

Industrial marketing research — theory and practice

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Industrial marketing research is generally speaking a low priority item for industrial companies in South Africa. However, marketing research should form the basis of most marketing planning. Marketing research budgets in industrial companies are usually small because management feels that most projects are either too expensive or too time consuming. The objective of this article is to show that industrial marketing research need not be expensive or time consuming. Industrial marketing research has failed to receive much attention in standard marketing books and journals, in spite of the fact that the size of the industrial market is larger than the consumer market in South Africa. The author discusses a simple method which can be followed by people in industrial companies with little or no marketing background. The scope of industrial marketing research and the planning of an industrial research project are discussed; besides a report on a field study undertaken among 20 industrial plastics manufacturers on the Witwatersrand to establish the 'state of the art' as far as their marketing research was concerned.

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Industriële bemarkingsnavorsing is gewoonlik 'n saak van lae prioriteit vir industriële maatskappye in Suid-Afrika. Bemarkingsnavorsing behoort egter die basis van bemarkingsbeplanning te vorm. Begrotings vir bemarkingsnavorsing in nywerheidsmaatskappye is gewoonlik klein omdat bestuur meen dat die meeste projekte óf te duur, óf te tydrowend is. Die doel van hierdie artikel is om aan te dui dat industriële bemarkingsnavorsing nie duur of tydrowend hoef te wees nie. Industriële bemarkingsnavorsing het tot dusver nie veel aandag in standaard bemarkingsboeke en -tydskrifte ontvang nie, ten spyte van die feit dat die grootte van die industriële mark in Suid-Afrika groter as die verbruikersmark is. Die outeur bespreek 'n eenvoudige metode wat deur mense met min of geen bemarkingsagtergrond gebruik kan word. Die terrein van industriële bemarkingsnavorsing word bespreek, asook die beplanning van 'n industriële navorsingsprojek. 'n Verslag volg oor 'n veldstudie, wat oor 20 vervaardigers van industriële plastiek op die Witwatersrand gedoen is, om vas te stel wat hulle kundigheid, benadering en gebruike wat betref bemarkingsnavorsing is.

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Introduction

Industrial marketing research is the systematic gathering, recording and analysing of data about industrial marketing problems to facilitate decision-making. There is no doubt that marketing research is a vital component in marketing strategy, providing a foundation for the planning and execution of marketing programmes. However, marketing research budgets for industrial companies are relatively small. According to Dekker, an average 0,40% of the turnover of the manufacturers of industrial, mining and construction machinery in South Africa was spent on marketing research.¹ This compares with the situation in the United States of America, where industrial companies with a turnover of less than \$5 million spent 0,5% of turnover on marketing research.^{2, p.20} Industrial companies in South Africa are, generally speaking, production-oriented and their marketing is relegated down the line.

Industrial marketing research has failed to receive much attention in standard marketing books and journals, in spite of the fact that the size of the industrial market is larger than the consumer market in South Africa. Rädcl stated that the industrial market was 58% of the total South African market in monetary terms.³ There are a number of differences between industrial marketing research and consumer marketing research. For a clear understanding of industrial marketing research, a discussion of the factors that distinguish industrial from consumer marketing research is necessary.

The number of customers for a particular industrial product is relatively small. An industrial product is purchased by a company for use in its production process or for resale. Demand is also concentrated. Industrial market demand in South Africa tends to concentrate geographically. Most of the Republic's industrial concerns are situated in the Pretoria-Witwatersrand-Vereeniging area, Durban-Pinetown, Port Elizabeth-Uitenhage and the Western Cape. This demand-concentration influences data sources and research procedures. Industrial market demand is a derived demand. This makes industrial demand more difficult to assess because economic conditions, raw materials prices and stock levels will have to be taken into account. Also, the exact influence of each of these factors on the particular product and the timing of such influences are difficult to establish. Industrial market demand also results from group buying decisions.

Thus the role of the 'buyer' is very important because there is more than one person involved in the buying process.

As previously stated, the marketing research budgets of industrial companies are generally speaking very small. This means that marketing research practitioners are seldom used by industrial companies. Even within a company, it is difficult to undertake proper marketing research because executives don't have the time, money and sometimes the skill, to do a good job.

