial compensation.

In making certain public relation suggestions the theme that has been adopted revolves around providing a benefit to the community, and to technical Industry, as a result of the expertise of the MIA body of graduates/delegates. In the following paragraphs an examination will be made of some ways of creating this image.

Some Public Relations Suggestions

(1) In Chapter II various ways were suggested whereby Industry, alumini and delegates could better be utilized in promoting the MIA concept. One particular aspect of this theme, which can best be described in a public relations context, is the establishment of an Industrial Consultancy Service. Suggestions have already been made in Chapter 10 regarding the better utilization of the thesis part of the course as an aid to raising the target markets image of the course. The recommendation of an industrial consultancy service merely expands this idea and explains the public relations possibilities.

Up to this stage the marketing strategy has involved acquiring assistance from outside parties and it is consequently appropriate to consider how the MIA can reciprocate; the offering of a service to technical Industry whereby particular problems or tasks can be tackled by MIA study groups will create goodwill.

By the term industrial consultancy is meant a facility offered by the MIA whereby Industry can request the assistance of the MIA staff, students or the Association in solving a problem; planning and implementing tests; or preparing recommendations. The availability of a wide range of technical disciplines amongst MIA students should ensure that practically every request received from technical industry will be capable of consideration by an interdisciplinary team of graduates. Particularly in the case of small to medium size undertakings access to such a facility through a publicised and structured procedure, should be well supported. To elaborate the concept the following examples are suggested:

- a small paint factory might require suggestions as to optimum factory layout and design
- a labour intensive textile undertaking might welcome work study recommendations
- a firm diversifying into the field of civil engineering could request assistance on equipment recommendations
- an electronics firm might wish, on an anonymous basis, to have its products tested and evaluated in a particular environment.

These projects would then be assigned to a MIA thesis student, or to a MIA study group, for action. The industrial consultancy service, which it is recommended be offered on a free of charge basis, has public relations benefits for the MIA in that the service offered, the successes scored and the help given to Industry can all be used to reinforce the proposed MIA image in its target markets. If the service is deliberately structured in such a way that only practical technical projects are tackled and that the solutions offered are equally sound and cost efficient then very positive image building can take place. As an aside the provision of a number of real and practically based thesis topics to aspirant MIA thesis students can in itself be a motivating factor to choose the MIA - topic selection traditionally being one of the least satisfactory elements of a Masters' degree programme.

The dissemination of the knowledge that such a consultancy service is available from the MIA, at no charge, once again requires a deliberate programme of journal and press utilization, workshops and seminars. The

actual accumulation of such information should not be a problem since the idea is not only newsworthy but would provide readers of all technical publications with a benefit - consequently it would also be beneficial to that publication to propogate the idea that only by reading that publication had the reader been aware of the scheme. To ensure maximum benefit to the MIA any success stories attributable to the MIA's assistance should also be highlighted.

The overall objective of this scheme is to fundamentally convince the target markets that the MIA attracts technical graduates of all disciplines who, as a result of experience and their MIA course, are able to constructively assist technical industry. If the Industrial consultancy service provides a good efficient service at a high level then the MIA itself will too acquire a high level and efficient image in its target market as a result of this activity. This image transferrence should not only be amongst those people who have used the service but should, if the communications are good, also take place amongst Industry as a whole and amongst potential MIA delegates.

(11) An extension of this consultancy service would be to approach organizations such as the Urban Foundation and the Small Business Foundation offering the services of the MIA for some of their projects. This public relations gesture will probably receive favourable reaction from these organizations but probably, more importantly, associating the MIA with these high exposure organizations can maximize the positive status of the MIA as a qualification which has immediate and practical use. Also these types of service organizations are associated with highly influential organizations and individuals which could become valuable contacts for some of the promotional ideas that need to be developed. These organizations would utilize their considerable influence in the various media to advise the public that they have now established a mechanism whereby technical projects can be assisted by a highly professional institution/organization at no cost. By implication these prestigious bodies have endorsed the MIA as an instrument which can provide solutions as a result of its technical/management nature.

As pointed out previously, besides the image factor benefit to the MIA, certain practical benefits may flow such as sponsorships, financial assistance, bursaries, contacts, provision of delegates, etc. In return for these potential benefits all the MIA has to do is communicate the availability of a service which in fact is nothing more than a more co-ordinated version of the individual thesis work being undertaken at present by MIA students. To put the overall concept into perspective it should be mentioned that, particularly in the case of organizations such as the Small Business Foundation, most of the developments take place in a commercial/retailing environment and the number of industrial projects that could result is, at this stage, not inordinately large. What is being sought are the Public Relations benefits rather than an inflow of actual projects. Over the longer term these public relations excercises could result in say an "Urban Foundation Research Group" sponsored by Industry. This will therefore not only be financially and academically advantageous but will help convey the necessary prestige and recognition which is currently lacking in the MIA concept.

(111) Chapters 10 and 11 contained recommendations whereby the MIA concept should become a nationally as opposed to a locally obtainable qualification. The rationale used being that the MIA concept itself should become a necessary or desired post graduate qualification of all technically qualified people in middle management, and that consequently facilities should be available on a national basis. To ensure that such a suggestion becomes reality would involve extensive co-operation with Professional Societies and Universities. This type of co-operation has definite Public Relations benefits in that the MIA concept will be seen to carry the approval of other institutions which have a recognisable influence on the requirements for management in technical industry.

The first step in this process would be for the Department to approach bodies such as the Federation of Societies of Professional Engineers and the Associated Scientific and Technical Societies of South Africa. Such an

approach would be primarily aimed at requesting these umbrella bodies to assist the Department's approach to individual Member Societies whereby formal sanction could be gained for the MIA course concept. Each society would be provided with full details of the MIA course, its objectives and its proposed national base - this approach would specifically state that it was intended to ensure that the MIA becomes a recognizable technical professional qualification and that their co-operation/assistance/course recognition would be useful.

Provided that a consistent and logical approach was used it is likely that specific support and recognition would ultimately be forthcoming from most societies and their individual members.

In this event two distinct Public Relations benefits have been achieved. Firstly the Societies and the individual members are directly made aware of the MIA concept, and are forced to consider its merits/benefits, and decide on its relevance. This process is invaluable in providing the Department the opportunity to present the MIA product profit in exactly the way it wishes the profile to become established. Direct exposure of the correct profile to this audience will adequately perform the preventative public relations function of creating the desired impression. The second benefit which could arise out of successful discussions with the Professional Societies will be that the MIA will be able to include statements in it's promotional literature that "The MIA is recognised as a valuable and necessary qualification by the South African Institutes of Chemical, Civil and Mechanical Engineers". To be able to make this type of claim can decisively influence the decision of a potential MIA delegate to register for the MIA rather than a competitive course. The attainment of this support can form a major platform on which the image of a specialized, professional and semi-mandatory course can be built. The ultimate aim could be to involve the societies in the course itself by providing lecturers, external examiners and by controlling standards, but obviously this should not form any part of the discussion in the medium term.

Once the support of the Professional Societies has been enlisted then the other Universities can be approached requesting them to consider participating in the MIA programme concept. This aspect has already been discussed in

Chapter 10. On the assumption that other MIA programmes are operative then additional co-operation between the institutions offering the MIA should be considered. If it is possible to arrange that joint research projects are undertaken, visiting lecturers are exchanged, courses passed are reciprocally recognised and that the facility exists to do the course work in one centre while doing the thesis work in another centre. On a public relations basis this offers the target markets demonstratable proof of the national acceptability/necessity of the qualification. In this entire process what is really being sought is the transference of the professional/academic image of these bodies to the MIA concept.

