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## MANAGEMENT in MARKETING

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Edited, with Introduction, by SAMUEL B. STOCKING, Jr.

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## PREFACE

THIS VOLUME, presenting the views of nine teachers and practitioners on various facets of marketing management, is published in the hope that it will stimulate thinking along management lines by the men and women who are responsible for the administration of the marketing function in business. It is purposely nonacademic in its approach, and informal-at times even "breezy"in its style. Six of the chapters are based on talks given in the ninth annual Marketing Lecture Serics sponsored jointly by the University of Toronto and the Advertising and Salcs Club of Toronto. Chapters 7 and 8 are based on lectures given in previous years, while chapter 1 was written specifically as an introduction to the other material.

The Marketing Lecture Series is a notable example of mutually profitable co-operation between the business community and the University. These lectures have drawn enthusiastic audiences of steadily increasing size, and have been of incstimable value in the co-ordination of business education at the University with the actual requirements and problems of marketing men. Almost all of the lectures have been published, in book form the first two years, ${ }^{1}$ and since that time in the Commerce Journal, annual publication of the Commerce Club of the University.

Time did not allow the submission of proofs to the various authors. Apologies are due to them on this account, and the editor must accept full responsibility for any errors. Some condensation

[^0]of the material has been necessary, but every effort has been made not to affect the views expressed.

The editor is glad to take this opportunity to express his thanks and those of the University to Mr. Hall Linton, who was one of the small group responsible for the inauguration of the lecture series in 1939, and who has been a tireless member of the steering committee in every one of the nine years. Mr. Linton's efforts, more than those of any other person, have been responsible for the steady growth of co-operation between the Advertising and Sales Club and the University, not only in the sponsorship of lectures, but in many other directions as well, culminating in the recent establishment of the Advertising and Sales Club Graduate Fellowship in Marketing. Thanks are due also to Mr. N. R. Perry, President of the Club, to Mr. R. M. Barbour, chairman of its educational committee, to Mr. L. G. Irvine, chairman of the planning committee for the 1947 Lecture Series, and to all of the members of Mr. Irvine's committee.

Dr. W. J. Dunlop, Director, Department of University Extension, has been responsible for all administrative and financial arrangements in connection with the lecture series, and has made this volume possible by the allocation for the purpose of a portion of the proceeds of the series.

Grateful acknowledgement is made to the American Management Association for permission to use Mr. Crisp's lecture, which was first given before an Association meeting and has been published by the Association, and to the Commerce Journal for permission to reprint the articles by Professor Brown and Professor McNair.
S. B. S.

University of Toronto
May, 1947

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## 1. INTRODUCTION: THE MANAGEMENT POINT OF VIEW

Samuel B. Stocking, Jr.

THE SIGNIFICANCE of the "management point of view" in marketing, and the purpose of this little volume, will perhaps be better understood if a brief examination is first made of some of the characteristics and peculiarities of marketing men, particularly those charged with management responsibilities.
"The lady doth protest too much." A great deal has been written and said about the importance of the marketing function in the twentieth-century North American economy. The men whose livelihood is gained from the various phases of the distribution process have made the most of their many opportunities to picture their profession in a keystone position in the structure of modern civilization. Other people, far fewer in number, have found receptive audiences for suggestions that many of the ills of our times can be traced to the manner in which the marketing function is carried out, suggestions which, by the way, confirm rather than deny the importance of the function.

As a matter of fact, no influential voice has been raised to suggest that distribution is not important, which leads one to wonder why so much breath and printers' ink is expended in reiterating the well-worn arguments as to its significance. It is quite apparent that marketing people feel themselves to be on the defensive, and the thing that they are defending seems usually to be either their own economic, professional, and social status, or the cost of carrying out the distributive function.

It would be a mistake to assume that there is no fire behind this smoke. On the status side, there can be no doubt that recognition of the marketing profession has lagged behind its progress. The public was slow to relinquish the vaudeville concept of the
salesman with the race-track suit, glib tongue, and excessive libido, and still slower to recognize that success in the advertising business requires something more than a gift for epigrams and a cavalier attitude toward the truth. Presidents and boards of directors were often reluctant to give the sales departments seats in their inner councils, and to accept the principle that they should seek able men for sales positions and pay them accordingly.

These improvements in status were slow to come, but in the main they have been achieved. It is reasonable to say that there is today no social stigma attached to the selling profession, although many of its members still insist on calling themselves almost anything except "salesmen." It is also true that in most companies today the senior marketing executive occupies as influential a position as any other department head, and has as good a chance as anyone else to become a general manager or a president-perhaps just a little bettcr. Marketing people are on the whole well-paid in comparison with pcople in other white-collar jobs requiring equivalent qualifications. Actually, there remains little or no reason for the marketing man to feel any inferiority complex concerning the status of his profession.

Attitude toward costs. With regard to costs, the attitude of most sales and advertising men (or at least most of the more articulate) is markedly different from that of most other business men. While the production, the accounting, and the office management groups concentrate perhaps too much of their energies on the effort to reduce costs, the marketing fraternity is constantly expounding the thesis that not only are distribution costs no higher than they ought to be, but that expenditures for selling and advertising should in most cases be increased still further.

The reasons for this lack of cost-consciousness, or reverse-costconsciousness, if you will, are not easy to discern. The line of least resistance is to assume that it is a simple case of special pleading: that marketing men, particularly those who work for advertising agencies and media, are simply urging a course of action which will tend to increase their own incomes. This assumption will not satisfy the more critical observer, however; it is too pat and relies too much on a presumption of extreme short-sightedness in the marketing profession. If one looks a little deeper, he will find more
plausible explanations. It canot be denied that it is very difficult to examine distribution costs critically; it is hard to measure the cost of a given unit of marketing effort, and even harder to define such a unit in the first place. The position that the only way to do a better selling job is to increase the amount of selling effort is easy to adopt because it is so difficult to establish the validity of alternative positions. But an even more important explanation of the typical attitude of the marketing man toward marketing costs may be that sales and advertising managers, in general, have not developed what will here be termed the "management point of view." Their concern has been and continues to be much more with sales or the advertising part of their jobs than with the management aspect.

The management point of view. The purpose of this volume and of this chapter is not to argue the existence or non-existence of a "management point of view" in marketing executives, or even, for that matter, to argue that they ought to have it. In this chapter it is intended to set forth what seem to be the characteristics of the management point of view; the succeeding chapers will develop some of the ways in which this point of view can be of value in the function and the profession of marketing.

It has sometimes been said that there are two kinds of jobs, those which people hold because of what they do, and those which people hold because of what they know-the implication being that members of management are in the latter class. Like most dichotomies, this is a palpable oversimplification; the job which requires a walking encyclopedia, and nothing else, is rare, and is certainly not a management job. Although it would still be an oversimplification, it might be more fruitful to think of a three-part classification consisting of (1) the "doing" jobs (mechanics, salesmen, accountants, taxi drivers, and so on), (2) the "thinking" jobs (research technicians, inventors, designers, judges, and perhaps professors) and (3) the administrative jobs, the essence of which is seeing that the efforts of the other two classes are channelled in the right directions. It is significant that although men normally reach the third type of job via the first, and this must of necessity continue to be so, the ideal "management point of view" actually corresponds much more closely with that required in the "thinking" type of job.

The management point of view, by which is meant the point of view likely to be found in the more successful administrators and which, ceteris paribus, is likely to result in better and more effective management, is characterized by at least six important attributes:

> It is Objective.
> It is Analytical.
> It is Skeptical.
> It is Forward-looking.
> It is Experimental.
> It is Human.

This is not to suggest that these attributes are the sole property of successful managers; they most assuredly are not. Contemplation of a hypothetical individual lacking in all of them might well lead one to cry, with Shakespeare's MacDuff, "Fit to govern! No, not to live!" Nevertheless, the successful administrator does nced them to a degree and in a balance which might prove an actual handicap to men engaged in other types of work.

The management point of view is objective. An objective approach is perhaps the most essential aspect of the "management point of view." No matter how necessary it may be to create enthusiasm on the part of the "doers," management can never afford to be carried away by its own enthusiasm. For the salesman or the copywriter to be convinced that he can and will double last year's sales may be a fine thing, but the sales manager must have something more than enthusiasm on which to base the estimates he gives to Production.

Another aspect of objectivity in the management point of view is the ability to see the forest rather than the trees, to recognize the proper relationship of the moment's problem to the business as a whole. "Morale" is said to have been defined by an American general in the recent war as the condition which exists when every man thinks that he belongs to the best platoon of the best company of the best regiment of the best division in the best army that has ever existed, and he himself is the best soldier in the whole world. That sort of morale is ideal for soldiers, but for the general-and the manager-it must be tempered with a sober evaluation of the importance of the other elements in the situation, the limitations of his own outfit, and the goal toward which all are working.

The requirement of an objective point of view implies the necessity for high-level management to divest itself of detailed responsibility, to delegate authority, to "manage by exception" (of which more will be said later). While these steps will not automatically result in an objective outlook, it is difficult if not impossible to maintain one when they are neglected.

The management point of view is analytical. "Intellectual curiosity" is a somewhat overworked expression, but there is no better way to describe the irresistible urge to find out why things are as they are, which distinguishes so many eminently successful men. It is the quality reflected in Kipling's well-known verse:

> I keep six honest serving-men
> (They taught me all I knew) ;
> Their names are What and Why and When And How and Where and Who.

-The Elephant Child.
It is the quality which most impresses people about Frank Stanton, whose favourite expression since he first joined the Columbia Broadcasting System is said to have bcen "Let's find out," and who has been "finding out" so successfully, that he was made president of the company before he was forty years old.

The analytical point of view is well illustrated in the contributions to this volume by Mr. Crisp on Sales Analysis and by Mr. Longman on Cost Control. These men have earned national reputations because of their insistence on resolving problems into their component parts and examining the parts to find better ways of putting them together.

The management point of view is skeptical. Unwillingness to accept things at their face value is an important attribute of the management point of view. One of the pitfalls inherent in the analytical approach is the false sense of security which can be conveyed by a carefully worked-out set of figures or chain of logic. It is well said that "figures don't lie, but liars do figure." Most statistics and most analyses involve assumptions, and however innocuous these assumptions may seem at the time they are made, they inevitably affect the end product. It is essential for management to look behind the figures and "facts" resulting from its analyses, to be skeptical of everything it hears and most of what it
sees until a critical examination has been made from all angles, and all alternatives have been investigated.

The critical reader of this book will discover, in a few instances, diametrically opposed conclusions on the parts of two contributors, each well supported and highly plausible in its own context. Which is to be accepted? There is no final answer. If there were final answers to business problems, someone would have found them long ago. The management point of view recognizes that there are none, welcomes divergent opinions when it is given the opportunity to examine what lies behind them, and gains from the study of all of them.

The management point of view is forward-looking. A skilful truck-driver talks of the need to "drive far enough down the road," meaning that his eyes and his thinking must be a considerable distance in advance of the vehicle at all times. This is equally true of driving a business enterprise. It is pointed out again and again in the chapters which follow that successful management requires changes and adjustments to be made long before they are forced upon the enterprise by the imminence of bankruptcy, and demands that new policies be based upon intelligent and properly supported forecasts of future conditions.

Management cannot, like the truck-driver, simply glance down the road and learn in an instant what is in store. It is not enough that management be concerned about what is about to happen, or that it allow for "contingencies" in its planning; it is always necessary to spend time, and usually to spend money, in order to provide an intelligent basis for "driving far enough down the road." Much of this book is concerned with the devices and techniques which are available to foresighted marketing management in this part of its job.

The management point of view is experimental. When a scientist speaks of a "controlled experiment," he means one in which all variables except that under observation are kept constant, so that the effect of this one variable can be isolated and observed. If a research chemist is trying to develop a better antiknock compound for gasoline, he must test each experimental formula in gasoline of exactly the same specifications, in a
"standard" engine, and under perfectly uniform conditions of temperature and humidity. A machinist trying a new shape of tool bit knows that he must test it in the same machine, cutting identical metal, and under the same conditions of speed, feed and depth of cut, before he knows how it compares with the old shape.

The necessity for this sort of control in technical work is recognized even by the non-technician. The business man, however, all too frequently neglects the principle entirely in his own work, and this seems to be particularly true of marketing management. When a sales manager decides that a product needs more "push" behind it, he is more likely than not to have the package redesigned, triple the national advertising, start a consumer contest, establish a special bonus for the sales force, add a few specialty men, and perhaps make four or five other changes in the marketing plan, all at the same time. If sales increase, the programme is considered a success, but no one has even the haziest idea which of the new policies really brought the results. One of the strongest reasons for believing that distribution costs are higher than they need to be is this general lack of evidence as to the effectiveness of specific policies, and the resultant tendency to use all possible methods in order to be certain that no tricks are being missed. To put it another way, the lack of standards of performance almost guarantees waste in marketing.

As Professor Brown and Mr. Needles make abundantly clear in their contributions to this volume, this question of standards and checks on performance deserves very serious attention on the part of management. A ship may make progress just by drifting with the current, if the current happens to be in the right direction, but this reflects little credit on the captain and none on the engineer. An increase in sales is always welcome to the stockholders, but it may reflect poor selling performance if it is caused by conditions beyond the control of the sales department. Contrariwise, a stationary or even a declining curve may represent real accomplishment under adverse circumstances. A specific standard is essential if management is to know, after all's said and done, whether its decisions were sound and its policies good. It is interesting to speculate on the hundreds of sound ideas that are
abandoned without adequate trial because of the lack of a standard by which to judge the results, and the millions of poor ideas perpetuated for the same reason.

Professor Brown, in the chapter on Standards of Sales Performance, discusses the concept of "control" in terms of statisticallydetermined limits which bound the areas of chance variation. It must be recognized that even when such limits cannot be found by mathematical processes, they nevertheless exist and must be estimated by the best means available. Management must always ask, in comparing results with its standards, "Is this difference really significant, or could it just as well have arisen by accident or from conditions which are not completely 'controlled'?"

The management point of view is human. The suggestion that management needs to be objective, analytical and experimental in its point of view seems to imply to some business men that it is desired to reduce human problems to equations, and to substitute statistics for personal relationships. Nothing could be further from the truth. Management by itself can accomplish nothing; it can only affect the accomplishments of others. If management forgets or neglects the importance of people, its other attributes are of little value.

Men engaged in marketing do not need to be reminded of the importance of one group of pcople-their customers. Advertising and sales promotional activities worthy of the name are always designed with particular reference to the people whom it is desired to motivate. Richard Borden, well-known authority on salesmanship, has illustrated this fact very neatly by likening an effective selling argument to the call of the bull moose. That call may not sound very pretty to the human ear, he says, but it sounds perfectly wonderful to a cow moose! The customer, of course, is the cow moose.

As fully as the importance of the human element is recognized in dealing with customers and prospects, however, it is sometimes neglected with respect to another group of people who are equally important to the sales manager: the people who work for him and who stand between him and the cash customers. If the emphasis on technique in this book suggests to any reader that this neglect is compatible with good management, the book will have missed
its mark very seriously, and will have done that reader a disservice.
This volume is intended to suggest that a more formal approach to management techniques on the part of marketing executives is strongly to be desired. The reader will deduce that the authors have faith in such devices as budgets, research programmes, cost analyses, and aptitude tests. If he also assumes that they like organization charts and clear statements of responsibility and authority, he will still be on the right track. On the other hand, if he sees these devices or "systems" as substitutes for human understanding, or if he looks on them as means for fitting men to a pattern, he will have left the rails completely.