Industrial firms that want to do more than in the past by way of marketing research have two alternatives:

- make more money available for original or formal marketing research;
- make use of available funds by obtaining executive judgements and secondary data, and by doing exploratory studies.

The first alternative is the most difficult to achieve. Until the marketing concept is accepted by industrial firms, this alternative is not likely to succeed in the short term. The people who are responsible for the marketing function in industrial companies should therefore make use of the second alternative. Obtaining secondary data and executive judgements, as well as performing exploratory studies could be highly effective, while the cost in terms of time and money is relatively low if compared with formal studies aimed at collecting new (primary) data that are specific to the problem at hand.

Scope of industrial marketing research

Industrial marketing research has a broad scope. Studies can, generally speaking, be divided into four major categories:

- **Market Measurement Studies:** These are aimed towards obtaining quantitative data on potential demand. Market measurement data are particularly helpful in planning overall marketing strategy. Analysis of market measurement data provides insight as to whether a potential market exists, and if it does, its size.
- **Studies of the Controllable Factors:** Controllable factors are studies of the so called '4 p's', namely, product, price, place and promotion. Management can use studies of controllables to appraise the effectiveness of its product, distribution, promotion, and pricing policies and practices and plan future policies and practices.
- **Studies of the Competitive Situation:** These are intelligence-type studies, studies specifically designed to delve into competitors' marketing practices and policies. Management needs this information to understand how competitors' actions affect their company's market situation.
- **Studies of Uncontrollable Factors:** This is information regarding general economic and business trends as well as the socio-political environment. This information can be found in business pages of newspapers and journals like *Marketing Mix* and *The Financial Mail*.

According to the American Marketing Association,^{2,p.28} 90% of industrial firms in the United States stated the undermentioned as the principal responsibilities of their industrial marketing research departments:

- development of market potentials;
- market-share analysis;
- determination of market characteristics;
- sales analysis;
- short-term forecasting;
- long-term forecasting;
- studies of business trends;
- new product acceptance and potential;
- competitive product studies;
- determination of sales quotas and territories.

It can thus be said that industrial marketing research has a large scope and, when used correctly, can help management make better decisions.

Planning for industrial marketing research

Planning an industrial marketing research project involves making decisions on (1) objectives, (2) specific information needed to achieve these objectives, (3) sources to tap in seeking the information, (4) research designs to employ, (5) sampling procedures, and (6) methods of data analysis.

Research objectives

The industrial company should have identified the marketing problem in order to set the research objectives. There should not, generally speaking, be more than one main objective. If there is more than one objective, this could result in too many facts being sought. This could retard the timely gathering of reliable information. When the industrial marketer looks for objectives, he should consider at least two questions about each tentative objective:

- of what value will the information be to the decision-maker?
- if the information is of possible value, is it valuable enough to justify the cost of obtaining it?

Deciding on information needed

The industrial marketer must determine the specific information needed to achieve the research objectives. The researcher must consider the different types of information that seem pertinent to achieving the objectives and ascertain whether each bit of specific information finally decided upon is relevant to achieving them.

Deciding on information sources

Many industrial market researchers spend a significant portion of their working days on informal projects that arise from requests by the general manager or the sales manager. One must remember that research budgets are relatively small, and demand-concentration high in South Africa. This makes exploratory research very rewarding because relatively little time and effort is spent on collecting data. The industrial researcher can use two basic methods in exploratory research:

- a survey of knowledgeable persons
- a review of secondary data.

A survey of knowledgeable persons

One of the most important differences between industrial and consumer marketing research is found in the relative importance of surveys of knowledgeable persons. Surveys of knowledgeable persons are especially attrac-

tive when the time or cost factors make representative sampling impracticable, when respondents lack the requisite information, or when precise estimates are not needed.

South African industrial marketing researchers should devote time and effort to identifying the 'experts'. Such people may be found in:

- customer and prospective customer firms
- industry consultants
- trade journal editors
- government officials
- university specialists
- own company personnel.