In this regard the participation of other universities in a MIA programme reinforces the validity of the qualification and provides a far greater number of MIA graduates. This therefore will also benefit the UCT MIA since it is hoped that the technical graduates in the Western Cape will eventually ask "where can I do my MIA" - if this state of affairs is attained then the Public Relations, Promotions and Advertising elements of the marketing strategy would have been successful. Another reason for suggesting that a more effective Public Relations image will develop as a result of co-operation between the universities and the Professional Societies will be that this unified approach will highlight another difference between the MIA and the MBA. The Graduate Schools of Business are to some extent fiercely competitive with each other, partly because they have to rely on their individual track record and image to attract delegates since no logical Professional Society back-up is available. What is envisaged in this strategy is the development of a separate and definite field of professional education which in extent will be similar to qualifications such as the C.A. (which is national, recognised by the profession, and university and professional society based). Public relations support is acquired by showing the target markets the co-operation and association between the professional, academic and industrial segments of the market in providing the MTA programme facility

(1V) Another way in which a better understanding and appreciation of the MIA may be obtained would be to <u>directly canvass industry</u>. Once again this suggestion is a logical element of the promotion suggested in 11.2.5. On a

public relations basis this approach would not revolve around soliciting help but in advising industry of the benefits available to Industry and the country of the MIA concept. This public relations activity will therefore involve appraising predominantly top management of the facilities and advantages of the MIA. These activities can be done by way of a prestige journal, by workshops/seminars, or by direct interviews with key people, etc.

This type of approach normally would be a precursor to more definite requests for participation, support, sponsorship etc. The point is made that means should be found whereby Industry is made aware of exactly what the MIA programme involves.

Probably the most efficient way is for a gradual and planned programme of visits to key undertakings in the direct area of influence of the UCT MIA course.

(V) Seminars for Senior Management, besides providing revenue to the Department and academic benefit to the participants, perform a valuable public relations function. In this context what is suggested is that certain "MIA based" courses be provided for Senior Members of industry on an intensive and short (approximately 7 day) basis. These courses would provide a vehicle for demonstrating to those decision makers, who would not necessarily be potential candidates for the MIA course, that the MIA programme itself has value, status and benefit to all concerned. The opportunity would be taken to ensure that all delegates to the course would leave with a positive impression of the MIA product profile in addition to the knowledge gained on the particular course. These delegates would then be in a position to consider the MIA as a means of benefiting their enterprise or their staff. Such techniques are not new, and are standard practice in Business Schools both in South Africa or abroad (e.g. The Advanced Management Programme at Harvard University).
Within the context of the specialized nature of the MIA the type of seminars or course that could be considered may be

"Industrial Management in South Africa"
"Cost control and safety in Industry"

"Engineering Education in South Africa"

"Technology and Management in Industry"

The course content, timing and presenters should all be selected on the basis that the activities have a definite public relations impact on the market, and cognisance must be taken of the image impact of such courses. On a pure marketing basis it is extremely difficult to market a single product which is seen by the market to be decidedly different from the balance of the product range. Consequently the provision of additional short courses will provide the market with some substantiation of the expertise of the entire Department to in fact conduct courses such as the MIA. The objective of the provision of these short courses is therefore not only to provide Industry with a recognised short course service, and to improve Department revenues, but also to provide positive support and image transference to the MIA.

Large undertakings in Industry are particularly receptive to encouraging appropriate Senior staff to attend short training courses and it is suggested that little difficulty will be experienced in attracting sufficient delegates to these short courses - provided that the course programme is informative and recognizably beneficial to the participants.

Mention has been made of the fact that financial benefits could flow from the running of these short courses; this is evident from the sudden burgeoning of commercial undertakings providing management training courses. However, it is not only from the point of view of the pure money receipts for these courses that the issue should be examined, since considerable advertising exposure will also be obtained in these courses. This type of exposure, even though not directly related to the MIA, will ultimately enable a decreased advertising exposure of pure MIA advertisements to be achieved and hence save costs.

(V1) Reciprocal recognition overseas Over the past 5 years the Department has built up many contacts with overseas universities, particularly by means of visiting lecturers (e.g. University of Loughborough; University of

Glasgow). An examination should be made of the possibilities of MIA graduates to be accepted for say doctorial studies at these Universities, or to get exemption from certain requirements. If it is possible to gain such official recognition of the MIA from well known overseas universities then an important public relations tool will become available. In view of the objective of maximizing the image of the MIA as a specialized professional qualification, any method which reinforces this view becomes relevant - certainly an impartial and prestige recognition from an overseas institution will enable a positive public relations stance to be adopted. Such a stance will indicate to the public that the MIA concept is general and the UCT MIA in particular is widely accepted by local and overseas universities as well as South Africa Professional Associations.

A more active liaison with overseas universities may, in addition to direct recognition of the MIA, also be stretched to doing comparitive research studies, lecturer exchanges, joint projects, etc. These activities will enhance the image of the MIA as a valuable and recognized qualification for the technical graduate.It should once again be emphasized that these public relations suggestions in themselves do not provide marketing benefits (except in terms of MIA product improvement), but what they do provide is the facility to provide ammunition for promotional and advertising campaigns as well as the opportunity for additional exposure to the target markets. Should such a recognition be established then the fact could be publisized in the MIA newsletter, press released to appropriate publications, and mentioned to participants on the courses proposed. All of this actively reinforces the image of the MIA with the target markets; ultimately this should be transferred to more vigorous delegate registration for the MIA itself.

The recognition of the MIA by Professional Societies and local Universities, as discussed in (111) , has a similar Public Relations impact, as recognition by overseas universities. The distinction of overseas recognition versus local recognition is made since the objectives and procedure are different: locally it is recommended that other MIA courses be established to give credence to the national character of the MIA concpet, while overseas recognition is needed primarily as a status/image supportive claim for the UCT MIA in particular.

(V11)Areas of Specialization

It has already been mentioned in various contexts how specialized study groups or particular study areas could be set up and it is consequently unnecessary to discuss the rationale again. Under a public relations spotlight it is important to consider the effect that such centres of expertise could have on the various publics. Groups such as the Energy Research Institute at UCT or the Bureau for Economic Research at Stellenbosch convey a positive image to their parent Departments. In a public relations context therefore it is suggested that the MIA programme evolve, over the next few years a particular area of Industrial Expertise which will become linked with the Department and the MIA. Nothing new is being suggested here except that when study groups are formulated and developed a critical eye should be cast on the possible utilization of the activities of these groups for Public Relations purposes and the subsequent selection of a particular study area which is to carry the main Public Relations thrust. As a concrete example of this principle it can be hypothized that a study group developed which specialized in Plant location and factory layout. This area of study would, on a large-scale basis, probably be unique in South Africa. Authoritive statements could be issued on controversial subjects e.g. Koeberg Power Station study or border industries and, over the longer term, specialized studies might be commissioned by outside parties, Government or Industry. On a public relations basis the benefit lies in the various publics seeing the MIA based groups providing a real and respected service to the community, rather than numerous research projects being proceeded with on an ad hoc basis and certainly unknown to the target market. Therefore, ultimately, the MIA and a particular area of expertise could almost become synonomous - except that the research group might get automatic exposure as a result of its authoritative reputation. The product image of both segments of the MIA would then have been successfully conveyed.

(V111)Existing manpower reserves

The most all embracing and obvious suggestion is probably the most important. This involves motivating all people who have been or who are associated with the MIA to influence those people they come into contact with of the merits, advantages and product profile of the MIA. It is recommended that this request should not be directly made but should rather be implied, and suggested through newsletters, seminars, assistance requests, etc. The advantage of this route is that there is greater flexibility to continuously ask and remind these people of the necessity of creating the correct attitude amongst the basic publics - a direct written appeal can often be counter productive and cannot be repeated on a regular basis.

Effective utilization of existing manpower resources to help create the correct positive attitudes is an overriding task which actively embraces all the public relations and promotional elements discussed so far. Consequently this aspect of using MIA staff and students should not be forgotten and should be maximized at all times.

The various suggestions listed here represent only a small selection of the Public Relations possibilites. What has been suggested is that it is necessary to present the MIA to the various publics as a professional, specialized, well respected and necessary qualification for technical graduates. These ideas can be conveyed by product advertising, publicity and promotions but in addition it is necessary to acquire a certain type of exposure which more subtly reinforces the basics of the MIA course. This reinforcement highlights the positive way in which benefits flow from the MIA to other segments of the market and, by implication, how similar benefits and prestige can flow to the MIA delegate. Of utmost importance in fostering these positive Public Relation attitudes is the realization that all components of the marketing strategy, (staff, students, alumini, product) carry the Public Relations burden.