Management "systems" exist, or at least they have a right to exist, only as aids to the maximum utilization of human resources. When management sets up an organization chart and a written specification covering the responsibilities of a particular position, it is not for the sake of placing a straitjacket on the incumbent of that position, but rather to release for more fruitful labours a certain proportion of the energies of the men in other positions who might have to worry about those particular responsibilities if they were not specifically assigned to someone else. When management establishes standards and controls for business activities, it does not set up a pattern to which all must conform, but a yardstick by which it can know when its attention is required, and thus avoid wasting valuable time and energy on matters which need no attention. Such standards and controls can and should actually result in greater leeway for subordinates to run their own jobs, and more effective use of the human resources of the organization. This principle, often called "management by exception," results not in the substitution of figures for judgment, but rather in insuring the application of judgment where it is needed.

The greatest Teacher of all time said "The Sabbath was made for Man, not Man for the Sabbath." The truth remains unchanged if we substitute "management" or "systems" for "Sabbath"; the management point of view must be, above all things, human.

The management point of view in marketing. If the management point of view is all too rare in the marketing field, there are several reasons for the rarity. In the first place, sales management seems not to be fully aware of its recently gained position as a
recognized element in the executive group. Vice-presidents in charge of sales are frequently heard to speak of "management" in a context which makes it perfectly clear that they do not consider themselves part of it. There is abundant evidence that many sales managers actually have never stopped to realize that they are managers. A second reason, which contributes to the first, is that sales managers frequently are given their administrative responsibility all at once and rather late in their careers, as compared to men in production or office work, who tend to be put in charge of at least a fcw other people as soon as they have mastered their first jobs, and to grow gradually in management responsibility.

Probably the most cogent reason of all for the rarity of the management point of view in marketing is that many of the characteristics of this point of view are rather different from those of the most successful salesmen, while sales managers typically rise to their positions through successful selling experience. The man who devised the selection system for sales personnel in one of America's largest marketing organizations recently told a meeting of the National Federation of Sales Executives that they found when they set up scientific criteria for selecting salesmen-criteria which proved fully sound in practicc-that they had ruled out almost all of the promising sales management material. It was then necessary to establish a separate selection plan for another group who, while not so promising as salesmen, would provide a reservoir of trainees for management positions.

The management point of view need not remain a scarce commodity in the field of marketing. It is not necessarily inborn, and in fact there is every evidence that it is being developed to an increasing degree. This development is found partly in the sales managers and vice-presidents in charge of sales themselves, but to an even greater degree in the employment of staff assistants, analysts, and research men who become in effect a part of management and who exert a strong influence on the collective point of view of the management group. There is no reason why this tendency should not continue and accelerate, or why the "management point of view" should not become the rule rather than the exception in marketing.

# 2. THE IMPORTANCE OF MANAGEMENT IN MARKETING 

Philip Salisbury

ANY CONSIDERATION of the importance of management in marketing today must begin with the importance of marketing itself, with particular reference to the after-effects of war. Anyone who was an adult at the time of the First World War will remember many changes which resulted from it. The wrist-watch was no longer for sissies. The hard collar became practically extinct, to be replaced by the soft collar-attached shirt. Smoking cigarettes was no longer a sign of depravity. French perfumes, tried once as gifts from the boys abroad to their loved ones, became necessities. These are just a few of the more trivial but nonetheless striking changes in our habits.

Now we have just concluded a bigger and a longer war, and the sales and advertising executives of this continent face perhaps the greatest challenge ever given to any one group in time of peace. We have fallen heir to a production machine capable of turning out in Canada alone something like $\$ 15$ billion in goods and services, and about $\$ 200$ billion in the U.S.A. We know that here and across the border we must go out and create enough markets to keep this great production machine humming, or we will face a depression which will make the one in the thirties seem like a Sunday school picnic.

Wars change markets; they change people; they change products; they change habits; they change incomes, and they change purchasing power. They affect business for a generation or more to come. In the ten ygars following the end of the First World War we kept production hamming by introducing radios for the living room, electric refrigerators for the kitchen, talking pictures for the theatre. We taught people to send flowers by wire and to buy out
of anticipated income. We hard-surfaced our roads and put the continent on wheels. We made recreation and travel two of our greatest industries. As people became more mobile, we increased the size of our trading areas and cut down the number of them, a development very similar to that now taking place in the chain stores field, where the tendency is plainly toward fewer and larger stores.

During the war years the production experts of the United States and Canada were the overlords of business. The call was for more and more production for war use, and the civilian economy got by as best it could with shortages, rationing, price ceilings, inferior or ersatz merchandise, meanwhile developing a great big healthy pent-up demand. Marketing executives and their salesmen became allocaters and rationers. Their creative function was stifled.

War caused our retail outlets to close by the thousands because of the shortage of merchandise. It caused others to change their policies and take on new items, with men's stores selling women's garments, cigar stores selling men's apparel, drug stores selling women's jewelry, hardware stores and auto shops selling soft goods, and electric appliance stores selling sheet music and phonograph records. The war rule of retailers seemed to be "If you find any other product you think you can handle, grab it before some other outlet does."

Rationing, shortages, and the world-wide movement of our troops combined to produce the greatest sampling demonstration ever created. We bought new products, new materials, new brands. A survey of United States magazine advertising by Esquire magazine in 1946 revealed that there had been since Pearl Harbor 23 new advertisers of home radios, 36 new liquor advertisers, 37 in the aviation industry, 62 in toiletries, 120 in jewelry, and 583 in clothing. In total there have been more than 1,000 new brands, new products, or new companies undertaking national advertising since December 7, 1941. Some of these products will succeed, while others undoubtedly will not, but the statistics offer striking evidence that, if we are to keep our vast productive plant going and to have reasonably full employment at good wages, we must create new markets and uncover new wants.

Wars bring challenges. This continent was not "discovered," it was built through inventive minds, productive genius, and supersalesmanship. After every war we have been challenged to expand, to open new frontiers, to build to new heights. But the challenge was never so great as today, because previous wars were not all-out wars, and there was much less expansion of the productive capacity. Today we must find, or rather we must create, markets for nearly twice as much as was ever sold before. We must find markets for not just one or two new industries but for hundreds of products developed during the war. There are aviation plants geared to produce 50,000 or more private planes a year. We have synthetic rubber superior in many respects to the natural product, backed by factorics capable of turning out greater quantities than we previously imported, but can new markets be found to absorb it? Television and F.M. radio are ready; can we interest the man in the street in these new gadgets? All of these things remain only a dream until translated into wants, and needs, and desires, but to do that takes time, and money, and salesmanship; perhaps twice as many salesmen and twice as much advertising as have ever been used before on this continent.

In surveying the problems and potentials of marketing executives, let us not forget what the war did to change both our habits and our desires. People learned to go without a lot of things, and many of them think now that they will continue getting along without them. Many people used to buy a new car every year. Now they have found that the old car looks well and gives adequate service for five years or even ten years. Men learned to get along with fewer shirts, shoes, suits, overcoats. It doesn't seem nearly as important as it once did to "keep up with the Joneses." Perhaps we will revert to our extravagant ways-but it is going to take a lot of salesmanship.

In the United States before the war the average manufacturer's salesman kept 33 men or women in factory jobs by finding markets for the goods these people turned out with their hands and machines. Today, with nearly twice as many people employed in factories, salesmen will have to be doubly efficient or we will need twice as many. In the United States it is estimated that we are going to have to select and train an army of five million more
salesmen than we ever had before for our manufacturers, wholesalers, retailers, and service industries. All over North America, private enterprise is faced with a choice of increasing its market or of falling by the wayside. It is the marketing profession which has the greatest opportunity, and the greatest responsibility, for if we cannot find markets for the goods our factories can produce we are going to have depression, and another big depression could well sound the doom of private enterprise.

This, then, is the task which marketing faces, the background against which the importance of the management function must be considered.

The task of sales management. What is the job of the sales department? The obvious answer is "to sell goods," but it isn't quite as simple as that. I like the analysis made by one of the executives of the Sylvania Electric Products, Inc., who says, "It is the job of the sales department to know more than anyone else in the world, and all there is to know, about our customers, our prospects, our products, our competition, our channels of distribution, and our own sales force." Unless the head of the sales department measures up well on all of these factors he is going to be only a top sergeant in management when he ought to be, and can be, a four-star gencral. The way is cleared for sales executives to occupy a leading seat in all top management's discussions and plans, but they will not reach that spot and hold it unless they are something more than "slightly glorified salesmen."

One of the prime responsibilities of marketing management is the relation and training of a sales staff. The hit-or-miss method of picking salesmen is rapidly dying out as new techniques of a scientific nature are advanced, experimented with, and perfected. Recent surveys indicate that about 25 per cent of sales managers in the United States are applying sales aptitude tests in choosing salesmen and in weeding out the weak sisters from the existing sales staff; another 50 per cent indicate a strong interest in the subject but have not yet made the plunge. Several sales managers have volunteered the opinion that their employment of sales-aptitude testing counsellors has been the best single investment they have ever made for their companies.

There will be very few companies strong enough to operate in the future on haphazard methods of sales training. The importance and growing professional status of sales training is indicated by the existence of a flourishing organization called the "National Society of Sales Training Executives."

Decentralization of sales responsibility. Another example of the growing importance of management in marketing is the marked tendency toward decentralization in sales management, and the increasing authority given to division managers, branch and district managers and salesmen. A director of the Standard Oil Co. of New Jersey said recently that the two major tasks of a business enterprise are to manage efficiently, and to provide the individual with the widest possible opportunity for growth and development. The prewar brand of sales management was much too centralized for its own good. Too many decisions were made in swivel chairs and around conference tables in home offices. Programmes were developed which looked well in theory but did not work in the field. Branches and salesmen were given very little authority. Precious time was wasted, and buyers were annoyed, because of the delays in getting decisions from the top office.

Today enlightened management feels that it is much better to handle problems close to their source, where they can be conducted more informally, on a more personal basis. One big company in New York with many divisions and a dozen branches hopes that some day everyone of its customers will know only one address of the company-the address of the nearest division sales office. It will be to that address that the customer will go with his orders, his credit problems, his invoices, his complaints, his problems of correspondence, order handling, adjustments, and all the gamut of things which mean sales.

Merchandising organizations as well as manufacturers are seeing this new light. In the United States during the twenties and the thirties chain stores were unpopular with the people in many of the communities where they operated, not because of any dissatisfaction with the merchandise or the prices, but simply because the public felt that here was a rather inhuman organization which was draining money out of the community, and contributing very
little in return. When a solicitor came around to ask for a contribution to the Community Chest or to some other worthy local charity the chain store manager said, "I'm sorry, but I haven't any authority to give you any money." Today the chains have corrected that situation by giving their store managers far more authority, so that they can compete with the independent merchants as human beings and not just as vendors of merchandise.

The American Newspaper Publishers' Association has developed a very happy slogan, "All business is local." Because this is an obvious truth, the only surprise about decentralization of selling operations is that it has taken so long to come into being. Selling is a decentralized operation, carried on largely in the market, outside of the company's plant. Production, on the other hand, is essentially a centralized operation, since it is done inside the plant, and so are purchasing, finance, research, and the other primary activities of the business.

As John Allen Murphy pointed out in a recent issue of Sales Management, the business of a railroad is to run trains, and the final unit in the railroad's decentralized management is the conductor. He is in charge of the train. (The ultimate objective of all business goods. The man in charge of the sale is the salesman. Everything that was started by top management and acted on by down-the-line management is finally consummated by the salesman. He is the company's pay-off man, the bottom manager in the organization's tier of management. While the salesman carries out major policies and instruction, he too must have some authority. He is a vital link in the company's management. He should be allowed to use his judgment, to make decisions, to initiate, and even to make some mistakes without fear of being reprimanded. The isolated nature of his employment, working alone, out of immediate touch with any other employe, makes it imperative that he should have more freedom pf action than an employe who is working in a factory or office.

Mergers, new products, and other complexities of business have speeded up the decentralization of sales operation. Where a company has a single, simple line selling to one market it has been able to function satisfactorily with a centralized sales department. But as soon as it adds other lines or begins to cater to diverse
markets, a different kind of sales organization seems to be necessary. For example, while the new Simmons Electronic Blanket is a bed product, it will have to be sold in many departments where beds are not sold. So the Simmons Company has to set up special sales machinery for selling it. The Koppers Company cannot sell its highly diversificd line, to its many types of customers, with the organization it used when its only product was coke. The Carborundum Co. of Niagara Falls has had four years of satisfactory experience in placing more authority in the hands of its district sales managers. Before 1943 the company had in the home office a sales manager for each of its major products, and under this arrangement each one of the district managers dealt with a different sales manager in the home office for each product division. Now each of the 13 district managers reports to one of the three regional sales managers and they in turn report to the vice-president and general sales manager. The 13 district managers were given larger responsibility, and each one is responsible for all operations in his district. The home office budgets expenses for cach office after consultation with the district managers, and each district manager takes an active part in suggesting sales, merchandising, and advertising plans. Each manager may make recommendations for advertising media. He is charged with administration of merchandising plans within his district. The district manager makes recommendations for additional personnel and promotion. He screens prospective employes and handles the rating system for each salesman.

Selective selling. No aspect of marketing offers more opportunity for the exercise of management talent than does the selection of customers and prospects. If we are not to go through a period of "profitless prosperity," we must manage our sales activities so that we know whether or not a given territory, salesman, or outlet is returning a profit. It has long been said, and generally admitted, that in most companies 80 per cent of the business comes from 20 per cent of the customers, but very few sales managers have paid more than lip service to the idea. To make sales, and to make them with a profit, in the postwar years will mean more and more concentration on profitable accounts. This does not necessarily mean concentration in the big cities, but it does mean concentration
on accounts which are good for regular, if not frequent, orders, who do a good job of merchandising, and who pay their bills promptly. These merchants are just as likely to be found in cities of five thousand as in cities of one million population, and the percentage found in the smaller communities is likely to be much larger than in the big metropolitan districts. In New York, for example, one thinks of a mammoth organization like R. H. Macy \& Co. and some of the Fifth Avenue stores, but the "typical," or "average" store in New York is the "Pop and Mom" store which provides a living for a family, but which is unlikely to gross more than $\$ 25,000$ per year. It is not easy to do, but management musq answer the question, "Where are my best customers?"

- Changing markets. The prewar pattern of sales on this continent is gone for good. Vast areas lost population during the war years and there are no signs that these sections will regain their lost people. Where they lost, such areas as the Pacific Coast and the South Atlantic states gained. (To map out a scientific marketing plan today the sales manager must discard all of his prewar quotas and must shift his sales and advertising pressuresf Most big cities are either losing population or barely holding their own, as more and more people move to suburban areas. Both sales and advertising managers must be on the alert constantly to know where people live and how many there are of them, where they buy, how much they earn, and how much of their earnings they may be induced to plow back into merchandise.