These people can quickly provide the firm with very valuable information, at a relatively low cost.

Review of secondary data

Secondary data refers to information available at the outset of the project, that is, when the problem area has been identified. Such data may be either internal or external to the company and may exist in published or unpublished form. In both formal and informal research projects, activity should begin with an analysis of relevant secondary data.

Internal secondary data can be obtained from the company's invoices, delivery notes, customer records, budgets and marketing plans. Making this information available promptly will mean that marketing must work together with other departments such as accounting, warehousing and production. This information is necessary for performance analysis. Internal secondary data is particularly useful for sales analysis, market-share analysis, distribution analysis, sales-force performance analysis and cost-profit analysis.

Sources of secondary data. Many problems faced by industrial marketers can be illuminated by external secondary data. It is necessary to know where such information can be found:

- Libraries: University libraries as well as some public libraries have a wealth of marketing literature. Some useful academic and professional journals include:
 - Industrial Marketing Management
 - Harvard Business Review
 - Journal of Marketing
 - Journal of Marketing Research
 - Fortune
 - Marketing Mix
- The Department of Statistics, Pretoria.
- Trade journals and trade associations often aid their particular industry.
- The Bureau for Market Research at the University of South Africa.
- The Bureau for Financial Analysis at Pretoria University.
- The Bureau of Economic Research at Stellenbosch University.

Of particular interest to the industrial marketer in South Africa are the following:

- The South African Market — Research Report No. 81, 1980 of the Bureau for Market Research at UNISA.
- The Standard Industrial Classification System (SIC). This covers all economic activities that make up the

industrial market. The major divisions are:

- Agriculture, Hunting, Forestry and Fishing,
- Mining and Quarrying
- Manufacturing
- Electricity, Gas and Water
- Construction
- Wholesale and Retail Trade and Catering Services
- Transport, Storage and Communication
- Finance, Insurance, Real Estate and Business Services
- Community, Social and Personal Services

- A valuable source of secondary information in South Africa is the BM Industrial Directory. This guide contains the names of approximately 14 500 companies classified on the SIC basis. This guide can aid the industrial market researcher in many ways, for example identification of possible customers, the calculation of market potential, the selection of media, sampling, sales forecasting and location of new branches. This directory is available from UNISA.

Primary data

Primary data refers to data not available at the time of the problem definition, and thus primary data are always collected specifically for the problem at hand. The collection of primary data is dictated by the need to supplement secondary data in order to understand the purchasing behaviour of target customers.

The most important collection method in industrial marketing research is the survey method. This is the process of asking questions of people believed to possess the required information. Observation methods are rare in industrial marketing because the conditions that make their chief forms, panels and audits, popular in consumer research, do not exist in industrial markets.

There are generally speaking, three types of surveys: personal, telephone, and mail.

- Personal interview surveys are the most costly, but they also tend to be the most valuable and accurate. According to Luck and others⁵, there are a number of advantages in conducting a survey by using personal interviews:

The relatively short period of time allowed.

The variety of information that can be obtained.

The relatively large amount of information that can be collected for each type of information provided.

The degree to which results can be projected to the relevant universe.

The two main disadvantages of personal interviews are:

The relatively high cost per completed interview.

The relative difficulty of administering a survey using personal interviews.

These two disadvantages can be overcome in industrial marketing research. One must remember that the number of customers is small and demand is concentrated. Usually the industrial sales representative acts as an advisor to his target customers. Obtaining orders is only one of his functions. Industrial sales representatives are usually highly educated when compared with personnel in other selling jobs.

Thus, marketing research could become one of the tasks of the industrial sales representative. This means that the cost of research will be reduced because the sales representative already has to make regular calls on the target customers. Some American writers⁶ agree that the sales representative can become a useful source of information provided he/she is correctly trained for the task.

- Telephone interviews can be used by the industrial marketing researcher. These interviews have a number of advantages:

The cost is relatively low.

The interview takes a relatively short period of time.

Different types of information can be obtained.

The major disadvantage of telephone interviews is that they are relatively short, and this fact reduces the richness of information that can be obtained by this method.