The Public Relations stance adopted has sought to consistantly make a professional and technical impression flow from the MIA to the Public. At the same time it is hoped that the overall strategy will help correct existing misunderstanding and negative images which may already exist in the market.

CHAPTER 13

THE MARKETING PLAN

The previous Chapters have sought to examine the MIA within the context of its marketing environment and the needs of the marketplace.
The methodology adopted involved examining the MIA course at UCT on an historical basis and then, by means of an attitudinal survey of previous MIA graduates establishing criteria which represented important motivational factors to these graduates. The criteria were then examined in comparison with the satisfaction of these needs by competitive products, and an ideal product profile was established which provided certain points of uniqueness for the MIA concept. Once the product profile was established it was possible to evolve a marketing strategy which would enable the MIA concept in its revised form to become accepted in the market place. Details of the components of this marketing strategy in terms of Product and Promotions were than suggested. These proposals were made in general terms and little indication was given of timing and/or details of the individual items.
It therefore remains to provide a brief indication of the recommended timings and sequence of the individual actions proposed. (Action Programme).

The term marketing plan is interpreted here to be a concise summation of the current situation of the MIA; followed by a statement of objectives and goals; a strategy outline; and finally an action programme. While the marketing plan is in effect a repetition of the substance of the study, such repetition will serve to reinforce the salient findings and recommendations of this study.

Current Situation

The MIA programme had run successfully for 5 years - until 1981 when no course was run primarily due to the fact that too few delegates had applied to participate on the course. This poor response probably represents the cumulative effect of poorly programmed advertising, a nebulous target market image of the MIA course, the exceedingly low

target market exposure of the MIA concept and course, combined with the Department's concentration on the introduction of the ME 501 course during 1981.

Concern was obviously felt regarding the relevance of the MIA course, its future over the long term and the most effective way to promote the MIA course.

By 1980 95 delegates had attended the 5 MIA courses which had been run, and a regular number of these MIA graduates completed the full Masters degree in subsequent years. A survey of successful delegates showed that they predominently felt that the MIA course had relevance, and been worthwhile, but needed to be more effectively promoted. Concern was also expressed that the MIA would not achieve its true recognition in the market place and that consequently their personal efforts might also not receive adequate recognition in terms of career prospects.

It was therefore felt necessary and appropriate to critically examine the MIA course, its objectives, its competitors, and the needs of the market, with the aim of formulating an effective marketing strategy. It was also hoped that the study would assist other courses who might be formulating a marketing strategy by amplifying a typical marketing strategy development. The next few sections outline the major finding and recommendations of the marketing strategy which evolved through the research and analysis undertaken in this study.

Objectives

The overall objective is to communicate effectively to the target markets identified a consistent message that the MIA offers a unique product specially applicable to technical graduates and technical Industry. Implied in this communication is a need to maximize the exposure of the MIA course, its delegates and its graduates.

Certain elements of a proposed MIA product profile and image were isolated and developed:

- A need to entrench a particular name (the name MIA programme was recommended).
- A need to highlight the concept that the MIA was a specialist post graduate course designed for technical graduates at middle management level in Industry.
- A need to stress that the MIA offers a logical and necessary extension to all technical graduates education, and that the MIA is recognised by the Professional societies as being an approved route.
- A need to show that the MIA's aim was to make the management of technical industry more efficient, and that furthermore the MIA is somewhat unique in offering this specialization.
- A need to involve the MIA more directly with Industry.
- A need to make the thesis element of the MIA course a more important element of the MIA product profile.
- A need to reinforce the perceived idea that the MIA was practically based, non-flamboyant , and was of real benefit to both the delegate and Industry.

Having highlighted these elements it was recommended that deliberate and specific programmes of advertising, promotion and public relations activities should be undertaken with the aim of ensuring that the target markets were constantly exposed to the desired MIA concept.

The specific aim of these communications activities is to ensure that the MIA is adequately supported by Industry and that a regular number of high quality MIA delegates will be obtained. As a result of this the MIA concept will become entrenched and recognised by all components of the market including its competitors.

Strategy Outline

The marketing strategy that evolved from the investigations into the market essentially involves a process of presenting the product profile and image to the target market. This communication requires an imaginative and innovative appreciation of the advertising and promotional facilities which are available, often at no cost.

The strategy envisages certain changes to the MIA product which will have the result of more fully justifying the desired product profile. Those suggestions involve a consistent name, a higher standard, revised selection procedures, emphasis on the thesis element of the MIA, and the establishment of areas of specialized studies.

Furthermore the strategy seeks to cater for a specific target market namely the technically qualified graduate and technical Industry. This implies the creation of a separate field of study which is not specifically offered in South Africa at the present time and which does not directly try to compete with any other course offered on a part-time basis.

Once the product segment of the marketing mix is finalized then a strategy of maximizing exposure of the MIA concept, preferably through interaction with Industry, is recommended. Promotion of the desired concept on a regular basis forms the kernal of the marketing strategy - a prestige building and communications programme.

Finally the strategy calls for high level contributions from the Department, alumini, Industry and delegates towards the achievment of the MIA objectives. Also stressed was the fact that a strong commitment to the entire marketing strategy would have to be obtained from the MIA Administrators who would constantly have to instigate and devise advertising, promotion and public relations activities. This would require a sizably increased work-load and the suggestion is made that the definite help of thesis students or outside consultants be sought in the earlier years. A major assumption is therefore made that no manpower restraints actually will exist.

In essence the marketing strategy may be summarized as a planned process of rationalizing the MIA product, selecting and developing a specific segment of the market, and finally to maximize all available opportunities to expose the MIA concept to the target markets.

Chapters 9 to 12 provided some thoughts and recommendations on how this strategy could be implemented. While it was stressed that the individual concepts discussed were not exhaustive in scope, they nevertheless had validity in that they provided some basis for strategy amplification and development. As a further example of the more definitive strategy implementation the next section sets out a speciman marketing plan which provides a sequence and timing for some of the activities suggested in previous Chapters.

Action Plan

The action plan (which could also be called a marketing plan based on the marketing strategy which has been evolved) will provide a list of activities in the approximate order of priority in which each item should be tackled. Also included are approximate timings on the basis that the action plan would commence early in 1982 - the plan stretches over a period of about 4 years at the end of which period the entire study should be repeated and reviewed in the light of the success of the strategy and other activities in the market place. This is not to say that a more regular review of the relevance of the marketing effort should not be done on a constant basis, but rather to emphasize that by their nature these recommendations are of long term nature and will require time to become effective.

Activity	Year
Product review and adaptions	1982
- review standards	
- entrance procedures	
- thesis groups	
Advertising	1982
- decide on budgets	
- select media and frequency	
- commence campaign at maximum frequency	

Promotion 1982

- establish media contacts
- plan for utilization of visiting lecturers

Public Relations 1982

- commence liaison with Professional Associations
- commence liaison with other Universities

Product Review 1983

- brochure & application forms
- plan for establishment of other MIA courses
- involve MIA thesis students in strategy

Advertising 1983

- continue at maximum frequency permitted by budget
- plan for non formalized advertising

Promotions 1983

- organize Alumini clubs
- begin canvass of Industry
- first presentation to Industry

Public Relations 1983

- plan and announce consultancy service
- organize recognition of MIA by Professional Association and universities
- arrange seminars for senior management

Product 1984

- complete product review
- utilize thesis groups to create areas of specialization

Advertising 1984

- review media selection and frequency
- commence non formalized advertising

Promotions 1984

- review media selection and frequency
- commence non formalized advertising

Promotions 1984

- involve Alumini
- involve Industry
- presentations to Industry
- fullscale information/consultancy service

Public Relations 1984

- arrange series of seminars for management
- arrange reciprocal overseas recognition
- intensive canvass of Industry

Product 1985

- review changes necessary

Advertising 1985

- maximum usage of publicity
- continue at frequency level selected previously but with pruned media selection

Promotion

- build on previous years' activities
- high exposure wherever possible

Public Relations 1985

- projects for Industry/Urban Foundation
- maximize use of specialist areas of expertise

Review Marketing Strategy and Plan 1986

This skeleton outline has to be read in conjunction with the previous Chapters so as to interpret some of the topic headings listed. It should be emphazized that all this action plan in reality explains is that the various activities should be seen as being implemented over a relatively long period and that it is also necessary to plan in advance to ensure optimum chance of success. The suggested sequence of Promotional and Public Relations items are probably interchangeable - what is important however is that the product review and adaption should be the first element of the action plan to be attempted.
Also the early years of the action plan should be characterized by the highest level of advertising; in later years this can be modified to more directly comprehend financial constraints.