Ever since 1929 Sales Management magazine has been evaluating American states, counties, and cities in these terms, and its annual Survey of Buying Power, which gives this information, has become the most widely used and accepted statistical source. Iq 1947 the Survey of Buying Power is being extended to provide for Canadian provinces, counties, and cities, the same data which have been provided for the United States in the past.

The importance of attitudes. Successful management in marketing is not entirely a matter of technique. The whole point of view of the manager is important too. In the coming competitive struggle for business the "take it or leave it" attitude is out. This is true whether it is applied to the public, to jobbers, distributors, and dealers, or to one's sales force. Just as labour-management has
set up grievance committees in factories and machinery for adjusting complaints and grievances promptly, so must the sales executive of tomorrow do more than he has ever done in the past to find out what his prospects, his customers, and his employes think of the company and its policies and practices.

So far as salesmen are concerned, it isn't just enough to announce that a sales manager has an "open door" policy: he must go further than that. He must consciously and aggressively try to find out what is bothering his salesmen; he must spot, appraise, and spike grievances, or he will have poor morale and that poor morale will result in low sales volume, a high rate of turnover, and, if present trends continue, he will wake up one morning to find that he is dealing with a union representative instead of with one of his own salesmen. When salesmen are dissatisfied, a union offers three services which are peculiarly appealing. First, through the union the company can be attacked with impunity, because the individual salesman as a member is anonymous and is, therefore, safe from management reprisals. Second, the union has proved its ability to force concessions from the company which the salesman as an individual believes that he is incapable of doing. Third, where the union is strong many of management's powers are taken from it, such as the authority to discharge, and often the union representative comes to have more authority than the sales supervisors and is in more direct and more frequent contact with the home office than are the field supervisors.

Remember that under the stress of war people accepted indifferent or ill-natured service, poor merchandise, and high prices because they could not do anything about it, but many of them today are itching to "get back" at storekeepers, head waiters, service station employes, and even sales managers who rubbed them the wrong way. To counteract this irritation will require more attention to the customer and his needs than ever before.

Recently one of the younger salesmen of the Proctor Electric Co. asked the vice-president in charge of sales, "When is a sale of one of our electrical appliances complete?" The vice-president answered: "The sale of a Proctor electrical appliance is complete when id purchaser is so entirely satisfied with its performance that she uk. hesitatingly and enthusiastically recommends it to a friend."

It is going to be up to sales executives to observe more carefully and to spend more money in market research in order to find out what pcople really think about them and their companies, because what they think is going to be a motivating source in their purchasing decisions. Remember, too, that competition is not going to be just within one industry; if you want to sell a radio-phonograph combination, it may turn out that your real competitor is a new rug, or an electric refrigerator, or a vacation trip to the Rockies. A sales manager can't learn too much about what is motivating both his employes and his prospects; his products and policies may be the best, but if pcople think they are bad, then they might just as well be bad so far as practical effects are concerned.
(Co-ordinating the tools of sales management. A generation agd, advertising and selling were looked upon as separate fields, and the sales manager was not expected to be concerned with the problems of advertising. In the intervening years it has become widely recognized that the advertisement is a sales tool. The sales executive has several tools of selling at his disposal, such as salesmen, direct mail, advertising, catalogues, exhibits, films, and the like. No house can be built with one tool. Consequently, modern management tries to team up the various tools of selling to get the best results and this is particularly true of personal selling and advertising.

As one of the executives of the J. Walter Thompson advertising agency pointed out in an article in Sales Management magazine, "Markets are 'people' rather than 'places.' The problem begins with the determination of what people will spend in one type of market as compared with another, and how they can be reached most effectively. Any territory is a composite of the various market classifications within the territory. In most cases, the advertising media selected for a particular job have a direct bearing on the sales problem involved. For example, certain magazines will be selected because they appear to reach the right kind of people all over the United States. In this sense they provide national coverage. Radio may be added to provide even greater coverage of the national market. But the question is whether this investment in national coverage represents over- or under-spending in relation to sales potentials by individual markets and whether each sales ter-
ritory is getting its share of the total appropriation." To come anywhere near reaching our company objectives, and our national objective of prosperity for all, the marketing managers will have to work more closely than ever before with their advertising departments and agencies in order to relate the advertising more specifically to known problems and potentials.

This has been a rather sketchy-and an admittedly incompleteoutline of the importance of management in marketing as I see it. There are great opportunities ahead for those who turn out a good product and sell it intelligently, but there may be also oblivion for those who are smug and complacent.

It is my sincere belief that most of the marketing executives of the United States and Canada will welcome the challenge which war's end has presented; and that they will accept their share of the responsibility for leading their nations toward permanent peace and prosperity.

## 3. THE PLACE OF RESEARCH IN THE MARKETING PROGRAMME

R. Parker Eastwood

IN ONE OF ITS standard presentations of market data the A. C. Nielsen Co. has used these words of Abraham Lincoln: "If we could first know where we are and whither we are tending we could better judge what to do and how to do it." It is fitting that persons in every realm of knowledge should occasionally take an inventory. The more rapid the changes the more imperative this periodic stocktaking becomes. We in marketing research have special need of an inventory since changes in this realm of activity within recent years have been tremendous.

In a recent article by the manager of the research department of a large publishing house I came across these words: "It seems clear that marketing research has come of age." I suggest that "coming of age" is a relative concept. If we compare the emphasis given today to this type of research with that of forty years ago when Charles Coolidge Parlin established the first commercial research department, then we must admit, I think, that marketing research has "come of age." If, however, we appraise the activity now carricd on in the name of marketing research with what marketing research may become, we must, in my opinion, reverse this judgment. Not only has marketing research not come of age, it has not even outgrown its swaddling clothes.

Now, this statement will be recognized as an expression of opinion. A marketing research man is supposed to deal with facts. Yet the existence of an opinion is certainly a fact. And a fact is a very stubborn thing which influences future events. An opinion researcher might "count noses" to see how many persons hold opinions similar to my own. He might feel that he has resolved the problem when he comes forth with a statistical result showing
that only 2.7 per cent (or some other small fraction) of all the people in the United States and Canada agree with me. That, however, would not disturb me in the least. The opinions on some questions of immediate political, social, and economic importance might well be tossed into a common statistical hopper and analyzed as though they were of equal quality. On this question of the present status of research in distribution I insist that the quality of one's opinion must take precedence over the quantity factor.

In our haste and impatience to resolve into numbers opinions on a great variety of social and economic questions we often neglect to study the process by which opinions are formed. If we may compare people's buying habits, as well as their general social, economic, and political behaviour, to the contents of a whiskey barrel, it appears that we measure and analyze continuously what is coming out of the spigot without paying enough attention to either what is going in at the bunghole or what processes of fermentation are taking place within the barrel itself. If this be the realm of the social psychologist, then the market researcher of the future must be trained to think as a social philosopher. Otherwise his work will never rise much above its present stage of "nose counting."

The scientist in cvery realm of knowledge has a troublesome habit of always asking "What is the evidence?" In representing marketing research as a mere infant whose potentialities are far from realized, I must be prepared to present evidence for the "faith that lies within me." Without such evidence the opinion I have just expressed becomes little more than wishful thinking.

Expenditures in research. The most obvious criterion of the significance of marketing research as a basis for marketing management is the amount of money that management has been willing to spend on it. The data dealing with research budgets are not all that a statistician desires but they are sufficient to provide us with a basis of comparison.

Before the Second World War private industry in the United States was expending on industrial and technical research somewhere between fifty and sixty dollars for every dollar spent on marketing research. During the war years private industry greatly increased its expenditures on research. The appropriations for marketing research were doubled. "Postwar planning" became
popular and spread like an epidemic. In the meantime appropriations for industrial research were more than doubled, so that industry was spending between $\$ 60$ and $\$ 70$ for this kind of research as against every dollar it spent on distribution research.

While industry was appropriating research funds in this manner, how was the consumer in the United States dividing his funds? According to the study made by the Twentieth Century Fund entitled "Does Distribution Cost too Much?" the consumer's dollars were applied as follows: seventy cents to defray production costs for each dollar used for distribution costs. To an inhabitant of Mars who knew nothing of our world's industrial history, such a disproportion between research and economic effort would be taken as evidence of economic insanity.

When we consider the relationship of marketing research expenditures to the amounts spent on advertising and selling we see the same disproportion. The pattern would appear even crazier to an inhabitant of Mars, since presumably those who spend the funds on advertising and selling have the authority to say how they shall be allocated. In 1940, Sales Management magazine asked 345 industrial companies how their advertising appropriations were spent. These were the larger companics and, if anything, were the most research-minded. They reported that they were spending $\$ 1$ on marketing research for each $\$ 417$ on industrial advertising.

Does this kind of a relationship indicate that marketing research has come of age? On logical grounds alone we should concede that $\$ 1$ would be a modest expenditure to ascertain the appropriateness of a $\$ 100$ investment. Yet I do not know of any single company which is spending as much as 1 per cent of its advertising and selling costs on marketing research.

Number of enterprises doing research. A second way of appraising the significance of marketing research to management is in terms of the number of business enterprises that recognize it as a distinct function. Any firm that sells will probably be found doing some things that resemble research in marketing. Yet very few companies do any consistent organized work in this field. The National Industrial Conference Board, in their excellent study on "Organization for Market Research," report that out of 4500 manufacturing firms which replied to their questionnaire only 11.5 per cent had
organized marketing research departments consisting of one or more employees. And 62 per cent said they did no marketing research. Among the smaller companies (those with annual sales under onehalf million dollars) the per cent of firms doing no marketing research ran higher. Even among the largest companies (587 firms with sales in excess of five million dollars annually) 27 per cent reported that they were not doing marketing research.

Anyone who is familiar with the biases that tend to creep into responses to a mail questionnaire will appreciate that the sample used by the National Industrial Conference Board was probably weighted in favour of those firms doing marketing research. When more than one out of four of the largest companies in a sample of this kind report that they are not doing marketing research, it would seem that this infant activity has a lot of growing to do before it becomes of age. When the market researcher goes looking for potential markets he might do well to explore the potential market for research itself.

How business itself regards marketing research. A third index to the maturity of research in marketing is afforded by the way in which business itsclf looks at research. Advertising and promotion men were first to see the powerful weapon that research could be. Newspaper and magazine publishers were quick to see the possibilities of using research to sell advertising space and to extend their circulation. Publicity men and advertising agencies seized upon research as a source of advertising headlines and copy. Any bright young man who had a flair for numbers might be designated to do the "research" work. What he needed to know about marketing he could gather as he went along by the simple process of social osmosis. Formal training in such formidable subjects as economic theory, industrial history, psychology, logic, accounting, and statistical methods seemed quite unnecessary. Given an inquisitive turn of mind and a certain amount of "drive," all that anyone needed to get into marketing research was a desk and a few books containing an assortment of statistics. With such assets, both tangible and intangible, a person could quickly become recognized as a market researcher.

The influences of this past condition linger on into the present. There are some who insist that these vestiges of an earlier period
are the only true guides for the young men and young women who plan to make marketing research their life's work. They point to the persons who have succeeded without formal education. They single out some of the best marketing research departments in the country, and, of course, you will find these headed by competent men who never had any formal training in the techniques of marketing research. Yet to assume that what is true at the present is going to be truc in the future is to indulge in a dangerous form of wishful thinking. As a statistician I would say it is on a par with the extrapolation of a statistical curve fitted to your sales after you have started to manufacture a complete new line of products and changed your advertising policy.

In the ficld of business cducation we are turning out a distinctly new "line of product" in the form of young men and young women interested in making a career of marketing research. These young people get in a few short years in college what it has taken some of the present practitioners in research a good part of their lives to find out. When these people, trained in the techniques of research, take positions of a subordinate nature in some research organization or department of research they are bound to make mistakes. Quickly, however, their knowledge of theory and techniques is going to become seasoned with practice. Then, I predict, things are going to change. Some of these changes may not be altogether to the liking of present management. The path of wisdom would seem to be that of preparing for changes which have already been conceived. In fact, the period of pregnancy is so far advanced that anyone who reads the journals or attends marketing meetings can scarcely fail to observe the conditions that are now in the proces of maturing.

New type of personnel in research. Our colleges and universities are providing the sced-bed, and industry will reap the harvest as the students now in college graduate and apply for positions. Some will carry with them a Bachelor's degree, some will have their Master's degree, some will be Doctors of Philosophy in Business. They are going to be asking you for jobs. As business gives them the opportunity they can give busines what only a mind trained in the techniques of research can give.

This influx of new blood from the campus and the study hall is bound to raise personnel problems. Those who became "researchers" by simply changing their shirts and starting pipe-smoking will feel very uncomfortable. Already I see signs of this discomfort in the articles that are appearing on the subject of research. For example, one vice-president in charge of research says: "Too often, the research pattern is planned by Phi Beta Kappa minds with theoretical university training, adept at slide rule analysis, who have no proper appreciation of the practical marketing problems."

Again, a person who feels thoroughly disgruntled writes: "Is marketing research something for high-brow discussion by a few practitioners or is it to be kept an understandable tool for business?" The terminology seems to be a "pet peeve" with some people. For example, one person writes: "Some market researchers love the word universe. Now why did these fellows have to leave this mundane terrestial globe and go off into celestial stellar spaces to get a word?"

I cite these examples merely as "straws in the wind" indicating storm conditions in personnel ahead. We can be prepared to meet those conditions if the teachers in college and the employers in industry co-operate. College teachers have an obligation in the type of instruction they give, and men in industry have already taken steps to meet the problem by going back to school for additional training.

New type of organization in research. The new type of personnel coming into marketing research calls for a new type of organization. In many instances marketing research began as a subordinate activity within the advertising or the sales department. It is now time that advertising and sales exccutives recognize that research, if the word itself means anything, must not continue to be a tool, as it often is, of either the advertising or the sales department. In my opinion research should not be a "tool" of any one department. Not even top management should regard research as a "tool." Instead, research must be a guide, and no good guide will ever take orders once he has been hired to do a job. Marketing and distribution problems are too acute for the activity that is directed toward their solution to have a status below that of top
management. Marketing research men must in the future take their place at the conference table where matters of policy are being decided.

The men who do research in marketing and distribtition must be able to anticipate the need for facts. How can they anticipate this need if they do not know what top management is thinking and what its grand strategy for the future is going to be? Too often research men have been called in to do a quick job after management discovers that it needs some more information in a hurry. Research hastily done for management that has gotten into a jam is not likely to be of the highest quality. Good research is by its very nature a rather slow and tedious process involving a great deal of checking of figure facts and the application of statistical methods of analysis.

If research is to serve management in its proper manner it should point the way so that management will avoid getting into that unenviable position where it must resort to research in order to prove that what it did was right. The best rescarchers do not pride themselves on getting business out of trouble. Their highest purpose is to keep business from getting into trouble. A mariner's compass is the symbol of their responsibility to business management, not a tow rope.