- Mail surveys are relatively easy to prepare. A questionnaire is prepared, addressed according to an appropriate mailing list, the questionnaire is mailed, and the results are tabulated when the completed questionnaires are returned. The major disadvantage is the low return rate. Mail questionnaires are largely confined to large universes and to markets with relatively unconcentrated demand.

Research designs to employ

The researcher often wants to do more than record what is happening in the market. The researcher wants to learn what will happen if new conditions are introduced, for example a new product. Under these circumstances the researcher must select the research design that will best provide the answers. There are generally speaking three possible research designs.

The experimental method

This involves carrying out of a small scale trial solution to a problem while simultaneously attempting to control all other factors except the one being studied.

Test marketing

The proposed new strategy is tested under real marketing conditions in one or more selected markets. This design works well in industrial marketing, especially when markets are not concentrated.

Simulation

A simulated market environment is set up in the factory under the assumption that with a carefully-designed simulation, the actions of buyers will predict what will happen in real market conditions.

Sampling

It has been said that some of the greatest differences between consumer and industrial marketing research concern sampling procedures. A sample is a portion of the universe from which it is drawn. Therefore the actions of the sample should represent the actions of the whole group.

The principal factor differentiating industrial marketing research from consumer marketing research is

the higher degree of demand-concentration for industrial goods. The higher level of industry demand-concentration also means that a few firms account for a large proportion of the total market demand. Developing a sampling framework is comparatively easier for industrial markets than for consumer markets. The BM Industrial Directory for example, provides reasonable lists of sampling units. Demand-concentration spells a degree of information concentration that makes judgement sampling in particular, and non-probability sampling in general, more desirable than in consumer studies.

Despite these advantages the researcher must use considerable care in defining the universe to be studied. Product, geographic and time period boundaries must be identified. The sampling method must be chosen.⁷ The three types of non-probability sampling are judgement, convenience, and quota sampling. Exploratory research is almost always conducted with non-probability samples. There are also probability samples which can be used. This does not always bring more accuracy into the research. Even a 95% numerical representation of the universe in a sample is not necessarily representative of the universe.

Methods of data analysis

The first steps in the analysis of data drawn from marketing research are sample tabulation and cross tabulation. However, there are many statistical ways of arranging data according to the individual researcher's needs. With the availability of computers, industrial marketing research can resort to the use of multivariate statistical techniques.⁸ Multiple regression analysis is the most frequently-used technique. Its uses range from sales forecasting to prediction of customer preference and loyalty. An in-depth discussion of statistical techniques is beyond the scope of this paper.

Making right decisions is of obvious importance in the costly task of information processing. Each data processing method has advantages and disadvantages. Manual methods have these advantages:

- Simple worksheets are needed.
- No technical skills are required.
- No computer language need be used.

The disadvantage of this method is human error.

The advantages of computer methods include:

- Accuracy
- Speed
- Cross tabulation
- Easy administration.

The final choice will depend on the resources of the company and the staff available to produce timely information for decision-makers.

The field study

A pilot study was undertaken in October/November 1981 among 20 industrial plastics manufacturers on the Witwatersrand to establish the 'state of the art' as far as their marketing research was concerned. A random sample of 20 companies was selected from the Johannesburg Yellow Pages. This represented about 25% of the plastics manufacturers listed in this issue of the Yellow Pages. The aim of this study was not to identify right and/or wrong, but solely to determine what is being done about

marketing research within these companies. All 20 companies are private companies. The author conducted structured interviews with top management in the 20 firms. The results of the survey are shown in Tables 1 to 8.

Table 1 Responsibility for the marketing task in industrial plastics manufacturers on the Witwatersrand, 1981

	No.	%
Managing director / General manager	6	30
Marketing director / manager		
Sales director / manager	14	70
Production director / manager		
Administrative director / manager		
Total	20	100

Table 1: None of the 20 companies in the sample employed a marketing manager. In 70% of the companies, sales directors or sales managers were responsible for marketing, and in 30% of the companies, managing directors or general managers were responsible for the marketing task. It appeared that most of the top management had some marketing experience.