Conclusion

This study has analysed the marketing environment and formulated a possible marketing strategy, together with certain specific suggestions on how to proceed with the strategy formulated. The objective was not only to make a positive contribution regarding a marketing strategy for the MIA, but also to demonstrate, in more general terms, the process of formulating a marketing strategy.

It was found that the MIA concept has potential and validity but that considerable efforts will be required to ensure that the requisite exposure and image communication will be achieved over the long term.
If a diligent and concerted effort is made by all concerned to actively

proceed with a marketing strategy based on the recommendations made in this study then it is believed that a continued demand will be created in the marketplace for the MIA Programme.

The study has selected a particular example to illustrate that marketing theory can be applicable to numerous fields. Furthermore that specific needs exist in the area of marketing academic courses and that the marketing potential of some courses, such as the MIA, has not been sufficiently exploited.

APPENDIX 1

UNIVERSITY OF CAPE TOWN

(WITH WHICH IS INCORPORATED THE SOUTH AFRICAN COLLEGE)

TELEPHONE: 69-8631
AFTER HOURS: 69-8635

DEPARTMENT OF MECHANICAL ENGINEERING,
UNIVERSITY PRIVATE BAG
RONDEBOSCH
7700

INDUSTRIAL ADMINISTRATION PROGRAMME

UNIVERSITY OF CAPE TOWN

1 9 7 8

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PRELIMINARY APPLICATION FORM

NOTE :

1) The contents of this Application Form will be treated in strictest confidence.

2) Copies of Degrees or other educational certificates must be submitted with this form.

3) This form must be returned to :

Professor R.K. Dutkiewicz,
Industrial Administration Programme,
University of Cape Town,
Private Bag,
RONDEBOSCH
7700.

INDUSTRIAL ADMINISTRATION PROGRAMME - 1978

1) Name ----------
(Surname) (First names)

Postal Address ----------

Telephone : Home ----------

Bus. ----------

Signature ----------

2) Date of Birth ----------
Age on 26th February, 1978 ----------

3) Place of Birth ----------

4) Marital Status ----------

5) Number and ages of children ----------

6) Father's Occupation ----------
(If retired, give occupation before retirement)

7) Nationality ----------

8) Population Group

9) Will your participation on the course be sponsored by a firm? YES/NO

If YES, to what extent? ----------

10) Please list all secondary schools, colleges and universities attended and qualifications received :

School, College & University	Years attended From	To	Qualification Received
----------	----------		----------
----------	----------		----------
----------	----------		----------
----------	----------		----------
----------	----------		----------
----------	----------		----------
----------	----------		----------

11) Please list all practical training, including pupilage, apprenticeship, etc. :

Company	Period attended From	To	Type of Training
----------	----------		----------
----------	----------		----------
----------	----------		----------
----------	----------		----------
----------	----------		----------
----------	----------		----------
----------	----------		----------

12) Please give details of military record (e.g. Rank, branch of service, duration, distinctions, etc.)

---

13) Details of present employment :

Employer ----------

Address ----------

Position held ----------

Period in present position ----------

13) **Details of present employment - continued :**

Annual Salary ----------
Value and type of fringe benefits ----------

Degree of responsibility ----------

Position of immediate superior ----------
Total number of employees in firm ----------

14) Career subsequent to training and prior to present employment :

Name and address of employers	Position Held	Duration From	Duration To	Annual Salary
---	---	---		---
---	---	---		---
---	---	---		---
---	---	---		---
---	---	---		---
---	---	---		---
---	---	---		---

15) Give details of professional and institutional membership :
(Write name in full)

Institution	Grade of Membership	Year elected to this grade
---	---	---
---	---	---
---	---	---
---	---	---
---	---	---
---	---	---

16) **Please list your present hobbies, interests, sports, played and extra-curricular activities :**

---

17) **Please list community activities and interests :**

Type of activity	No. of years
----------	----------
----------	----------
----------	----------

18) **What is your standard of proficiency (good, moderate, poor) in :**

	Understanding	Speaking	Reading	Writing
Afrikaans	------	------	------	------
English	------	------	------	------
---------	------	------	------	------
---------	------	------	------	------

19) Home language ----------

20) What is your level of mathematical learning and how do you rate your mathematical ability? (Good, moderate, poor)

---

21) Are you considering going on to the Masters Degree in Industrial Administration after the Diploma?

YES/NO

22) **Why are you considering getting a qualification in Industrial Administration?**

---

23) **Please give a candid evaluation of yourself, discussing both your strength and weakness.**

---

24) Please submit the names and addresses of two referees (Not relatives)

Name ----------
Address ----------

Name ----------
Address ----------
---

25) **Please give any further details which might aid the Selection Committee in its evaluation of your application :**

---

26) **If you will be away on holiday during December and January, please indicate period :**

From ---------- To ----------

industrial administration programme

UNIVERSITY OF CAPE TOWN
Department of Mechanical Engineering
Private Bag
RONDEBOSCH
7700
Telephone 69-8531

RKD/RL

18th May 1981

Dear Delegate

The Industrial Administration Programme has now run successfully for 5 years but, it is felt that more positive marketing would increase numbers, make the course more viable and assist in continuing to attract applicants of high calibre.

In an attempt to achieve this a research thesis is currently being compiled which will formulate a definitive and consistant marketing strategy for the IAP course. It is obviously important to define what motivates people to do the IAP and also what sort of 'product' and 'consumer' profiles exist or should be developed. The attached questionnaire has been designed to help answer these questions and your assistance in filling in and submitting this questionnaire will be greatly appreciated.

As you know, there are only a limited number of graduates of the IAP and it is consequently of vital importance that each person approached does, in fact, return this questionnaire. Your help is needed to ensure that the maximum possible response is obtained and hence help the attainment of an accurate profile of the group of past delegates.

We believe that the filling in of this questionnaire will be relatively quick and easy (approximately ½ hour). Your response will also be of great assistance in helping to ensure that the IAP attains its proper status in the degree market. Please fill in the questionnaire immediately - it will remove the niggle from your mind and save us later on from having to nag you for a response! All replies will be kept strictly confidential and are numbered only to validate which responses have been received.

Thank you for your co-operation - it would be appreciated if all responses could be received by the University not later than 22nd June 1981.

Yours sincerely, Signed by candidate

Signature Removed

PROFESSOR R K DUTKIEWICZ
Head of Department

Enc:

APPENDIX 2

QUESTIONNAIRE

INDUSTRIAL ADMINISTRATION GRADUATES

Questionnare No. _____

Year Attended _____

The aim of this questionnaire is to try to ascertain the real needs of IAP delegates and to utilize this information for the effective promotion of the course. It would thus be appreciated if the following questions could be answered as honestly as possible. Strict confidentiality of your response will be ensured.

Notes

(a) Please tick the most appropriate statement or fill in the indicated blank space.

(b) Certain questions require a rating scale to be used. In all cases the scale from 1 to 5 is as follows:

1	=	extremely positive/important/impressive etc.
2	=	moderately positive/important/impressive etc.
3	=	neutral/as expected/average
4	=	moderately negative/unimportant/unimpressive etc.
5	=	extremely negative/unimportant/unimpressive etc.

(c) The questionnaire has been formulated in terms of engineers, but all disciplines are implied in the questions.

(d) Reference to the IAP course normally implies the examination section of the Degree.

(b) Please describe your REAL motivation for deciding to do the IAP. Once again, please be as honest as possible in analysing your true reasons for selecting the IAP.

.....

.....

.....