In the execution and the administration of research no less than in its planning the research man should have direct contact with top management. He should occupy a position of such pestige within the organization that his way to necessary and essential information will not be blocked. A sweet disposition coupled with the art of gentle persuasion are desirable traits for anyonc. A market research man should have them and use them. Yet when the occasion arises when these noble qualities fail, as they sometimes do, he should be armed with the "power of subpoena" from the president himself in order to gain access to the facts.

Finally, in the selling of research there is need for this direct contact with management on the policy-making level. And research has to be "sold" just as any other service has to be sold. Failure to sell, although an understandable weakness, must be interpreted as a failure of research itself. But the refusal to sell which is represented by that attitude which leaves the burden on management's
shoulders of finding out what the results mean is a form of intellectual snobbery. The sooner our young men and young women who are now studying research technique in college find this out and practice it the better it will be for them and for the advancement of research in all branches of the social sciences.

Those now engaged in marketing research as well as those who are studying to enter this growing and challenging field have a heavy duty to discharge if they make themselves worthy of the position of prestige and responsibility that sitting at the counciltable with top management implies. Only a relatively small fraction of those now engaged in marketing research possess qualifications that would warrant management placing them in positions of such prestige and responsibility. Those who have the training in the procedures of research usually are lacking in experience or have difficulty in distinguishing problems from techniques of solution. They are more anxious to sell some particular technique than they are to solve the problems which management faces. On the other hand those whose experiences and general viewpoint are such that they see clearly the problems are often inadequatcly prepared to undertake the kind of research that is required for their solution.

In my opinion this is a situation that can be corrected only by co-operative effort between our universities and the business communities in which they are located. On the part of the university there is the responsibility of framing a programme of study that will qualify young men and young women in those areas of knowledge essential for the effective researcher of the future. Teachers of marketing research must conceive their subject as cutting across traditional fields of knowledge. Marketing we shall all agree is an essential subject of instruction. Beyond this lic such subjects as economic theory and economic processes, accounting, statistics, psychology, and sociology. All of these could be properly labelled as standard mental equipment for the market researcher of the future.

On the part of the business community there is the need of giving greater opportunity for growth to those who enter the field of marketing research. If top management undertakes to tell them what they should find out, or places them in a position where they are little more than data gatherers whose chief concern is to get
facts to support a predetermined course of action, they never will develop into market researchers who can give effective aid. Only by setting them free on projects wherein they can give rein to their scientific training will industry be rewarded.

Research in marketing, like research in chemistry or physics, must be conceived as an extension of the principles established more than two hundred years ago by Copernicus, Galileo, Huygens, Kepler, Newton, Descartes and other distinguished scientific men. The person engaged in this area needs to think highly of his calling, for it is truly a great company with which he is affiliated. It is a company that includes martyrs-men who would rather die than falsify. That is the creed of the scientist, and we in marketing research sorely need to study it and practice it. As we do we shall find our search for truth has been set above monetary reward. The task will be difficult and yet easy, as Aristotle said it was. "The search for truth" said he, "is in one way hard and in another easy, for it is evident that no one can master it fully or miss it wholly. But each adds a little to our knowledge of Nature and from the facts assembled there arises a certain grandeur."

## 4. SALES FORECASTING AND BUDGETING

Ira G. Needles

THE SUBJECT of sales forecasting and budgeting divides itself rather logically into three major parts:

1. Sales Forecasting-That is, "How much can we sell?"
2. Budgeting of Costs of Operation and Profits-That is, "How much net profit can we make?
3. Continuous Review and Control of Sales and Budget Fore-casts-That is, staying on target.) $r$
A good pilot must know to what port his ship is sailing before he clears the home port. He plots out his course to take advantage of winds, tides, and drifts through sea lanes that have been charted from long experience, and every day he takes a bearing to determine whether he is still on course. The winds blow and the streams of the sea drift him off course but every day he charts his position, corrects his course, and even though diverted from it he continues steadily toward his target-the port of destination.

Sales volumes and sales costs, together with the resultant profits from operation, must be estimated in advance in order that we may know whether a successful operation will be experienced. This can be done, sometimes with amazing accuracy, and always with reasonable and satisfactory results if sufficient time is spent in collecting available information about past operations and future trends, and a continuous check is kept on progress. It is true that statistical backgrounds and economic trends must be studied, and that there must be skill and knowledge on the part of those making the plans in order that their judgment may be reasonably sound, based not only upon available statistics but also upon knowledge of trade developments and trade trends within and without the industry. However, many of the fundamentals necessary to forecast the
probable success of any business from a small retail store up to a business running into the hundreds of millions, can be done in a creditable way by almost anyone who is determined and willing to spend the time and effort necessary to do it.
(With the forecasting of sales must of course go its closest cousin, budgeting. Forecasting tells us where we are trying to go and whether we may have a good chance of getting therc. Budgeting tells us the cost of it all and provides for continuous control to determine whether we are still on target.)

Before we get into the subject of how to forecast or budget, what purpose does all this time and effort serve? Men like Columbus sailed ships across the ocean centuries ago. Some of them reached the wrong target but they made history just the same. They had good fortune. However, any man who depended upon their meagre aids, and arrived at some totally different port from the one for which he set sail, would be given little chance for cargoes under present-day conditions and would probably fail, just as have so many men who have started out to pilot a business course without knowing definitely the point of destination or the course by which they expected to arrive.

Profits the goal of all business. It is reasonable to assume that most men and women in the marketing profession want to learn more about marketing and more about their jobs so that they can carn greater shares of responsibility from their employers. Or, to put it more bluntly and directly in terms we all understand, so that they can make more money. All of us want to make more money. We measure our own personal success in terms of the money we make. But remember that the boss measures his success that way, too, and his bosses measure theirs in the same manner. The big boss, the stock-holder in the big corporation, wants dividends, increased surpluses, and money for expansion. The only way he can get them is to make a profit, so the final and positive definition of success in business is the ability to make a profit. We are really all after the same thing-more money. Invariably, success in business is measured primarily by profit.

Don't ever forget, and burn it into your memory in flaming red letters a foot high, that the only definition of a successful business is a profitable one. Every single method and means that can be
used, every study made by economists on production plans, the purchasing, the marketing, and everything that goes on to make a big operation, is pointed toward one ultimate objective-making a profit. (Profits, dividends, surpluses-those are the positive earmarks of a successful business.) The only way to succeed as an employee is to make money for your employer, and the only way to do that is to help operate a successful, that is to say a profitable, business.

One way to find out whether you can make a profit or not is to get some capital, preferably some money that belongs to somebody else, then go and rent a location, buy some furniture, get some merchandise and sit down on the front door-step and wait for somebody to come along and buy it. Then at the end of the year, if you haven't yet gone broke, have paid all your bills and have a few dollars left in the bank and have paid off the fellow you have borrowed the money from, you've made a success that year. A large number of people do just that; some of them succced; more of them do not. If they do a reasonably good job of scrving the public, are otherwise reasonably ethical, and if times are good, they temporarily may make quite a success. In the process they may learn something about forecasting sales and budgeting expenses and profits, and before times get too bad learn how to manage the business properly and make a permanent success. Generally speaking, however, they find out that they are not succeeding only after it is too late to do anything about it.

Forecasting. So let's get down to business now and find out what we can do to determine in advance whether we can succeed; that is, make a profit in business. (The formula to start is simple: all you need to do is sell enough merchandise at enough gross profit in dollars to pay the expenses of the operation and have something left over) The goal is as simple as that, but the trick of doing it is more complicated. That is where the forecasting of sales and the budgeting of profits and expenses begin to come in. By these means we can determine in advance what we can hope to accomplish in sales volume, from which we can get a pretty good idea what gross profits we will make, and then we can set up the amount of money that we can afford to spend to operate the business. If it appears we can get a location, provide the fixtures and
the write-off, do the advertising and employ the help we need within an operating budget which will be lower than the gross profits available, then we can market successfully.

If we are going to try to start up a manufacturing plant or increase the capacity of the one we have, then of course we have to know where that merchandise is going. So we plan in advance how much of a certain product we can sell, and whether or not we can sell it profitably, then set up our production or expansion plans accordingly. As an example, we have just completed an expansion in our plant that will practically double our pre-war rate of production. We naturally had to prepare for a reasonable Board of Directors and top management an estimate of sales, expenditures, and profits that showed that we could make money on this expansion. No good Board would be willing to convert millions of dollars of cash assets into fixed capital assets, unless they were convinced that there was at least an excellent chance that the total potential and the ability of the marketing organization to secure a share of that potential would result in a final satisfactory profit on the investment.

To deal with a specific example, I want to tell you just how we go about setting up a forecast of tire sales. The job of forecasting tire sales happens to be a statistician's paradise. We have very substantial information available upon which to make these forecasts. There are three principal markets for tires produced in Canada: the replacement market, which is the market provided when you blow out or wear out a tire on your car and need to buy one to replace it; the equipment market, which is the one provided by manufacturers of cars, trucks, farm tractors, road graders, farm wagons, etc., who sell tires as a part of their finished products; and the export 'market, which takes about 30 per cent of Canadian production of tires.

Fortunately, in all of these fields we have quite a lot of reliable information upon which to depend. The tire manufacturers themselves have made provision for collecting information about the number of tires produced and sold in these various markets in Canada. A tax-eager government charges you a fee for registration of your car and truck so that we know how many motor vehicles there were in Canada in every year quite a long way back.

For instance, there were 90,000 motor vehicles in Canada in 1915, and this number rose steadily until we hit the million mark in 1928, and then the high point of $1,600,000$ in 1941. Due to the war and the deficiency of production, this number settled back to about $1,500,000$ cars in 1946. How many cars went to the scrap heap and how many were resurrected in the last five years, probably no one will ever know, but we do know that if anyone pays good money to buy a license for his car or truck he must be operating it and, therefore, he must be using tires.

Then, too, we know how many tires are purchased for replacement on passenger cars and also on trucks during each year, and by breaking these data down and comparing them with registration figures, we know approximately how many tires per year are used for each passenger car and for each truck. As a check on that information, we have tax data which disclose the number of gallons of gasoline sold for motor vehicle use in the various provinces, so that by calculation almost anyone can figure out the approximate number of miles driven by all vehicles, and thus a check figure on tire consumption can be developed.

Further, by studying the records of new cars and trucks sold each year we know about how many of each model there are operating, and we can allow for those new cars with new tires on them, which will not come into the market for replacement quite so soon as some of the other and older cars. However, it has been shown in various studies that these new cars are driven more miles, generally speaking, than the older ones. This is quite natural, considering that a large number of them are bought by commercial salesmen and business men. This provides a further refinement of our estimates.

Not only are figures collected by members of the tire industry for each size, type, and ply of tire sold in the replacement market in Canada, but the registration statistics of cars and trucks are available for every county and practically every hamlet in Canada. Consequently, we not only know how much business there ought to be in total but we can put our fingers right where it is, and then by looking at our own sales records can determine whether we are getting our share of business in that market. The completeness of this data, right down to the smallest detail, sometimes gives the
sales manager the jitters because his management can determine whether he is doing a good job in every market in Canada.

Having developed the number of units we are likely to sell as an industry, we can draw upon our past records and calculate our share of units, figure out how much advertising we are going to do, how many more distribution outlets we have, how much new business we have taken, how much we have increased our range of products, etc., and arrive at an estimate of the increased share we ought to secure against that potential. Of course we have to do a little guessing and sometimes those guesses are wrong and we fcel like leaving on the next cattle boat for South America, but somebody has to do the guessing and at least we try to do it in an intelligent manner. Actually, after so many years of experience in an industry one learns to do his guessing in a reasonably constructive and conservative way, with the result that we do not often go very far wrong.

Adjustment for unusual circumstances. But wait a moment. That programme was fine up until 1942 when the war came on and Pearl Harbor knocked out about 92 per cent of our rubber supplies. Perhaps you remember when tire rationing had to come in. So over quite a period the average consumer did not get any tires; only farmers and war-workers got them. However, by working out the number of tires delivered for use during those years (and it was very slim from 1942 to 1945 inclusive), and working out a probable average depreciation in tire mileage on cars which were not in the groups eligible for new tires, a pretty good idea could be obtained of the volume deficiency accumulated during those years which needs to be supplied.

If you can visualize a chart with a rising consumption of tires over a period of years, and then a sudden very severe drop in the shart, with a gradual return to the normal trend line by the end of 1945 , you will see that there is a large pocket of unfilled tire demand there. However, when rationing was ended early in 1946, production started to boom, availability increased rapidly, and the tremendous shortages of tires were quickly satisfied, with the result that sales went up to twice the normal amount. So here we are n a period of a tremendous surge up and above the normal line of zonsumption, and probably starting to slide toward that normal
quantity shown by the average trend in 1947. Part of the problem is, therefore, to bring that total potential chart forecast down toward the normal consumption level slowly and smooth out our pattern of total potentials.

Having made this forccast for the future (and we have done it as far as four years ahead), we watch these trends from the industry statistics available every week so that we know whether or not we are diverting from target or right on target. This makes it possible to correct a degree of crror before it is too late to do something about it, to put on more sales and advertising pressure to get a larger share of declining volume, cut expenses to stay within the declining profit margins from lowering sales, or to increase production and sales effort to cover increased requirements up to the limit of our capacity.

Every week we know from our statistics and our projections of volume whether or not we have a problem of increasing sales effort. When we know promptly what and where the problem is, we have time to plan and make corrective moves. That is almost like the captain of a ship who takes a reading every day and determines whether he is on the wrong course and makes corrections accordingly, so that when he makes his final landing he is not more than a few feet off the point where he wants to be. Had he not made those corrections all the way along, however, he might have landed in Africa instead of England.

The export expectations, of course, must be worked out by our Export Division and their job is a little more difficult. However, they too have information regarding car and truck registrations in all the countries in the world. They know the countries we will serve from this plant, they know whether local plants exist or are planned, and if so they can tell from the capital investment in the machinery, the size of the building and other information available to them, such as the number of employees, about what the production will be and whether or not these plants take care of the entire requirements of the countries. Also, we have statistics of exports by markets to guide us in working out a sales projection for this field, and we can tell pretty accurately for two or three years ahead what the profits will be, unless there is some unusual development. Right at the moment we are working on export permits,
and the shipments we are allowed to make to export markets depend upon the shipments which were made in a basic period before the war. This is probably taking care of less than one-third of the actual export requirements, and these volumes will increase as the availability of rubber and reduced need for the local replacement market permits.

The tires which are required for delivery on new motor vehicles and equipment are reasonably predictable, because under present conditions all of the manufacturers of this equipment must make their estimates up for several months ahead in order to have all the scarce materials they need available at the time when needed. Further, they know how obsolescence has developed during the war years, and they can figure with reasonable accuracy what the replacement requirements on these various motor vehicles will be. Since we know that every car takes four tires, and a spare if it is available, and we know about how many trucks take six tires, all we have to do is a little elementary arithmetic and we have a pretty fair idea of how many tires will be needed by the manufacturers.

Forecasting with meagre data. As contrast to what is a reasonably simple task of forecasting, because good statistics are available, I might mention another experience. We recently took on distribution arrangements for a certain make of gasoline car heater in Canada and we had to estimate how many we could market. We had to know this in order to set up the quantities we would take from the manufacturer, and since quite a lot of money would be tied up, we had to work it out very carefully.