Table 2 Employment of marketing research officers in industrial plastics manufacturers on the Witwatersrand, 1981

	No.	%
Have marketing research officer / staff	2	10
No marketing research staff employed	18	90
Total	20	100

Table 2: Ninety percent of the firms in the sample did not employ a person whose main function was to perform marketing research tasks. Only two firms (10%) did so.

Table 3 Responsibility for marketing research in industrial plastics manufacturers on the Witwatersrand, 1981

	No.	%
Managing director / General manager	5	25
Marketing director / manager	-	-
Sales director / manager	11	55
Production director / manager	2	10
Administrative director / manager	-	-
Marketing research officers	2	10
Total	20	100

Table 3: More than half of the companies in the sample (55%) made their sales directors or managers responsible

for the marketing research function. Two companies that employed marketing research officers made them responsible for the research, while top management was responsible for marketing research in 25% of the firms. It must be noted that two companies (10%) made the production director/manager responsible for marketing research. This is not generally speaking the accepted approach because production personnel are seldom marketing-oriented.

Table 4 Type of research carried out by industrial plastics manufacturers on the Witwatersrand, 1981

	No.	%
Formal / Primary	3	15
Exploratory / Secondary	17	85
Total	20	100

Table 4: Almost all, that is 85% of the companies in the sample, made use of exploratory research only; while three companies (15%) carried out a formal research project seeking primary information.

Table 5 Use made of knowledgeable persons by industrial plastics manufacturers on the Witwatersrand, 1981

	No.	%
All of the time	5	25
Some of the time	14	70
Never	1	5
Total	20	100

Table 5: Most of the companies in the sample (70%) made some use of knowledgeable persons, while 25% made use of knowledgeable persons all the time. Thus it is obvious that knowledgeable persons play an important role in the search for marketing data.

Table 6 Responsibility for the collection of secondary data in industrial plastics manufacturers on the Witwatersrand, 1981

	No.	%
Managing director / General manager	4	20
Sales director / manager	8	40
Production director / manager	-	-
Administrative director / manager	5	25
Sales representative	-	-
Sales clerks	3	15
Total	20	100

Table 6: Though systems for the collection of secondary data vary between companies, someone in the firms must be responsible for the collection of this data. From

the sample, 40% give the responsibility to the sales director or manager and 25% to the administrative director or manager.

Table 7 Personnel who conducted marketing research for industrial plastics manufacturers on the Witwatersrand, 1981

	No.	%
Managing director / General manager	2	10
Sales director / manager	4	20
Marketing research officers	2	10
Sales representative / engineer	7	35
Outside agencies	1	5
Companies that did not respond to this question	4	20
Total	20	100

Table 7: Seven companies in the sample (35%) used their sales representatives (sometimes called sales engineers) as marketing researchers. They are the main source of marketing information. An outside agency was used by only one company (5%).

Table 8 Types of sampling techniques used by industrial plastics manufacturers on the Witwatersrand, 1981

	No.	%
Non-probability sampling	19	95
Probability sampling	1	5
Total	20	100

Table 8: It is clear that the majority of firms in the sample (95%) use non-probability sampling techniques.

Conclusion

This pilot study has shown that the sales manager is responsible for the marketing and marketing research tasks in the majority of firms in the sample. In addition, 90% of the companies do not employ specialist

marketing research staff, and very few of the firms do any formal marketing research. They appear to rely exclusively on the exploratory type of research. One of the most important sources of information used by the firms is the survey of knowledgeable persons. The sales manager or general manager is usually responsible for collecting secondary data. A number of people actually conduct marketing research, but it appears that the sales representatives and sales managers do most of the field work. In their marketing research, the plastics manufacturers in the survey apparently rely largely on executive judgement and practical experience.

The type of approach discussed above is not very time-consuming or expensive. The firms surveyed obtain useful information which can aid decision-making within a relatively small budget. Clearly more in-depth research is needed in the plastics industry to find out if operational procedures are sound and whether marketing research techniques are applied to full advantage.

This also points to a need for further work on industrial marketing research in other industries in South Africa. However preliminary, the results of this pilot study may serve as pointers in future research; they could also aid the small industrialist in his marketing research efforts.

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