4. The following factors represent some suggested motivations for initially doing the IAP. On the assumption that you have finally selected to register for the IAP, as opposed to any other course, please rank each of the following motivating factors on the scale of 1 to 5:

Tick the appropriate ranking

(i)	A qualification from a university	1 2 3 4 5
(ii)	A qualification from the University of Cape Town	1 2 3 4 5
(iii)	Prospects and career advancement	1 2 3 4 5
(iv)	To facilitate the move from pure engineering to engineering management	1 2 3 4 5
(v)	To facilitate the move away from engineering to generalized management	1 2 3 4 5
(vi)	To obtain formal training in accounting, finance, law, management etc.	1 2 3 4 5
(vii)	To obtain formal training in industrial engineering subjects, e.g. work study, production control, etc.	1 2 3 4 5
(viii)	To bridge gap in original technical training	1 2 3 4 5

(ix) Personal knowledge bid, i.e. academic and professional interest 1 2 3 4 5

(x) A Master's Degree qualification 1 2 3 4 5

(xi) Short duration of course 1 2 3 4 5

(xii) Part-time nature of the course 1 2 3 4 5

(xiii) To facilitate change of present job sphere (e.g. from public to private sector or from engineering to marketing, etc.) 1 2 3 4 5

(xiv) Because of the status, prestige and recognition of the IAP 1 2 3 4 5

(xv) For personal status, prestige and recognition 1 2 3 4 5

(xvi) Easier qualification to obtain than other qualifications 1 2 3 4 5

(xvii) Other motivations (specify) 1 2 3 4 5

..... 1 2 3 4 5

..... 1 2 3 4 5

5. Please rank how important a part the academic content of the IAP played in your decision to do the IAP, <u>prior</u> to your registering for the IAP. 1 2 3 4 5

6. Please tick the response which most closely approximates <u>your</u> attitudes and opinions.

(i)(a) The course as a whole was:

better than expected/as expected/worse than expected

(b) Why?

.....

.....

(ii) The overall academic standard of the course was:

high/moderate/average/mediocre/poor

(iii) The generalized overall capability of my fellow delegates was

very impressive/moderately impressive/average/slightly unimpressive/unimpressive

(iv) The course extended me, with respect to the amount of time required to successfully complete the course:

far too much/too much/about correct/too little/far to little

(v) The contribution by the University to the course with respect to administation/lecturers/thesis supervision/etc. was

very satisfactory/satisfactory/adequate/unsatisfactory/ highly unsatisfactory

Please amplify your sentiments regarding the above if you so wish:

.....

.....

.....

.....

.....

7. Do you believe that the course has helped your career prospects

- within your present company? YES/NO
- if you seek other employment in your existing field YES/NO
- should you change your field of employment YES/NO

Would any of the above 'No' answers have been 'Yes' if you had obtained the master's degree instead of the diploma

YES/NO/NOT APPLICABLE
SINCE HAVE MASTERS

8. (i) Various statements have been made (e.g. in current advertising brochures) indicating the essential distinguishing features of the IAP. Please list some criteria which you, now that you have completed the course believe are essential distinguishing features of the IAP concept as a whole.

.....
.....
.....

(ii) Now That you have done the IAP what do you believe is the factor which makes the IAP course unique compared to any other courses?

.....

(iii)(a) Do you find it awkward to answer the question (regarding the IAP) "What course did you do at UCT?" YES/NO

(b) How do you answer the question, regarding having done the IAP, "What course did you do at UCT?"

.....
.....

9. Do you believe that:

- This type of course be made compulsory for Professional Engineer status? YES/NO
- Doctoral studies should be encouraged in the IAP direction YES/NO
- You would like to study further YES/NO
  If YES, specify course and direction

.....

10. Please sketch your career subsequent to course (In particular, where employed; position held; approximate annual salary(s); reasons for changing employment if applicable)

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11. Please indicate sphere of your current employment (viz. civil engineering consulting, government services, manufacturing industry, etc).

.....

12. Any comments you may wish to make regarding ways of improving the course, marketing, promoting, overall course structure, delegates' motivations, etc. etc. will be most gratefully received.

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Thank you for your assistance - your contribution will be of value in formulating a marketing strategy.

Please post immediately to:

The Industrial Administration Programme
Department of Mechanical Engineering
University of Cape Town
Private Bag
RONDEBOSCH 7700

APPENDIX 3

Table A3.1

Q1. Method of learning of existence of IAP

YEAR	OTHER	AT UNIVERSITY	FRIENDS/ COLLEAGUES	ADVERTISE-MENTS	PROFESS-IONAL PUBLIC-ATIONS	EMPLOYER
1976	0	2	0	2	1	0
1977	1	0	3	5	0	1
1978	6	0	3	2	1	0
1979	0	0	3	6	0	0
1980	0	3	8	6	0	1
TOTAL	7	5	17	21	2	2
%	13	9	32	39	3	4

Table A3.2

Q2. Alternative Courses evaluated

(Actual Response)

YEAR	% DELEGATES WHO CONSIDERED COURSES OTHER THAN IAP	COURSES CONSIDERED (ACTUAL RESPONSE)			
		MBA	MBL	B.Com / M.Com	Other
1976	80%	3	0	1	0
1977	75%	6	1	0	0
1978	55%	3	1	1	0
1979	62%	4	0	0	1
1980	70%	7	3	1	3
OVERALL	67%	23	5	3	4

Table A3.3

Q3(a) Real Motivation for studying further

RANK	MOTIVATION	FREQUENCY	%	PRE-COURSE R... (SEE TABLE 5.5)
1	Management expertise	21	32	1
2	Post Graduate/Masters	11	17	7
3	Knowledge/Broaden outlook	10	15	10
4	Career Prospect	6	9	3
5	Stimulation/Occupy mind	5	8	Not ranked
5	Qualif. in Ind. Eng.	5	8	12
6	Business/Accounting Financial Training	1	1	Not ranked
7	Spare time available	1	1	Not ranked
7	Complement Technical Training	1	1	1
7	Get out of Army	1	1	Not ranked
7	Break out of Engineering	1	1	Not ranked
TOTAL		66	100	

Table A3.4

Q3(b) Real Motivation for choosing IAP

RANK	MOTIVATION	FREQUENCY	%
1	Part time	15	19
2	Short	11	14
3	Engineering oriented	9	11
4	Curriculum/Subjects Offered	7	9
5	To get Management Expertise	6	7
6	Cheap/No loss of income	5	6
7	Masters Degree	4	5
8	Easy	3	4
9	Production/Industrial Engineering	3	4
10	Live lecturers/interactive	2	3
11	Various other motivations	14	18
TOTAL		79	100

Note: The category "various other motivations" consisted of 14 single responses.

Q4 Motivation for selecting the IAP

Table A3.5

Q4(I) A qualification from a University

RANK	FREQUENCY	%	WEIGHTED FREQUENCY
1	12	25	12
2	16	33	32
3	11	23	33
4	7	14	28
5	3	5	15
TOTAL	49	100	120
		ADJUSTED	120
		MEAN	2.45

Table A3.6

Q4(II) A qualification from the University of Cape Town

RANK	FREQUENCY	%	WEIGHTED FREQUENCY
1	3	6	3
2	14	29	28
3	20	41	60
4	9	18	36
5	3	6	15
TOTAL	49	100	142
		ADJUSTED	142
		MEAN	2.90

Table A3.7

Q4(III) Prospects and Career Advancement

RANK	FREQUENCY	%	WEIGHTED FREQUENCY
1	30	63	30
2	12	25	24
3	3	6	9
4	2	4	8
5	1	2	5
TOTAL	48	100	76
		ADJUSTED	78
		MEAN	1.59

Table A3.8

Q4(IV) Facilitate move from pure engineering to engineering management

RANK	FREQUENCY	%	WEIGHTED FREQUENCY
1	19	42	19
2	17	38	34
3	4	9	12
4	1	2	4
5	4	9	20
TOTAL	45	100	89
		ADJUSTED	97
		MEAN	1.98

Table A3.9

Q4(V) Facilitate move away from engineering to generalized management

RANK	FREQUENCY	%	WEIGHTED FREQUENCY
1	10	21	10
2	13	27	26
3	13	27	39
4	6	13	24
5	6	12	30
TOTAL	48	100	96
		ADJUSTED	98
		MEAN	1.94