We had the registration statistics to start with. We knew about how many hot-water car heaters were being sold annually and under normal conditions, so we worked out a figure which we thought was reasonably satisfactory as an initial projection. We kept on studying this situation and as we obtained further information from the field, we found demand for this heater beyond anything we imagined. For instance, we only visualized the heater going into automobiles for the comfort of the driver and his passengers. We did visualize a few in trucks but we had no idea that many of the big fleet operators would be eagerly awaiting the opportunity to secure them. Then imagine our surprise when we ran into a milk
wagon driver and happened to talk to him about it, and he reported that his boss wanted to know if he could get enough of them to equip his milk wagons. It seems that they have to keep the milk warm in winter so it will not freeze; all they have been able to do is to use a coal-oil lantern or stove, and they think they might be interested in having this car heater installed. With it, all they need to have is a little can of gasoline and a battery to operate the little electric motor and pump; then they are ready to go.

This made us stop and think and wonder how many people might want to get heaters for winter cottages or summer cottages, or for supplementary heat for boats or cabin trailers, and perhaps for a lot of services we have not started to think of yet. We knew they were used as airplane engine warmers in the Army, and also for Quonset huts, but we never could stretch our imagination enough to visualize them being sold for all the milk wagons in the country. That is where estimating can go wrong, but fortunately in this case the error was on the conservative side.

A word should be said here about the sources of information to which one may go when dealing with an industry which does not collect its own statistics, or with a new development of some kind. It may be necessary to work with rather scanty and unreliable information but one can, at least, gather together such information as is available. For instance, the manufacturers of electrical equipment depend upon information regarding the number of wired houses, and estimate how much each householder might use. If you do not know what the production capacity of your industry is, perhaps you might find some enlightening information from the Dominion Bureau of Statistics by analyzing the amount of capital invested in the industry, the number of workers employed, the average salaries paid, the consumption of specific materials, and from your own knowledge in your own business be able to translate those into terms of production capacities. Thus if we did not have information regarding tire unit sales we could get some information or data regarding tire yarn consumption and that, on averages, would give us a figure which would not be too far away from the facts. Advertising agencies, newspapers, and magazines often make surveys to determine trade trends and consumer preferences, and these too can be drawn upon.

The best of statistical data may be misleading. In a period like the present, actual orders on the books mean little. An effort was made recently by certain electrical manufacturers to determine how much of their back-order list was fictional, and how many of the orders could be cashed in when they had merchandise to deliver. They picked out a fairly prosperous average-sized town and flooded it with merchandise to see how much it really would absorb. Of course they found out just what would be expected. A great many orders turned out to be will-o'-the-wisps.

A wartime survey in Kitchener indicated that each family would need to buy $\$ 3,000$ worth of durable goods in various household requirements and equipment when the war was over. On a commonsense basis any of us would know that there are not many families in Kitchener who can spend $\$ 3,000$, or would want to spend that much within a few months' time. They may take four, five, or six years to do it.

Let me make this point in summarizing the subject of Forecasting. First, make up your mind it can be done, then study all the information you can get about your industry. Then get information about economic trends, vital statistics, study the Canada Year Book, write to Ottawa or provincial governments for types of information you would like to secure, and check with your advertising agency or your service agency regarding statistics on special reports they may have. One good lead will take you to another and as you go deeper and deeper into the subject you will get more and more information which will enable you to do a better job. As you go ahead in this way you will begin to find out where you were wrong, where to look for the information you need, and become a better predictor of sales volumes all the time. It is not a job that can be done by spending half a day once a ycar on it; you have to spend time, thought, and effort on it, get all the figures available you can, and then keep on doing it by correction of your forecast at least once every month to know where you are going and why.

Preparing a budget. With our sales forecast set up as best we can work it out, we know how much dollar volume to expect. With the knowledge of the buying price on this merchandise, or the average mark-up, or with knowledge of the differential between the
manufacturing cost and the selling price, we know about how much gross profit is going to be produced by that sales volume. To put it in simple terms, let us say that there will be a 25 per cent margin of profit left after all deductions have been made.

Then what does it cost to run the business? Maybe this type of business can be run at 15 per cent, or let us say 20 per cent, because that is reasonably low in most businesses. If that is true, then perhaps all we can expect is a 5 per cent profit. So we set aside that 5 per cent profit and we take the rest of the money and start to break it down into the various operating costs. For instance, in our wholesale division we separate salaries, travelling expenses, rent, depreciation, delivery expense, postage, stationery, miscellaneous maintenance and repairs, shipping and warehousing costs, and miscellaneous office salaries and expenses.

A detailed list of personnel is set up with estimated expenses for salaries and any necessary travel. We know from past experience about how much the standard items like postage and stationery should be; delivery expense is calculated on a basis of per cent of dollar sales volume; telephone expense, except long distance, is known by the standard cost of the trunk lines in the office, and long distance is estimated, and so we go down through all the different expenses and list what we know we must spend, including any necessary new additions during the current year. In this way we make a detailed analysis of our probable costs of doing business during the year by different divisions. This sounds mighty intricate but it really is not; it is just a job that takes time and careful attention.

After we estimate the branch expense, we work out the head office expense, including advertising allowances, and we arrive at a total cost of doing business. If our cost of doing business is too high we have to go back and look it over and sce where we can pull it down. Or if it seems too low we have to look it over and see whether we overlooked something or have not planned for sufficient sales effort to sell the volume of merchandise available and the potential we are out to secure.

What is left over is the profit and, of course, then we have to go back over and balance the whole thing. We must determine by inspection whether our sales projection seems sound in the light
of our further studies of profits and costs, whether or not we can operate properly within the cost we have set up, have adequate staff and organization, location, service, etc., for our trade, and then whether the profit that results is reasonable. Sometimes we have to do quite a balancing job among those three things in various ways-increasing or decreasing sales, increasing or decreasing profit margins based on careful studies if they seem out of balance, and perhaps increasing or decreasing projected costs.

Using the budget. Having made these budget estimates, we must break them down by months, and as the year progresses, we must get statements showing budgeted and actual expense for each month in various brackets, and watch our expenses and sales to see to it that we maintain the rates at which we have set up our projections. We know that if we sell a certain volume of goods monthly, our profit margins stay the same, and our costs stay within the brackets we have set out, that we will come out at the end of the year with approximately the amount of profit which was projected. Remember, after all, we are aiming at the target of profit; we set up what we expect to do and then we must keep on aiming to reach that target.

By using our budget, we know the minute anything starts to go wrong. If sales start to fall off or costs start to go above our budget we know we have to do something about it right away. We do not have to wait until six months have gone by or the year is past and then find out that we did a poor job in spite of all our planning. We know from day to day whether or not we are on the right course and whether or not, therefore, we are going to reach the objectives we set. Of course, unusual things sometimes happen and we have to depart in some manner from our plan, but at least we know what we are doing and we are planning in advance rather than finding out after it is too late to do anything about it.

The budget also encourages thinking in the organization on subjects like economy of operation. For instance, not long ago we began to discover that our cost of warehousing through certain dealer organizations was getting entirely out of hand. As dollar volumes went up beyond anything we had ever experienced, the
rates which we had been paying on relatively small volume became excessive. Consequently, we worked out an entirely new programme based upon reducing costs as volume increased so that over-all payment for the service was still good; then we went out to our dealers who had those warehousing plans across the country and were able to readjust our warehousing costs. These adjustments were necessary because warehousing commissions for handling our merchandise had reached the point in dollars which exceeded what we could do it for with our own direct outlets and we had to bring the cost into line with a direct operation.

The same kind of reasoning has to be used on expenses of salesmen. For instance, owing to the larger dollar volumes obtaincd in the last year, we could very easily adopt a policy of increasing the number of salesmen on the basis of a certain annual dollar volume. There was a time when $\$ 150,000$ volume a year for a tire salesman was a pretty substantial volume and we could operate on a cost of around 3 per cent or less. However, as these volumes ran up to $\$ 250,000$ or $\$ 300,000$ for a man, it was no longer necessary to think in terms of so high a sales cost. Our percentages began to come down to anywhere from $11 / 2$ per cent to 2 or $21 / 4$ per cent. These reduced costs of selling helped to offset the rising costs of manufacture due to increases in labour rates and increased costs of materials.

As we go along from month to month we see variations from plan and we have opportunities to make adjustments. We continue to keep our costs in line with the percentages we can stand; we continue to inspect our manufacturing costs so that we know when we are getting out of line there. Consequently, in spite of all. the variations that occur during the period of a business year, we are able to make adjustments in the budget which enable us to stay pretty well on the course we have set, even though the figures with which we work may be, at the end of the year, quite different from those which we set out at the beginning of the year.

Budgeting for a retail store. Let me give an example in terms of a smaller business. We operate several retail stores as a part of our organization. Let us take a store in which we did about $\$ 80,000$ worth of business last year, with an operating cost of about 18 per
cent, of which about 11 to $11 / 2$ per cent was salary, and a gross profit of about 25 per cent. That left us a 7 per cent operating profit, and represents a good operation.

We now approach the setting up of a sales forecast for this year. We break the sales down by various items such as tires, batteries, accessories, petroleum products, miscellaneous merchandise, and arrive at approximate profit margins to pay the operating costs in the various divisions of the business and thus reach a total sales projection with a total gross profit in dollars. Because we expect a larger tire volume in 1947, with larger ranges of miscellancous merchandise to sell, and perhaps have a little better staff of employecs than we had immediately after the last war year, we think we can sell approximately $\$ 100,000$ worth of merchandise at about a $\$ 25,000$ profit.

However, in order to do that larger volume we may find that we have to fix up our store, and our depreciation is higher; we have to buy a new truck which puts depreciation up a little more, and probably when we get through with our total fixed and semifixed expense, which includes taxes, rents, licenses, depreciation of furniture, fixtures and equipment, repairs to buildings and equipment, light, heat and power, we find ourselves with a cost of about $31 / 2$ per cent of sales. Then we look over our salary expense and find we have to spend about 11 per cent to have the organization we want and pay the salaries we need to pay in order to keep our personnel at proper grade level and reasonably satisfied. In arriving at that salary information we have listed each employee, the salary he is getting, have provided for an increase where we think it is necessary, and totalled the entire amount so we know exactly what salary cost we will have in the year.

We have several other expenses, such as postage, telephone, and telegraph, service and drayage, freight and trucking, stationery and office supplies, stock room and shop supplies, and we find these are going to cost us a total of $21 / 2$ per cent. Then we set up about 1 per cent for advertising and $1 / 2$ per cent for reserve for bad debts, and we come out with $181 / 2$ per cent.

From the 25 per cent gross profit, we have a $61 / 2$ per cent net profit.

These projections are broken down monthly and set up in the form of a monthly budget. Operating statements are set up show-
ing actual sales by brackets against budget, actual profits attained against budget of profits, actual expenses against budget expenses, showing clearly where we are going right and where we are going wrong. For example, if we find our salary percentage running more than expected it may be due to the fact that our sales are down, or we may be adding temporary help which could be discontinued.

Further, we may find that profit margins are not coming through as well as anticipated and something must be done about that. Each month we have a running comparison against what we actually ought to be doing, from which we can take necessary action to bring those variations into line, if not with the original forecast, then with a new pattern to get approximatcly the same kind of results. We are interested in the budget only as a pattern to follow. Whether or not we follow it exactly is not so important, so long as we know we are following a pattern in which the target is profit. Therefore, if we must change the pattern in order to make a profit, we change it.

I remember a dealer who called us in when he found himself in trouble. He had been doing a volume of over $\$ 150,000$ a year, was considered to be quite a successful merchandiser and a very capable outlet. We were horrified to learn that he owed us $\$ 10,000$ which he could not pay, and further, he needed a $\$ 10,000$ loan to tide him over, and if he couldn't get it from us he would be bankrupt. We analysed his whole operation for the year which had just been completed and found that on a volume of approximately $\$ 150,000$ he had lost $\$ 18,000$. He had lost his entire net worth, and was in effect out of business, and he had lost about $\$ 10,000$ of our money besides. We set out to make up a budget of sales, profits, and allowable expenditures for him. We went over this for about half a day.

We arrived at this viewpoint. He still felt he could do $\$ 150,000$ volume. We knew he could make about the same gross profit he had been making which, as I recall, was around 30 per cent, so we had approximately about $\$ 45,000$ to spend for his operations and profits. Based upon standards of performance in the retail automotive supplies and petroleum business, we knew about how many people he ought to have. We knew he could afford to support in his business at that time about one person for every $\$ 15,000$ of annual sales volume, therefore we knew he had to operate his
business with ten people. He actually had in his employ at that time twenty-three people. When we pointed out that he did not need all these people and could run his busincss just as successfully with a smaller number, he said, "Yes, I know I can, but these people all have families, children, and homes to maintain. If I let them go I don't think they can get other jobs and they'll be up against it and practically starve to death."

Our reply, obviously, was "You have now reached the point where you must make the choice whether a few of you leave the business and take the chance of difficulty, or whether the whole group of you leave the business. You will have to make your choice and operate your business with the personnel you can afford, or close the doors entirely."

Of course there was no alternative for him, so he called his staff in and told them what the problems were, picked out the ten men who were essential in continuing the operation, and let the other thirtcen people go. Of course, they were horrified at first, but they found jobs before very long, even though times were not so good, and the business carried on successfully, with the result that instead of doing $\$ 150,000$ he did nearly $\$ 200,000$ and was able to increase his staff to some extent. He broke even in a very tough year, he started to make money the next year, and ever since then he has been one of the most outstanding and successful merchandisers we know in our business. The greatest thrill I get out of it is that whenever I visit that man's place he gets out a big sheet, much like that on which we made the projection of sales volume, profit, and cost, on which he has his current yearly budget and monthly estimates made out, and shows me the progress he is making and how close he is coming to his forecasts. That man's success and salvation was proper forecasting and careful budgeting, by which he ultimately made a permanent and profitable place for himself in business.

In summary, forecast to know where you are going, then check continually to keep on course. It is not a job that can be done once and for all time and then forgotten. It is a vital, live job and if you are to be successful you must live with it every day.

## 5. CONSUMER OPINION

## AS A MANAGEMENT GUIDE

Howard A. Trumbull

IBELIEVE that market and consumer research is the very foundation of business today, the corner-stone on which all business will rely for many years in the future. For years there has been little if any question in the minds of busincss management as to the importance, the vital necessity, of product research. There has existed no question as to the value of scientific research. But, unfortunately, the importance of market and consumer research and the things that this research can contribute in the building and the successful conduct of businesses have not been fully recognized by management.

To me, the people engaged in the distribution fields must rank well up near the top of the ladder in the requisites that are demanded of top-rung power in industry. Salesmen must be willing to give everything to their job in the way of hard work. I think a salesman has to be exceptionally intelligent if he is going to compete successfully in today's markets and above all, I believe salesmanship and particularly sales managership requires endless planning.

What are we faced with right now? Please don't misunderstand me; I am not hanging crêpc. Perhaps I will veer a little to the extreme because I would like to come back to a happy medium, but I, personally, look for the strongest kind of competition in the distribution of merchandise for the next few years. Let us not be too optimistic in assuming that there is a huge pent-up unsatisfied and perhaps unsatisfiable desire for merchandise. In appraising this demand, let us recognize several very definite facts. The world has just started on the road to recovery from the recent war, the greatest upheaval that business has ever experienced.

Now what did that war do to us? To you? To other businesses? In the first place there were many, many marriages. In the United States alone there were some eleven million during the period of participation in the war. In a very real sense, there was not one of those marriages which was a normal marriage. Ponder that for a moment. Married as the boy was going into the Service -they were not privileged to indulge in a normal marital existence. Married and both working-perhaps in defence plants, and so forth. And certainly applicable to cevery war marriage was the fact that the maldistribution of merchandise did not permit that new bride to go out on a free market and make a free competitive selection of merchandise. Because of the war all women throughout the world gained new experiences in buying of merchandise. In the United States and Canada women had two kinds of money, and they valued the war money (ration stamps) more than they did their currency in the selection of merchandise. It is an accepted fact that consumers generally traded up on quality during the war if the quality was available, because they prized the ration stamps and they wanted to get the best quality for their stamps.

The wartime birth-rate was substantially higher than normal. It is already noticeable that a bulge of new population is coming into the market. Last September, when school reconvened, the papers were telling us that there were not enough first grade facilities for this new group of children. This bulge in birth-rate will be traceable right on through for the next. twenty or twenty-five years, in the form of a greater and better educated potential market. Think also of the relatively high percentage of the women of the country who enrolled and participated actively in various nutritional courses during the war. They are better customers, because an educated consumer is always a better customer.

As an aftermath of the war there are many industries that tooled up during the war and bought or built new plants to produce war materials. The owners will try to keep those plants busy, even though it may mean invading new fields, completely foreign to their former peacetime endeavours. A striking example is found in the electric appliance industry, which scores of manufacturers have entered for the first time. Certainly there is a saturation point with durable merchandise of this type. It is obvious that the

## CONSUMER OPINION AS A MANAGEMENT GUIDE

average person will not equip every room in the house with an electric iron, a toaster, fan, etc. What is going to happen in these lines as the saturation point is reached? In this connection one must consider not only the number of manufacturers but also the number of outlets. The number of retail dealers offering electrical goods has increased substantially, certainly to a point which promises trouble ahead if we go into a recession.

## Purpose of Consumer Research

Many of the uncertainties in setting potentials can be eliminated by careful market and consumer research. Intelligent sales planning is inseparable from rescarch of the most painstaking kind. It is because of these convictions that I say that selling and distribution demands such high calibre people.

To my mind, consumer research is the most challenging of all market rescarch. I consider it much more difficult to reach an accurate answer in consumer research than in sales analysis or even in product research, because in consumer rescarch we are dealing with human emotion and reactions, and these we know to be subject to change. The only permanent thing about consumers is the permanence of change. There is nothing we can predict for any great span of the future, except that consumer preferences are always susceptible to change. Think of the changes that have been brought about in the span of our own lives, the changes in your demands from one day to the next. Successful selling depends on studying present demands, and trying to anticipate and apply these changes to one's own business, if a maximum return on investment is to be obtained.

Almost every kind of business, from the corner grocery man right on up, needs consumer research. The larger, the more farflung its distribution, the more it needs consumer research, because the policy-making group is further removed from the customer. Certainly the corner grocer is in a much better position, meeting his customers day after day over the counter, to ascertain from these customers what they want in the way of products and services than is the manufacturer or packer with a national distribution. However, the grocer's answers may be misleading because his only contact is with the restricted sample represented by his own customers.

Certainly the facts he will obtain from them are important; however, it is important for him to know why other people do not trade with him, and he has no access to these people when he limits his research to his own grocery store, so he is missing a very big segment of the benefit research might produce for him.

Another fundamental principle, in which I firmly believe, is that the business of the future, to compete successfully, must be so organized as to deliver its product and services in the straightest possible line to the ultimate consumer.

A friend of mine, a man whom I admire greatly, gave a talk at the University of Toronto in 1946 entitled "Does Distribution Cost Too Much?". ${ }^{1}$ I thought he answered the question correctly and completcly, and I do not imply any contradiction of what he said, when I maintain that if we are going into a competitive situation, competition is bound to resolve itself into pressure on prices. So, to compete more effectively, we try to cut corners in cost and attain a more attractive selling price. Conditions today and for the foresecable future make the possibility of obtaining any very sizable savings in manufacturing costs very questionable. If there do exist any ficlds for savings the biggest potential is in distribution costs. I don't mean that the costs are too high, but I do think the possibility for savings is larger there than in manufacturing. In other words, I think that business must avail itself of every possible means of accomplishing a straight-line distribution, devoid of all extraneous functions and extraneous costs. Market research can appraise the markets. It can foretell with a substantial degree of accuracy what that market will require. It is not, however, infallible. There are many factors affecting potentials that are most difficult to evaluate by even the most exhaustive and painstaking research projects.

## An Example of Inadequate Research

I would like to cite an example to bring out that point. We became a cigarette-smoking nation after the First World War, a cigarette-smoking world, in fact. One of the results of this change was a decline in cigar sales. The cigar industry wanted to try to
${ }^{1}$ See Don Francisco, "Does Distribution Cost Too Much?" (The Commerce Journal, University of Toronto, March, 1947). Also printed in pamphlet form by the J. Walter Thompson Co., New York City.
rebuild their volume. When cellophane came on the market, they were quick to wrap their cigars in individual wrappings of cellophane, principally for the reason that it helped to protect the humidity or moisture content of the tobacco. The cigar industry, however, had never, to our knowledge, done any market rescarch on the proper moisture content in cigars for greatest consumer satisfaction. They knew that if the tobacco was too dry it would be harsh, and if it was too moist it would be soggy and not a good smoke, but they did not know just what it should be.

Recognizing the success cellophane had made in the cigar field, other manufacturers of packaging materials were anxious to get some of this volume for their own product. Another wrapper came on the market, a non-transparent one, that could be sealed air-tight and keep the moisture content indefinitely at the same level as when it left the plant. They launched national advertising on this theme, but it fell flat on its face. Why? Because of one of those unpredictable human elements, cigar smokers, it turned out, buy partly by colour and demand to see the colour of the cigar when they buy.

I was in the glass business at the time. We were intrigued by the possibilities in this market. Our package, being transparent, showed the colour. It could be resealed and protect the humidity. We had machines capable of making large containers. We were enthusiastically convinced that this was an ideal market for us. To confirm these impressions we conducted what we considered one of the most painstaking, the most far-reaching, research jobs that the cigar industry had ever had. We sent glass tubes, similar to those used for Alka Seltzer tablets, to our salesmen all over our country. These tubes had tight-sealing caps, so as to maintain the moisture. These hundreds of men bought cigars from every type of retailer, sealed them in individual bottles, labelled them as to type of retailer and mailed them to our laboratory.

We received hundreds of cigars in this way. We then made tests to check the variation in the humidity of the cigars purchased in New Orleans as compared with those from Duluth or Fresno. We also checked differences in moisture as found between the cigars purchased in corner grocery stores, the hotel counters, the drug stores, and so forth. Every cigar was tested in the laboratory. We
found out what the average moisture content was and found how it varied from one outlet to another, and how it varied from one city to another. Then we prepared additional cigars in humidor rooms, put samples with the various known moisture contents in separate containers, and distributed those to cigar smokers to establish from them what we called the proper humid zone. After establishing this, we contacted a cigar manufacturer and persuaded him to try our idea of a containcr, a glass jar to hold fifty cigars, standing on end, with a large diameter and a resealable lid, to keep the ideal moisture content perfect. The cigar manufacturers recommended a test market. We went into that market and the sales of this brand skyrocketed. We were spurred on by this experience and used this success story to solicit additional business. We even went to the point of perfecting a machine for packing the cigars in glass jars as fast as they could be packed in wooden boxes.

When this glass package was introduced in other markets it flopped. Again we ran into human reactions, something we could not anticipate. The test market, which was selected because of the cigar manufacturer's recommendation, had been educated by years of experience to buy cigars out of a tin can in which they stood on end; the customer would reach in and pull them out. In other markets the cigar smokers insisted on scooping the cigars out of a flat box instead of reaching into a restricted opening.

I believe that our research was thorough and extensive, yet our experience proved it was not extensive enough.

## Examples of Successful Product Testing

In citing our experience with cigars, and the two examples which follow, I am simply trying to raise a yellow flag of caution against accepting survey results too quickly, or stopping research too soon. My second example is a manufacturer who anticipated quite a volume of business in the French Dressing field. He compounded what was later to be known as a multiple-use French Dressing. It combined seven or eight spices and could be used either as a base for a French Dressing, or for making catsup at home. It had several other uses in cooking. We conducted what we thought was a very adequate research job for this packer, by sending samples of the product to a cross-section of home-makers,
and from the response we ascertained whether they used French Dressing, what brand they used, how often, and why they used it, and so forth. I thought that it was a very thorough research job. The opinions that came back were very gratifying. Approximately 80 per cent of the people interviewed said that they liked the product. Seventy per cent said they would buy it, and told how much they would pay for it, which was in line with the cost of production and distribution.

In our analysis to the client we gave special emphasis to the fact that he should not accept these findings too literally, and build his sales programme against them alone, because there were so many factors that could throw our findings out of line. These factors are beyond the control of a research job. First and obviously, the people interviewed had an opportunity to use a sample of the product in their home. Consequently, their expression as to whether they would buy it or not was made after they had tried it. Second, the packer didn't know, nor did we, what reception the product would get from retailers; for example, what display it would get. It was impossible without a store check to know what percentage of women would buy it in the store.

We recommended that he divide the number of women who said they would buy the product by three, and we thought that he could reasonably count on that kind of a reception. He put the product on the market, and his acceptance was a little less than the third that we had suggested. I point this out to illustrate why in many cases one must temper his acceptance of the results of a research job by a full consideration of all the factors that could influence the final result.

My third illustration is an assignment we did for one of the largest manufacturers of hair tonic. He was deprived by the war of a very important ingredient in his product. He was faced with a vital decision. Should he withdraw his product from the market or should he attempt to keep his brand on the market with a radically new product, the ingredients for which were available in quantity? He did not know the duration of the war. He did not know how long he would have to be off the market. His policy had been never to give national advertising to a product until it enjoyed a very representative national distribution.

We talked with him for some time. He had less than three hundred ounces of the new product, which had been made in the laboratory. Certainly this limited amount of the new formula would not permit making a proper cross-sectional consumer test because of the inadequacy of the sample. But we had no alternative. He bottled the three hundred ounces in one-ounce bottles and we sent them out to as good a cross-section as we could select with this limited number.

The tabulated returns showed a 78 per cent preference for the new product, which was radically different in feel, in texture, and in appearance from any other hair tonic ever on the market. Encouraged by these findings he decided to introduce the new product. To check reactions further he enclosed a return card, asking similar questions, with the first ten thousand bottles sold. These cards showed an 82 per cent preference. Experience has since confirmed these findings, because the new product has never been out of first or second place in volume.

## Building a Consumer Panel

In our research organization, we start with the first premise that the validity of a result can only be as good as the representativeness of the sample interviewed. The second premise involves the use of the direct mail technique and the consumer panel. No one method of rescarch is absolutely final or infallible for all types of jobs. I believe that the individual requirements of the contemplated study should dictate the method best suited to the needs. From experience, I lean very heavily toward direct mail panel research as the best method for most product testing and certain types of use, habit, or opinion research, and it is these types of work which we do in our organization.

The building of a panel requires a great deal of careful planning and a great many checks and re-checks. First, we use four control factors, and we know that if we get these four factors in balance everything else about these families will be typical. The first control factor is géographical location. People living in New England are very apt to have different expectations or demands for a product from people in Texas or California or Georgia. So we divide the country into nine areas. Second, within each area we break the
population down as to distribution by density; in other words, as to rural and city dwellers, because distribution within certain areas is quite different from national averages.

The third control factor we use is the home-maker's age. We divide ages into five groups, because the young woman just starting to keep house, starting a family and so on, has different expectations, different demands, different desires for the products she buys from those of the older women. The fourth classification is annual family income, and for this factor we use five classifications.

We use a series of four-digit numbers as a code for sorting and selection. Those four-digit numbers on our tabulating cards tell us all about that person as to how she fits our pattern.

We mail a very simple letter, and an application form for membership in the panel, to carefully selected lists of women. Our application for membership contains a lot of questions. For instance, we find out the education of the housewife, the education of the husband, the age of both husband and wife, the number of children, and the sex of the children, and their ages. We ask how much they spend for food each month, how much they spend for entertainment, the year and make of automobile they have, whether they bought it new or used, we find out the electrical equipment they have. Their military service is another thing we think is important, and there are more than one hundred other questions.

When all of these answers are punched on our cards, we are in a position to start selecting a panel. It requires a thousand families to make a panel and this group must duplicate the census averages or that panel is not a true and representative sample. In addition to balancing on our control factors, we also check averages against the other information we have compiled.

Before we started, we wondered what sort of return we would receive on this application, which each and every prospective consultant must fill out completely. The application covers two pages, $81 / 2 \times 11$ inches, printed solid with 8-point type, so it is not a simple job to complete. The opening paragraph of the letter that accompanies our application reads something like this, "How many times have you said to yourself, 'I would like to tell the manufacturers of the products I buy and use what I think'?-These manufacturers would like to know what you think about their products. They
want your help. They value your views"-and so on. We tell these prospective consultants if they will fill out this application, and if they fit into a panel, they will receive free merchandise to test. We assure them all that the information they supply individually will be used only to compile averages and they will not be asked to buy anything.

We have received a little better than 20 per cent returns on each mailing of this original application. From the first fifteen thousand returned it was impossible to build a single panel of one thousand. We had to mail to specially selected lists in specific areas to obtain necessary families to fill in our pattern. After almost a year's work we have succeeded in building only threc panels of a thousand families each. These three pancls are identical, made on the same pattern. A panel of one thousand may be inadequate for some jobs, and we merely pyramid the panels when we need more coverage. If we want coverage in one area, one income group, or one age class, we lift those segments from each of the three panels. We are building more panels and will have at least ten in the near future.

## Using and Maintaining the Panel

Keeping the panels up to date is a job which requires constant attention. We have experienced a turnover of about 20 per cent a year, due to moving, not returning questionnaires, changes in income and age brackets, and so forth. We anticipate this will go a little higher with our meticulous selection of names. We think that this turnover will be sufficient to avoid any difficulties from kecping the same people on the panels for too long a period, when taken in conjunction with three other safeguards. First, we do not overwork our panels. We do not send a survey to any of the consultants more frequently than every thirty days and we try to use each pancl at least every six weeks.

Second, we never send a similar class of product to the same panel in consecutive tests. To illustrate, this month, Panel No. 3 may get a hair tonic which is strictly a man's product. Next month we will not send that panel a hand lotion or anything, even though a female product, that we consider to be in the same class, because there may be a carry-over of thinking. The third safeguard is the
length of our questionnaires. By using a longer questionnaire, we are able to conceal the real reason for making the study, and minimize any tendency to give the answers the respondent thinks we want.