Table A3.10

Q4(VI) To obtain formal training in accounting, finance, law, management, etc

RANK	FREQUENCY	%	WEIGHTED FREQUENCY
1	23	47	23
2	13	27	26
3	4	8	12
4	7	14	28
5	2	4	10
TOTAL	49		99
		ADJUSTED	99
		MEAN	2.02

Table A3.11

Q4(VII) To obtain formal training in industrial engineering subjects

RANK	FREQUENCY	%	WEIGHTED FREQUENCY
1	8	16	8
2	7	14	14
3	22	45	66
4	8	17	32
5	4	8	20
TOTAL	49	100	140
		ADJUSTED	140
		MEAN	2.86

Table A3.12

Q4(VIII) To bridge gap in original technical training

RANK	FREQUENCY	%	WEIGHTED FREQUENCY
1	12	25	12
2	14	29	28
3	9	19	27
4	8	17	32
5	5	10	25
TOTAL	48	100	124
		ADJUSTED	127
		MEAN	2.59

Table A3.13

Q4(IX) Personel knowledge bid i.e. academic & professional interest

RANK	FREQUENCY	%	WEIGHTED FREQUENCY
1	12	25	12
2	20	41	40
3	10	20	30
4	4	8	16
5	3	6	15
TOTAL	49	100	113
		ADJUSTED	113
		MEAN	2.31

Table A3.14

Q4(X) A Master's degree qualification

RANK	FREQUENCY	%	WEIGHTED FREQUENCY
1	13	27	13
2	20	41	40
3	6	12	18
4	4	8	16
5	6	12	30
TOTAL	49	100	117
		ADJUSTED	117
		MEAN	2.39

Table A3.15

Q4(XI) Short Duration of the Course

RANK	FREQUENCY	%	WEIGHTED FREQUENCY
1	13	27	13
2	20	41	40
3	8	16	24
4	6	12	24
5	2	4	10
TOTAL	49	100	111
		ADJUSTED	111
		MEAN	2.27

Table A3.16

Q4(XII) Part-time nature of the course

RANK	FREQUENCY	%	WEIGHTED FREQUENCY
1	28	57	28
2	14	29	28
3	1	2	3
4	5	10	20
5	1	2	5
TOTAL	49	100	84
		ADJUSTED	84
		MEAN	1.71

Table A3.17

Q4(XIII) To facilitate change of job sphere

RANK	FREQUENCY	%	WEIGHTED FREQUENCY
1	8	17	8
2	8	17	16
3	14	29	42
4	9	18	36
5	9	19	45
TOTAL	48	100	147
		ADJUSTED	150
		MEAN	3.00

Table A3.18

Q4(XIV) Because of the status, prestige and recognition of the IAP

RANK	FREQUENCY	%	WEIGHTED FREQUENCY
1	1	2	1
2	3	6	6
3	19	40	57
4	10	20	40
5	15	32	75
TOTAL	48	100	179
		ADJUSTED	183
		MEAN	3.73

Table A3.19

Q4(XV) For personal status, prestige and recognition

RANK	FREQUENCY	%	WEIGHTED FREQUENCY
1	5	10	5
2	19	39	38
3	11	22	33
4	8	16	32
5	6	13	30
TOTAL	48	100	138
		ADJUSTED	138
		MEAN	2.82

Table A3.20

Q4(XVI) Easier qualification to obtain than other qualifications

RANK	FREQUENCY	%	WEIGHTED FREQUENCY
1	1	2	1
2	10	21	20
3	14	29	42
4	12	25	48
5	11	23	55
TOTAL	48	100	166
		ADJUSTED	169
		MEAN	3.49

Table A3.21

Q4(XVII) Other motivations (specify)

MOTIVATION	FREQUENCY MENTIONED	RANK(S) GIVEN
Convenient/West Cape	3	3
Support of Firm	1	2
Stimulation/Challenge	2	1 and 3
Experienced delegates	1	2
To show firm keen	1	1
Wide range of subjects	1	1
Meet other people	1	-
Practical nature of IAP	1	1
Broaden Education	1	2

Table A3.22

Q5 Academic content of IAP as a motivator

RANK	FREQUENCY	%	WEIGHTED FREQUENCY
1	10	21	10
2	23	48	46
3	10	21	30
4	4	8	16
5	1	2	5
TOTAL	48	100	107
		ADJUSTED	109
		MEAN	2.23

Table A3.23

Q6 Delegate's Rating of academic standard of IAP (post course)

RATING	YEAR					TOTAL	%	WEIGHT FRQ.
	1976	1977	1978	1979	1980			
HIGH	1	1	2	1	1	6	13	13
MODERATE	3	3	6	2	3	17	35	34
AVERAGE	0	4	1	4	8	17	35	51
MEDIOCRE	1	0	0	2	5	8	17	32
POOR	0	0	0	0	0	0	0	0
TOTAL	5	8	9	9	17	48	100	130
						ADJUSTED		133
						MEAN		2.71

Table A3.24

Q6(III) Rating of generalized overall capability of fellow delegates

RATING	FREQUENCY	%	WEIGHTED FREQUENCY
VERY IMPRESSIVE	3	6	3
MODERATELY IMPRESSIVE	18	38	36
AVERAGE	15	31	45
SLIGHTLY UNIM-PRESSIVE	12	23	48
UNIMPRESSIVE	1	2	5
TOTAL	48	100	137
		ADJUSTED	140
		MEAN	2.86

Table A3.25

Q6(IV) Rating of how course extended delegate with respect to amount of time needed to successfully complete the course

RATING	FREQUENCY	%	WEIGHTED FREQUENCY
FOR TOO MUCH	2	4	2
TOO MUCH	5	10	10
ABOUT CORRECT	31	63	93
TOO LITTLE	9	19	36
FOR TOO LITTLE	2	4	10
TOTAL	49	100	151
		ADJUSTED	151
		MEAN	3,08

Table A3.26

Q6 (V) Rating of the contribution by the University to the Course

RATING	FREQUENCY	%	WEIGHTED FREQUENCY
VERY SATISFACTORY	7	14	7
SATISFACTORY	16	33	32
ADEQUATE	15	31	45
UNSATISFACTORY	11	22	44
HIGHLY UNSATISFACTORY	0	0	0
TOTAL	49	100	128
		ADJUSTED	128
		MEAN	2.61

Table A3.27

Q8 (III)(b) How do you describe the IAP to outside parties?

DESCRIPTION	FREQUENCY	PERCENT
SORT OF AN MBA*	23	40
AMPLIFICATION OF "INDUSTRIAL ADMINISTRATION PROGRAMME"	8	14
INDUSTRIAL MANAGEMENT COURSE	6	11
INDUSTRIAL ADMINISTRATION COURSE THAT IS ENGINEERING ORIENTATED	5	9
POST GRADUATE COURSE IN INDUSTRIAL ADMINISTRATION	4	7
GENERAL EXPLANATION	3	5
M. IND. ADMIN.	2	4
MIA	2	4
MASTERS IN ENGINEERING MANAGEMENT	2	4
IAP	1	1
COMMERCIAL SUBJECTS FOR ENGINEERS	1	1
TOTAL	57	100

* This embraced descriptions such as "Technical MBA", "Engineers MBA", "MBA Type engineering course", etc.

Table A3.28

Mid 1981 Basic Annual Salaries of Respondents

(Rands per Annum)

YEAR	NUMBER	MEAN	STANDARD DEVIATION
1976	3	28 666	3 200
1977	8	28 250	8 088
1978	9	19 100	3 413
1979	6	22 666	5 280
1980	15	19 533	2 809
TOTAL	44	23 697	3 607

Table A3.29

Sphere of Current Occupation

SPHERE	NUMBER	PERCENTAGE
MANUFACTURING	19	39
CONSULTING & CONTRACTING	14	29
PUBLIC SECTOR	11	22
ACADEMIC	2	4
COMMERCE	3	6
TOTAL	49	100

Table A3.30

Data obtained from "Peromney's Survey of Remurations"
in April of each of the years 1976-1981

YEAR	Consulting Engineer		Regional Engineer		Site Engineer		Project Engineer		Ave % INCREASE
	RANDS	% OVER PREV YEAR	RANDS	% OVER PREV YEAR	RANDS	% OVER PREV YEAR	RANDS	% OVER PREV YEAR	
1976	1115	-	1080	-	940	-	621	-	-
1977	1183	6,1	1212	12,2	986	4,9	722	16,3	9,3
1978	1281	8,3	1343	11,1	1086	10,1	773	7,0	9,3
1979	1388	8,3	1511	10,8	1210	11,4	889	15,0	11,4
1980	1534	10,5	1666	10,3	1346	11,2	939	5,6	9,7
1981	1728	12,6	2011	20,7	1582	17,5	1283	33,4	19,9

Note

(i) Salary refers to the basic mean monthly salary of each group as extracted from a national sample of the relevant occupation group.