The matter of payment of panel members must be considered. We do not pay our people. Our past experience has been that if we offer them nothing and send them gifts about three times a year, in addition to the merchandise they test, they art kept quite happy. A buying-diary panel would be an entirely different proposition because there would be a daily obligation, and I do not see how you could run one without some kind of pay.

In our case, it is not the cost of the gift we send but the uniqueness. For instance, one of the most popular gifts we ever got out cost six cents, including postage and packing. It was a cover for ration books. Women had an awful time with those books, and we got this cover out before there were many on the market. The women went to the store, brought out their ration books in the covers, and their neighbours and the grocery clerks asked where they got the nice book cover. We all like to be exclusive, and so this was the most popular gift we ever sent out.

That, in brief, is the way a consumer pancl is designed, built, and operated, and we feel that it can be a very important guide to marketing management. I began by referring to research as the "corner-stone" of business. Perhaps it could better be described as the bell buoy of modern business. I think the competitive seas of the future are going to be well churned; I think it is going to be a rather difficult task to chart a course through those seas to the sales objective, and I believe that consumer research in the hands of well-trained research people is going to chart that course and steer people away from the rocks that can be so disastrous to any voyage.

## 6. COST REDUCTION THROUGH SALES ANALYSIS

Richard D. Crisp

DISTRIBUTION costs present every sales executive with a challenge and an opportunity. The challenge reflects the magnitude of those costs, which account for a large and frequently increasing proportion of total expenses. The opportunity exists because marketing costs are inherently reducible.

The day when management could ignore the challenging opportunity presented by its own distribution costs is just about over. There is a growing realization among management people that their problems with roofs and ceilings did not end with the decontrol of their products. "Elasticity of demand" is no longer just a phrase from a half-remembered text-book. Each of us must be constantly alert to the danger that even a slight increase in our prices, when pyramided by wholesale and retail mark-up, may sharply reduce the size of our market and project us into a sea of red ink.

For the alarming fact is that today red ink is nearer than we think. Profits are being squeezed between the rising floor of production costs and the relatively inelastic roof of selling prices. But profits are not alone in that constricted and still contracting space. Distribution costs are between the jaws of the vise, too. All of us in marketing are again in our customary position, "in the middle." If there is to be any breathing space for profits tomorrow, we must reduce our distribution costs today!

Management must share its distribution cost experience. Progress toward lower distribution costs has been retarded by the man-
*Adapted, by permission of the author and publishers, from "A Program for Reducing Distribution Costs," in Cost Reduction for Sales Management, Marketing Series No. 70, American Management Association, New York, 1947.
agement attitude that shrouds in corporate sccrecy all experience of this type. As a result of that attitude, there is little information available today which can be used as a guide in a practical programme of distribution cost reduction.

Until the experiences of individual companies in bringing their own marketing costs under control are shared unselfishly, for the benefit of the entire business community, progress will remain unnecessarily slow. Before distribution cost analysis and control can be reduced to a basic management skill, we must develop a pool of experience with different approaches and their results, which can be studied objectively. It is as a contribution to such a pool, in a spirit of friendly helpfulncss, and without pretense to expert status, that this case study is presented.

The need is for a positive, constructive approach. There arc two approaches to the reduction of distribution costs. One approach is to ask, "What can wc eliminate-do without-do more cheaply?" That is the destructive approach. In my opinion, the path to lower distribution costs takes another direction. Distribution costs do not exist in a vacuum. They reflect, and are a function of, the sales effectivencss of the entire markcting operation. The approach to distribution cost reduction which pays the largest return is the approach which concentrates on positive increases in sales effectiveness.

When you learn how to get more volume from a sales force of the same size, more sales from a sub-par territory with no increase in sales expense, or a larger average order size through sales training, you are taking a positive step toward lower distribution costs.

This positive, constructive approach leaves your selling machine running smoothly, on a higher level of efficiency, with morale unimpaired, ready for the greater loads which intensified competition is certain to place on it.

Elements of a practical programme. There is no magic formula for distribution cost reduction, and no such formula is needed. You can begin a practical programme with nothing more complicated than these simple steps:

1. Break down your own distribution costs into as many elements as existing records will permit.
2. Subdivide every element, to establish variations by products,
by types or sizes of customers, by sales territories or districts, etc.
3. Study those variations, and try to arrive at the facts behind them.
4. Eliminate or reduce all variations which are not a reflection of actual and necessary physical differences in your operating methods, number and types of customers in the territory, etc.
5. Arrive at standards on every element, and control to those standards.

## A Check-List of "Reducibles"

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"Distribution costs" is an omnibus term which covers such dissimilar items as freight, warehouse rent, and the lunch your salesman buys for a customer. Each element of the distribution cost complex represents an individual problem, and requires individual study; but almost every element can be reduced by the same basic approach.

Here is a check-list of points at which most companies will find their own distribution costs particularly vulnerable.

1. Tailor your products to fit the market. A sound first step in reducing your distribution costs is a recognition of the fact that it is easier and cheaper to sell what people want to buy than to persuade them to buy a product just because you want to sell it.

A knowledge of which product characteristics consumers consider important, and an objective rating of your product on those points by consumers, can help your technical research people develop the kind of product people want to buy.
2. Prune your product line. It scems to be easier to add a new product to a line than to discontinue an old one. Many manufacturers today sell a number of "duds" which represent a small share of net sales, and-if the true cost of selling them were only known -make a purely negative contribution to net profit.

By taking the axe to such products, you can simplify your salesman's job, and open a path to greater sales through concentration of effort. Your sales training job will be easier. Production will profit from elimination of short runs. You may eliminate the need for special machinery, or special packaging requirements

Chart 1 shows in profile the importance of 24 products included in our line just a few years ago. The top three bars have been masked to avoid disclosure, and to permit a scale which would make the smaller products visible. As we enter a period of highly competitive selling, we have a line which includes ten fewer products. The check marks identify the eliminations. The ten products eliminated accounted for 3 per cent of net sales in the year charted.


Chart 1. Relative Contribution of 23 Products to Net Sales

Note that we did not eliminate Product S, although we did eliminate five products with greater volume in the base year. Present volume is only one of the factors to consider before you discontinue a product. The potential of the market is a much more important factor than the present level of your sales. Even highpotential products should be considered for elimination, however, if they do not fit your line or your sales methods. Many a company has broken its neck stretching for the greener grass on the other side of the fence.
3. Bury dead sizes and varieties. Opportunities to simplify your line are not confined to the product level. You can make further savings by eliminating all sizes and varieties of each product which are not absolutely necessary.

Chart 2 shows what we found when we broke downour volume on three products to show the contribution which each package size made to the product total. The products were available before the war in nine, eight, and seven sizes, respectively. After careful study of the requirements of the market, we discontinued six out of nine sizes on one product, four out of eight on another and three out of seven on the third.


Chart 2. Sales Division of Three Products by Pagkage Size
4. Check your estimate of market potential. We all know that sales volume today in most lines is tremendously greater than it was before the war. It is important to remember, however, that not all products have expanded at the same rate. You may feel that your own sales give you a pretty fair idea of the relative size of the market for different products. Believe me, you don't know until you measure industry volume at current levels.

When we looked at our own sales volume on two products, we found that with Product A sales as 100, Product B represented only 17 or about one-sixth of Product A volume. When we measured industry volume, we found that Product B was not one-sixth of A, but was more than double Product A in present volume. Our estimate from our own records involved a slight error of nearly 1400 per cent!

The effect of such an error on your distribution costs can be great. We had a much larger share of the market on Product A, and it was, therefore, more difficult for us to ring up additional
gains at the expense of competition. On Product B, however, we had been "missing the boat." Expansion of that product's sales was relatively easy to accomplish, with very low sales costs.
5. Beware of sales to the pipeline. When you secure an estimate of industry volume in which you have confidence, you will naturally be tempted to compare your own sales with industry volume in order to arrive at an estimate of your share of the market. If yours is a consumer product, let me caution you against yielding to that temptation. On consumer products, it is not the total of all manufacturers', but the total of all consumer purchases which is significant. Today the two figures may be poles apart.

There is a long pipeline from the factory shipping platform to the consumer's pantry. During the war, that pipeline was drained in many industries. For the last year or so, manufacturers have been refilling it as fast as material and container shortages permit.

Your sales can be increasing at a time when consumer purchases in your industry are declining sharply. That difference between


## Chart 3. Factory Shipments to Two Sections as a Pergentage of Consumer Purchases

 Each Section's Quarterly Consumer Purchases $=100$what you push in at one end of the pipeline and what consumers take out of the other end is a matter of vital concern today. There are two techniques which provide a continuing picture of consumer purchases. One is the store-audit technique; the other is the con-sumer-panel.
6. Relate sectional shipments to consumer purchases. The national picture on the level of the pipeline is important. Our
experience indicates that a sectional picture of the same thing may be even more important.

Chart 3 shows our shipments to two sections in six quarterly periods. In each case the section's consumer purchases for the quarter are 100. We shipped more merchandise to Section A in all but one of the six quarters, and the undershipment was not serious in that quarter. In one quarter we shipped nearly four times the amount purchased by consumers. In Section B, by contrast, we undershipped in two quarters, and never overshipped by very much. Over this 18 -month period, our shipments to Section A exceeded consumer purchases by 54 per cent while we shipped 3 per cent less merchandise to Section B than consumers purchased!
7. Review consumer preferences by package sizes and varieties. When you use research to measure current industry volume, it will be well to go a step further and determine how that volume is divided by package sizes and product types. When the factory gets out of step with the consumer, the results can be serious.


Chart 4. Keep Package-Size Proportions in Line Percentage Division of Total Gallonage by Package Size

We were shipping one of our products to the trade in the package-size division illustrated by the left-hand bar on Chart 4. Meanwhile, consumers were buying in the proportion illustrated on the centre bar. We were deliberately overshipping, to build up war-depleted trade stocks to normal. The addition to trade stocks is illustrated on the right-hand bar. Note that the increase in trade stocks was seriously out of balance. If we had not measured
and established this fact, we might still be shipping in the unbalanced ratio, and building a future headache of migraine proportions.
8. Measure sales costs by territories. The sales executive who seeks to establish even the most elementary relationships between his sales and the cost of making those sales faces a major obstacle in many companics. That obstacle is the lack of adequate records of selling costs. Consider territorial variations in selling costs. Do you know how great a variation exists today between your sales districts in the cost of making sales?

By relating salary and expenses of your salcsmen to the volume of your districts, you can get a rough picture of present variations on this point. We found a spread of nearly 90 per cent between our low-cost and high-cost districts.

When you know which districts are high and which are low, that knowledge alone is often enough to start pushing costs back into line. Any number of economies suddenly become possible when a district manager learns that the expenses under his control are so high that they are calling his district, and his stewardship in that district, to the attention of top management.
9. Crystallize sales responsibility. One of the first principles of sound organization is that authority and responsibility should be co-extensive. You can't hold a man responsible for conditions he cannot control. In the sales field, this principle becomes important in making territorial assignments, and in setting up sales records so that each salesman's contribution to the company's sales can be measured.
10. Find your sales soft spots. An accurate picture of the level of your sales performance in each of your districts is an essential prerequisite to practical distribution cost control. In the entire field of distribution cost analysis and control, I know of no single point of attack which offers a richer promise of increased profit through lower unit distribution costs than the simple and basic process of finding, diagnosing, and correcting your sales soft spots.

Your weakest and strongest sales districts have many things in common. You are paying the salary and expenses of one or more salesmen in both. Your advertising reaches both. But there is this major difference. You are getting anywhere from three to 20 times
the volume, from the same unit of potential, in one as you are in the other!
11. Develop a market index for each major product. To key your sales effort to the needs of the market, and to lower sales resistance by selling what people want to buy, a general index just is not precise enough. You need a specific market index for each major product.

To illustrate the need for such an index, we used research to find out how two types of wax polish vary in relative importance in two sections of the country. We learned that one type has about five times as large a share of the two-product total in one section as in the other. Until you know this pattern, you are not in a position to sell what people want to buy, where they want to buy it.
12. Check for product blind spots. The line of least resistance for salesmen is to sell the best-selling numbers in the line, and let the rest fall where they may. This tendency results in unbalanced sales patterns and lost sales volume.

With a market index on each major product, you can make a rather accurate estimate of the total market for each of your products in each district. You can then locate instances in which a district is "dropping the ball" on one or more products.
13. Initiate positive sales control. In many companies, the "sales control" machinery is pretty rusty. When you can sell everything you can make, it is easy to persuade yourself that sales control is an unnecessary expenditure of time and effort.

But while the sales control tools were collecting rust, we were operating in an expanding market. When industry volume jumps 50 per cent, it does not take much of a sales job to turn in a 15 or 20 per cent gain for an individual company. It is an unhappy thought, but at a not-too-distant date many sales managers are likely to be faced with the control job of locating their problem territories at a time when all or nearly all those territories show declines from year-ago levels.

We have a device we call the "performance index" or P.I. To the salesman, this device is simplicity itself. He gets a P.I. monthly on every product. If it is above 100 , he is doing at least as well as the company as a whole. If it is below 100 , he is lagging. He
knows it, and we know it. More important, this device shows us changes in the relative level of sales promptly.

When we first adopted this device, we had five low-performance districts, which we singled out as primary sales objectives. We used research to get a first-hand picture of the situation in those districts. We "poured it on" them. Chart 5 presents a two-year trend in those five districts. All of them improved their sales performance.


Chart 5. Two Years' Changes in Sales Performance in Five "Problem" Districts

These gains seem rather moderate. They drop into focus when you consider that they were accomplished at a time when the company volume was expanding sharply. Four of the five districts gained more than 100 per cent in sales within two years. The group average gain was 129 per cent.
14. Calculate sales yield per salesman. It is a relatively simple matter to divide your annual sales in a district by the number of salesmen it took you to produce that volume. We found a variation of from 67 to 149 per cent of the national average in the return we were receiving from each of our salesmen on a district-average basis.

When you compare this information with the picture of sales strength and sales cost, a pattern begins to emerge. You will find some districts in which your performance is high, your sales cost is high, and your sales yield per man is low. You are likely to find that you have overmanned those districts, and that your volume
there is, as a result, expensive volume. Similarly, you may find some low-performance districts where the sales-cost ratio is low and the sales yield per man is high. This suggests that you are seriously undermanned in such districts. Carrying this sales-yield ratio below the district level will help you pin down a problem situation into specific terms, by singling out the low-yield and high-yield men in each district.

This type of material must be interpreted with the greatest caution. There are important variations between territories in factors like the number and type of customers, strength of competition, and so on. It is entircly possible, although a little unlikely, that the low-yield man on the low-yield team may be just as good a salesman, and working just as hard, as the high-yield man on the high-yield team.
15. Measure your manpower requirements. The use of sales volume as a rough yardstick to the number of salesmen a territory requires is a familiar device to every sales manager. Where that yardstick is used, however, many inequalities are likely to develop. Some sales territorics will be "backbreakers," and will have high turnover. Others will be soft-touches, and will leave plenty of time for fishing and other recreation.