(ii) Average % increase refers to the aggregate of the 4 categories monthly remuneration in each year.

APPENDIX 4

UNIVERSITY OF CAPE TOWN

(WITH WHICH IS INCORPORATED THE SOUTH AFRICAN COLLEGE)

TELEPHONE 69-8631
AFTER HOURS 69-8535

DEPARTMENT OF MECHANICAL ENGINEERING.
UNIVERSITY PRIVATE BAG.
RONDEBOSCH
7700

RKD/RL

1st April 1981

The Dean
Faculty of Commerce
University of Port Elizabeth
P O Box 1600
PORT ELIZABETH
6000

Dear Sir,

We enclose a letter to you from one of our post graduate students, which is self explanatory, but this covering note will reassure you of its serious intent. If you can helpfully respond to Mr Asher we would be very grateful.

Yours faithfully

Signed by candidate

Signature Removed

PROFESSOR R K DUTKIEWICZ
Head of Department

Enc:

APPENDIX 4

industrial administration programme

UNIVERSITY OF CAPE TOWN
Department of Mechanical Engineering
Private Bag
RONDEBOSCH
7700
Telephone 69-8531

CMA/RL

1st April 1981

The Dean
Faculty of Commerce
University of Port Elizabeth
P O Box 1600
PORT ELIZABETH
6000

Dear Sir

As part of the requirements for the M. Ind. Admin. degree at UCT, I am planning to complete a thesis which evaluates, amongst other things, the various comparable post graduate courses available in South Africa.

It would be of great assistance to me if I could get a short questionnaire completed by the appropriate members of your staff - it is envisaged that they would normally be located in the Graduate School of Business/Industrial Administration/Industrial Engineering Departments. To help clarify the type of information needed an abbreviated sample of the topics to be covered in the questionnaire is attached.

The purpose of this letter is to request your assistance in providing me with the name(s) of any person in the relevant Departments who will be prepared to assist me, and to whom I may send the questionnaire for completion. Your guidance and help in designating the most appropriate person(s) will be most appreciated. Yours faithfully

Signed by candidate

Signature Removed

CASHER
Industrial Administration Programme

Enc:

SOME TOPICS TO BE COVERED IN THE QUESTIONNAIRE

1. Academic aims and objectives of course

2. Typical profile of past students (background, qualifications, etc.)

3. Selection procedures

4. Statistical data (number of applicants, number accepted, failures, etc.)

5. Course structure (examinations, thesis requirements, projects etc.)

6. Special features of course (visiting lecturers, group study methods)

7. Advertising methods employed

Aspects of these topics will be covered in a short questionnaire.

APPENDIX 4

industrial administration programme

UNIVERSITY OF CAPE TOWN
Department of Mechanical Engineering
Private Bag
RONDEBOSCH
7700
Telephone 69-8531

CMA/RL

18th May 1981

Dear

As you are most probably aware the University of Cape Town recently introduced a Master's Degree course in Industrial Administration. As part of the requirements for this degree I am gathering data for a thesis which will involve the formulation of a marketing and promotion strategy for this degree.

An essential part of this thesis will involve a survey of past students' motivations, expectations and experiences regarding the Industrial Administration course. For your general information a list of the type of information, which we are requesting in a questionnaire to past Industrial Administration delegates, it attached.

Another important part of my thesis involves a comparative study of the various competitive course options available to a prospective student, and it is in this area that your assistance would be greatly appreciated. The type of data that would aid me in progressing the study are contained in the attached Questionnaire marked "Course Comparison" and your help in completing and returning this form is requested. In addition if you believe that the questionnaire is incomplete or not appropriate then your comments and alterations/additions to the questionnaire would be most welcome.

As a supplement to this questionnaire it would also be appreciated if you could forward any non confidential data and publications which would be relevant. The type of information envisaged might include

- promotional literature and brochure
- application forms and admission procedures
- academic time tables, course structure and examination procadures
- course rules and regulations
- profiles of past and present student groups
- failure rates.

Similar requests are being forwarded to other educational institutions and your co-operation in enabling me to do a comprehensive and composite comparison will be of value. Unless otherwise indicated by the respondents to the questionnaire it is not intended to restrict access to the thesis and it is therefore hoped that the information provided will ultimately be of interest to all respondents.

Yours sincerely

C M ASHER
Industrial Administration Programme

Encs

APPENDIX 5

QUESTIONNAIRE

(Course comparison)

It would be appreciated if you would complete the following questionnaire. If in addition you are able to provide me with any relevant literature regarding either the specific points raised or general brochures on the courses, it will be most gratefully received. Should you wish any of the answers to remain confidential, please write CONFIDENTIAL next to the appropriate question number or sub-number.

1. What post-graduate degrees or diplomas do you offer in the general field of administration or management, e.g. MBA, M.SC, B. Comm (Hons), MBL, etc.

.....
.....
.....

2. Course structure

Please indicate (for each course if appropriate)

(i) Total length of course (years)? .....

(ii) Total number of direct teaching hours during this period (hours)? .....
.....

(iii) Total number of seminar/group discussion hours during total period (approximate hours)?
.....

(iv) Full time or part-time?

.....

(v) If course is predominantly part-time but has a compulsory full time block, please indicate length of block (weeks)?

.....

(vi) Average class size .....

(vii) Is group study compulsory for this course? .....

3. Entrance procedure

Please indicate

(i) Academic entrance qualification required

.....

.....

(ii) Application Procedure followed, e.g. Application Form followed by interview and confirmed by Departmental Examination

.....

.....

.....

(iii) Average number of students applying per year

.....

Average number of students making formal application per year

.....

(iv) Special characteristics sought by the Admission Committee from candidates

.....

.....

(v) Total cost of course for delegates (1981 Rands)

.....

4. Typical student profile

Please indicate if possible

(i) Geographical area from which students are drawn

.....

.....

(ii) Overall pass rate (%)

.....

.....

(iii) Average age (years)

.....

.....

(iv) Typical qualifications

.....

.....

(v) Type of management level achieved pre-course

.....

.....

(vi) Average salary (Rands)

.....

.....

(vii) Primary motivation for doing course

.....

.....

.....

(viiii) Other typical characteristics of student

.....

.....

.....

5. General

Please indicate :

(i) Whether the particular course(s) has a separate Alumini Club

.....

(ii) Whether a placement service is in operation to help delegates obtain employment post course, and a brief description of this facility

.....

.....

.....

(iii) Whether the delegates are required to write a thesis or Technical Report and/or examinations in various subjects. Please also indicate weighting of thesis viz a viz examinations in the final assessment of the student.

.....

.....

.....

(iv) Whether there is direct involvement with Industry/Commerce for course projects/research

.....

.....

.....

(v) Whether overseas visiting lecturers regularly contribute to course. Please also include the number who have lectured over the past three years, average length of stay in South Africa and field of study.

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.....

(vi) Whether lecturers are predominantly drawn from the University or Industry/Business (or both)

.....
.....

(vii) Whether extensive advertising is conducted to inform prospective delegates about the course(s). Please also indicate average advertising expenditure per course.

.....
.....
.....

(viii) Please describe your advertising policy and the primary media employed in this advertising.

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6. Please briefly describe the overall goals and objectives of the course, and any unique features that the particular course may offer.

.....

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.....

I thank you for your co-operation. Please post this form to :

The Secretary
Industrial Administration Programme
Department of Mechanical Engineering
University of Cape Town
Private Bag
RONDEBOSCH 7700

APPENDIX 6

Argus - 10.10.81

MASTER'S DEGREE
IN
INDUSTRIAL ADMINISTRATION
(PART-TIME)

Applications are invited to join the 1982 Industrial Administration Programme. Closing date November 15th 1981. Programme begins February 8th 1982.

The Faculty of Engineering realises that management in an Industrial environment presents unique challenges to the technically qualified person.

The MIA programme is specifically designed to provide techniques that assist the development of those managerial skills which are not normally part of an engineering/scientific curricula. Exposure to concepts in commercial and business subjects as well as the growing body of knowledge of industrial engineering and management will enhance your career prospects.

The intensive part-time lecture courses are completed in the first year at the end of which the Graduate Diploma in Industrial Administration is awarded to successful candidates who may then proceed with a project thesis to be awarded the M Ind Admin degree.

Non-degreed candidates may also participate in the 1st Year lecture programme to be awarded the Diploma in Industrial Administration.

Further details and brochure are available by phoning 69-8531 ext 383 or by posting the printed coupon.

To: Director, Industrial Administration Programme,
Faculty of Engineering,
University of Cape Town,
Private Bag Rondebosch 7700.

Please send me a free detailed brochure on the 1982 Programme.

Name: .....

Address: .....

.....

APPENDIX 7

UNIVERSITY OF CAPE TOWN

industrial administration programme

a part-time study programme of
INDUSTRIAL ENGINEERING, MANAGEMENT, ACCOUNTING & LAW
for the rising middle manager in industry.
It leads to a Diploma and Master's degree
(Dip. Ind. Admin., Grad. Dip. Ind. Admin., M. Ind. Admin.)
APPLICATIONS for the 1981 PROGRAMME are now being considered.
Formal teaching begins in February but there is a schedule of pre-course reading that should be started in November 1980, thus EARLY APPLICATION IS ESSENTIAL.

FOR DETAILS WRITE TO:
Professor R. K. Dutkiewicz
Industrial Administration Programme
Department of Mechanical Engineering
University of Cape Town, Private Bag, Rondebosch, 7700
or telephone 69-8531 x 383

Note: the normal structur is 2 weeks full time attendance in February, 3 weeks full time in July, Tuesday and Thursday evenings and most Saturday mornings between February and June. There now appears to be demand for a complete full time structure as follows: 3 weeks February, 3 weeks April, 4 weeks July. Please indicate your preference so that we can consider this.

ENGINEERING WEEK

1.08.82

APPENDIX 7

UNIVERSITY OF CAPE TOWN

Industrial administration programme

a part-time study programme of
INDUSTRIAL ENGINEERING, MANAGEMENT, ACCOUNTING & LAW
for the rising middle manager in industry.
It leads to a Diploma and Master's degree
(Dip. Ind. Admin., Grad. Dip. Ind. Admin., M. Ind. Admin.)
APPLICATIONS for the 1981 PROGRAMME are now being considered.
Formal teaching begins in February but there is a schedule of pre-course reading that should be started in November 1980, thus EARLY APPLICATION IS ESSENTIAL.

FOR DETAILS WRITE DIRECT TO:
Professor R. K. Dutkiewicz
Industrial Administration Programme,
Department of Mechanical Engineering,
University of Cape Town, Private Bag, Rondebosch, 7700
or telephone 69-8531 x 383

Note: the normal structure is 2 weeks full time attendance in February, 3 weeks full time in July, Tuesday and Thursday evenings and most Saturday mornings between February and June.
There now appears to be demand for a complete full time structure as follows: 3 weeks February, 3 weeks April, 4 weeks July. Please indicate your preference & - that we can consider this.

ARGUS
July, 1980

FACTORY MANAGERS

KNOW THE VALUE OF FURTHER EDUCATION

THE PROBLEM IS...

Can they afford the time and the cost?
Is the end result worth the effort?

For 1981, the **UNIVERSITY OF CAPE TOWN** will offer their sixth successive and successful solution to this problem.

An intensive **PART-TIME PROGRAMME** of lectures on Business Management, Accounting and Industrial Engineering between February and August 1981 and leading to the degree of **MASTER IN INDUSTRIAL ADMINISTRATION** (M Ind. Admin.).

The time: Two weeks full time in February. Three weeks full time in July. Tuesday and Thursday evenings and Saturday mornings between times.

The price: R950 includes text books, notes, binders and lunches during the full time periods.

The effort: Considerable

The result: Self-confidence and status

Write for details to Post-Graduate Courses Administrator

Industrial Administration Programme
Department of Mechanical Engineering
University of Cape Town
Private Bag
Rondebosch 7700

DO IT NOW!

CAPE TIMES
October, 1980

APPENDIX 8

Raad vir Geesteswetenskaplike Navorsing
Human Sciences Research Council

Privaatsak X41
0001 Pretoria
Republiek van Suid-Afrika
Telegramme RAGEN
Teleks 3-0893

Private Bag X41
0001 Pretoria
Republic of South Africa
Telegrams RAGEN
Telex 3-0893

Suid-Afrikaanse Instituut vir
Mannekragnavorsing
(SAIMAN)

South African Institute for
Manpower Research
(SAIMAR)

RGN HSRC

Navrae
Enquiries Miss S. van der Walt

Telefoon (012)28-3944 Bylyn
Telephone (012)28-3944 Extension 258

Verwysing
Reference N/2/2/6

U verwysing
Your reference

Mr C.M. Asher
1 Conway Court
Victoria Road
BANTRY BAY
8991

Dear Mr Asher

INFORMATION ON ENGINEERS AND SCIENTISTS: YOUR LETTER OF 1981-03-13

Your letter was referred to the South African Institute for Manpower Research (SAIMAR). SAIMAR undertakes research on inter alia the manpower aspects of economic and social development in the RSA, estimates future shortages and surpluses in the labour market, while research on the remuneration of high-level manpower is also being done on a continuous basis.

The HSRC reports "The demand for and supply of manpower, part I: Estimate of the demand for manpower by occupation and education level for the four population groups". (Report No. MM-70) and "Die vraag na en aanbod van mannekrag in die RSA in 1981, deel II: Raming van die grootte van die ekonomies-bedrywige bevolking in die RSA, volgens ouderdom, geslag en volksgroep, en 'n vergelyking tussen die vraag na en aanbod van die arbeidsmag op 'n onderwyspeilgrondslag in 1981", (Report No. MM-73 - available in Afrikaans only), both by J.A. Vermaak, J.J. Jacobs and S.S. Terblanche (1977 and 1978) contain information on the manpower situation in general.

Estimates by SAIMAR of the demand for manpower in 1987 according to occupational group, economic sector and population group are included in the "Economic Development Programme for the RSA, 1978-1987, Volume II" which is published by the branch Economic Planning of the Office of the Prime Minister (1980).

Information on the number of natural scientists and professionally qualified engineers employed, as well as estimates of the number of personnel vacancies can also be obtained from the Manpower Surveys No. 6-13, which have been conducted on a sample basis by the Department of Manpower Utilization. These give comparable information on the manpower situation according to occupation for the RSA and SWA, from 1965, on a two-yearly basis. SAIMAR uses information from these surveys to estimate the future demand for manpower.

Two reports by S.S. Terblanche (1971 and 1973) "The demand for and supply of engineers in 1973 and 1980" (Report No. MM-17) and "The demand for and supply of natural scientists in the RSA in 1980" (Report No. MM-43) analyse the situation for engineers and natural scientists. SAIMAR is presently working on a new study on the demand for and supply of engineers in 1987, which will be published in due course.

Since 1971 SAIMAR has undertaken salary surveys for graduates every two years. The latest information available, regarding the remuneration of engineers and/or scientists, was published in the following two reports:

The wage structure of graduate engineers in 1979 - M-R-68.
The wage structure of graduate White men in 1979 - M-R-66.

These two reports as well as those of previous years, are available in university and provincial libraries. The reports for 1981 will become available in December 1981.

Enclosed is a list of publications of SAIMAR. We hope that this information will be useful.

Yours sincerely

ACTING DIRECTOR
SOUTH AFRICAN INSTITUTE FOR MANPOWER RESEARCH

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14 DEC 1982