We have no objection to our salesmen going fishing, when their sales job is done, but we do want to be fair. We want every salesman to have the same opportunity for such recreation. Therefore, we set out to answer the question, "How many salesmen do they need, and where should they be located?" on an objective basis, with measurement instead of guesswork.

This job, which we called "sales coverage," is too long and involved to describe here. Our approach was to set up standards on the type of work we wanted our salesmen to do, and to arrive at time standards for different types of activity. Then, by counting the number of customers of each type in each territory, and establishing maximum call frequencies, we could summarize each area into so many man-days of work. This approach enabled us to measure our requirements by districts, and to keep some districts from overmanning while others were undermanned.
16. Develop the management viewpoint at district levels. In our sales operation, the district manager is a key man. He manages
his district, in accordance with established company policies. The sales success or failure we enjoy in a district depends to a great degree on his ability as a manager and leader of men.

Through a continuing process of job training, we help the district managers develop management skills. For example, in the sales coverage analysis just described, we did not tell the district manager how many salesmen he nceded in his district. Instead, we briefed him on the objectives of the sales coverage analysis, and handed him the ball. Following an cstablished pattern, which he could tailor to some extent to fit his district, he converted each of his areas into so many man-days of work, and then he told us how many he needed.

Similarly, the various sales control tools we use are tailored to the needs of our districts. This has involved a continuing process of educating our district managers in the uses of analytical material and of objective measurement as a management technique. Our reliance on facts and on measurement rather than quesstimate is percolating down through the line organization. The net result is a much more effective group of district managers.
17. Consider aptitude testing. Onc of the most controversial questions in the sales field is, "Arc aptitude tests for salesmen worthwhilc?"

We think they are. We have used such tests for several years. They are an important part, but only a part, of our hiring process. In hiring, they supplement executive judgment. When a supervisory sales job opens up, the aptitude tests of the candidates are reviewed with care. (Our tests are administered and interpretcd by a psychologist whom we retain as a consultant in this field.)

Aptitude tests contribute to lower distribution costs by helping you lower your salcsman turnover, but there is much work yet to be done. One of the missing links is our failure, as sales executives, to define "sales success" on an objective basis. Until we define it, it is not fair to ask the psychologists to predict it.
18. Upgrade your sales team. Sales management faces an increasingly difficult task in the months and years ahead. When the chips are down, and the competitive pressure mounts, the sales manager must produce-or else! To achieve his sales objectives, he will need the strongest sales team he can develop. Every sales
executive recognizes the existence of wide variations between salesmen in ability and performance. More often than not, however, the sales manager's evaluation of a salesman's ability rests on subjective rather than objective grounds. He is often influenced by his liking for the man, without recognizing that influence.

When you shift from the subjective judgment of the sales manager to objective mcasurement of a salesman's performance on many different yardsticks, many of the "stars" lose some of their glitter. Often you will find that unspectacular pluggers are doing a much better job. Here are five specific measurements which can be applied to salesmen's activities to help you arrive at an objective picture of each man's contribution to your sales progress.
(a) Number of calls daily.

One measurement of the amount of work a salesman is delivering each day is the number of calls he turns in. To illustrate variations on a district-average basis on this point, our top district average was 35 per cent higher than the median, while the bottom district's average was only 73 per cent of the median district.
(b) Sales batting average.

No salesman can secure an order on every call he makes. The salesman's batting average, or order-call ratio, provides an important indication of the kind of sales-training job you have done, and of the kind of sales-planning job the salesman is doing.

We report to each district manager monthly on the sales batting average of each of his salesmen. We also report on his district average, and tell him how that district average compares with the all-district average. To give you a picture of the variations we found on our first such breakdown, our mcdian district was batting .399 on one type of customer and .489 on another type. The high district's averages were .606 and .579 . The low district's averages were .233 and .282 . The top district in this case was producing from two to two and one-half times as many orders, from the same number of calls on the same type of customer, as the bottom district.

We think that the way you use this type of information is very important. We do not make an issue of a low ratio, or emphasize any one aspect of this type of analysis so that these measurements become ends in themselves. We interpret them as an indication
of how the district manager is managing his district, and as an aid to him in doing a better job.
(c) Orders per man-day.

The variation between our top and bottom districts in average orders per man-day was also extreme. The high district turned in 9.5 retail and .4 wholesale orders daily; the median district averaged 4.3 retail and 1.0 wholesale orders daily, while our lowest district averaged less than two retail orders daily and .6 wholesale orders. These figures are based on our first monthly analysis. Needless to say, they are now obsolete. The lowest district pushed its average up more than 80 per cent the second month-still not good, but much better.
(d) Average order size.

Counting noses on orders does not take into account variations in the average size of those orders. Our salesmen take three types of orders. One type is from a wholesaler. The second is from a small retailer, for shipment through a wholesaler. The third is from a large direct-buying retail account, such as a department store, etc.

To illustrate variations in the average size of the threc types of orders on a district-average basis, we found that with the median district's average as 100 in each case, the top districts averaged 89 per cent, 87 per cent and 222 per cent larger than the median in average order size. The low districts on this factor booked orders which averaged 60 per cent, 51 per cent and 84 per cent of the median district.
(e) Production per man-day.

Number of calls daily, sales batting average, average order sizeall these help us to measure sales performance. It is important to remember, however, that these are never ends in themselves. The objective of sales activity is sales volume produced-cases of merchandise sold per man-day. We found that our top district turned in nearly two and one-half times the sales, while the low district produced only 59 per cent of the sales of the median district.

You will recognize, as we do, that there are important variations between territories which "explain" part of this variation. The point which it is easy to overlook, however, is that a major portion
of the variation does not reflect any physical differences in the territories. By turning the spotlight of attention on the variations, we are providing a non-financial incentive, in the form of competition between units, to reduce the variations which now exist.
19. Deflate salesmen's expenses. Unless you have already put salesmen's expenses through the wringer to squeeze out wartime water, this single item may offer you a major and easily attainable saving.

During the war, our salesmen's expenses skyrocketed. The average per man hit a wartime peak about three times the prewar level. Recognizing the peacetime dangers of free-wheeling expenses, we started to push those expenses back toward normal as our sales job shifted back to a civilian basis. We made considerable progress through emphasis on the need for trimming unnecessary expenses. Then, this year, we applied our "measure and analyze" approach to salesmen's expenses. The result was a further reduction of 22 per cent in average expenses.
20. Question every "sacred cow." Distribution costs were inflated before the war by the cost of feeding a herd of "sacred cows," for example, co-operative advertising and demonstrators.

Devices of that type must be judged always on the basis of value-what they cost you, and what you get for that cost. Every company must arrive at its own decision on such questions. We had a large crew of demonstrators a few years back. Today we have none. We have serious doubts of our ability to use demonstrators legally, under the Robinson-Patman Act; we have even more scrious doubts of the value we receive for demonstrator expense.
21. Get a current picture of customer importance. There have been many changes in the relative importance of different types of retail outlets in the last few years. Every manufacturer must evaluate his present customers in terms of their current importance to him. The dangers of using obsolete conceptions are ever-present.

Seven types of customers which were important to us in 1939 are shown on Chart 6. Two of them are much more important today. The other five represent a smaller part of our total volume than they did in 1939. Several types of customers which were very unimportant in 1939 today are major factors.
22. Reconsider the wholesaler. Not too long ago, "Eliminate the middleman" had the popularity as a catch-phrase that "Distribution costs too much" has today. Many manufacturers took steps to eliminate one or more of the "middlemen" who separated them from their ultimate consumer.


Chart 6. Change in Reiative Importange of Seven Types of Customers

In analyzing your distribution costs, you will encounter a group of expenses which might be shifted to the wholesaler. Or, if you are selling through wholesalers now, the expenses and the functions might be re-assumed by the manufacturer. In dealing with such costs, it is most important to consider each cost in relation to the function performed.

During the war, our salesmen were drafted along with yours. To maintain our volume, we had to sell more merchandise to wholesalers. We had to shift much of the burden of maintaining the distribution we had built up before the war by direct sales activities to the shoulders of the wholesaler.

In the course of our postwar planning, we considered the wholesaler's postwar position in our picture at great length. We considered the margin he asked, and the services he performed to earn that margin. We concluded that the support of the wholesaler which developed during the war was one of our greatest assets.

We resolved to reduce the extent of our competition with the wholesaler, by increasing greatly the size of the minimum direct
order we would accept. We concentrated on learning how to work with wholesalers, how to'help them do a job selling Johnson's Wax. Today we use the wholesaler's salesmen as an extension of our selling force.
23. Bring warehouse costs in line. If you operate branch or district warehouses, the cost of those warehouses is an element in your distribution costs which will repay close study.

Your warehousing studies are likely to lead you to establish standards for warehouse operation. When we measured existing warehouse staffs against labour standards, we found that some of our warchouses were overstaffed. One warehouse, where our costs were 46 per cent above the national average, turned out to have just twice as many warehouse men as the volume of merchandise handled should require!
24. Relate warehouses to your market. How many warehouses should you have, and where should they be located? Answering a question of this type is a long-term operation. Your study must consider existing leases, alternate space availabilities, building costs and material availabilities, the capital investment required to build, and so on.

Our financial division's analysis of this problem has so far developed the information that one of our 19 district warchouses can be eliminated in the near future, with an annual net saving of $\$ 11,000$. Incidentally, the warehouse in question was one serving a relatively large share of the market. Size alone is just part of the problem.

## Have Distribution Costs Declined?

The objective of this programme was to reduce unit distribution costs by achieving positive increases in marketing effectiveness. The payoff, of course, is on results. Just what has been accomplished to date?

Before offering some evidence that progress has been made, I want to make two important points.

The first point is that this has been and is a team operation. Ours is a relatively small company, in which top management can achieve a high degree of integration among the efforts of different divisions. What has been accomplished to date, is, therefore, in
every sense of the word a company accomplishment. Every division of the company, and every member of each divisional team, has contributed to our progress.

The second point is that this is only the beginning. So far, we have been working with relatively crude analytical tools. We hope to continue the programme using ever more refined tools and techniques.

Some indications of progress have already been touched on in passing. Let me review them briefly:

1. Salesmen's expenses dropped an average of 22 per cent in a six-month period.
2. Major economies in warehousing operations have been made possible, through the financial division's analysis.
3. Our problem districts have been improved materially.

In addition, here are three facts which illustrate three other phases of progress:
4. Our sales volume per salesman today is 366 per cent of the 1939 average.
5. Our share of industry volume on four household products has improved materially.


1939-1941 AVERAGE $=100$
Chart 7. Distribution Costs-Down!
Changes in Three Marketing Ratios to Net Sales
6. Finally, as direct evidence that our distribution costs have been reduced, consider Chart 7. It uses 1939-1941 as a base period. It reflects the decline in the percentage of net sales for three important expense items.

Our sales force expense percentage-salesmen's salaries, expenses, automobile expense, etc.-is today 42 per cent of the 1939-1941 average.
Our total field sales expense percentage-which adds warehouse costs to the salesmen's expenses-is today 55 per cent of the 1939-1941 average.
Our total sales and administrative expense percentage, including advertising, is today 68 per cent of the 19391941 average.
We were able to decrease those percentages in part because of our rising sales volume. However, even with a decline from today's volume, the percentages could be maintained substantially below prewar levels. May I re-emphasize that lower marketing costs have been offset by production cost increases.

## Summary

There you have a high-spot picture of one company's experience in reducing distribution costs. What does that experience contribute to the solution of the distribution cost problems of others?

First, note that our principal weapon was a sincere desire to reduce our distribution costs. That weapon, certainly, is available to all.

Second, we used only crude analytical techniques to throw existing variations in distribution costs into sharp focus. Once the problems are crystallized in specific terms, the solution often becomes obvious.

Third, we used those techniques to attack our distribution costs at many points. At every point, we were able to ring up a positive increase in selling effectiveness.

Fourth, in spite of the crudeness of our techniques, we have already been able to achicve major reductions in distribution costs. The same opportunity exists for every company which has not yet made a determined effort to squeeze the water out of its marketing costs.

When the nation's survival was at stake, American management was confronted by important new problems. We can all be proud of the way those problems were solved through unselfish cooperation.

Today the issue is corporate survival. Again we are faced with new problems. Profits are the life-blood of American business. Those profits are being choked to a trickle by forces which are largely beyond our control. But we are not powerless. We can do something about it. We can provide more breathing space for profits by reducing our distribution costs. It is up to the sales executive to provide the vigorous leadership which is so necessary for an all-out war on distribution costs!

## 7. STANDARDS OF SALES PERFORMANCE

## Theodore H. Brown

THE question of standards of sales performance involves two distinct sets of problems: those having to do with techniques and theories, which represent the business phase of the question, and those having to do with human relationships, which reflect the personal part of the problem. To begin with the business aspects, there are two questions of statistical techniques which are fundamental in problems of sales performance. One is the question of standards; the other is that of controls.

Everyone recognizes the need for guidance, since human beings know practically nothing except in relation to the past experiences of themselves or of others. They learn only from experience and that experience is expressed in the form of standards. "I ate a big meal this noon"-_"I slept well last night"_-"I had a long walk yesterday." These have meaning only in relation to something which has been set up as a reference point in one's own living.

Although in personal questions standards often represent approximations to ideas or habits, in business problems they tend to become fixed, objective figures. An example of this is the salesman's quota which sets a goal for his sales performance. The effect on salesmen of having a definite objective toward which to work is well known. Men can accomplish much more with a pace-maker than they can without it.

A standard can have more than a single value. It may consist of a whole series of values representing a variable standard. For example, executives are well acquainted with fixed and variable standard costs; but when dealing with sales potentials, sales quotas, and statistical estimates of future sales, executives seem to begin to lose sight of the idea of a flexible standard. They regard as exact
and precise any figures which may be set up as targets. Actually sales standards are not different from cost standards in their fundamental purpose. Both are used as guides in making judgments.

## The Nature of Control

In the second place, there is the principle of control. It is a relatively new idea, but a very fundamental one, that controls may have a definitely technical character. This idea of control is based not merely upon a standard, but upon a pair of limiting values fixed on either side of the standard. These limiting values mark off the region or area within which human variation can take place. If those control boundaries are passed, then the signal is up that the situation is out of control.

This concept of control can best be illustrated in connection with the manufacture of goods, although the same principle is being used in a number of sales problems. It is well known that the percentage of spoiled pieces which come from a production process may vary from lot to lot. If records are kept of the percentage spoiled of each batch manufactured under good operating conditions, limits can be determined within which subsequent experience should occur. If, however, in some lot the percentage of spoiled pieces is greater than the larger of the control limits, it is known that some definite, controllable factor has affected the quality of that batch. A red flag of danger is held up to suggest that there is some element in the production process which needs correcting.

The advantage of this concept of a statistical control lies in the fact that it separates the uncontrollable part of the human variation from that which can be controlled. These controls do not require that we unstably walk on top of the single railroad rail of a statistical average. We can walk at will on the sidewalk, because the curb line and the building line set control limits distinguishing the sidewalk from the street. We are in control, presumably, as long as we remain upon the sidewalk, but we are out of control if we wander into the street. The theory of standards, then, is based upon these two rather simple principles of standards and controls. They are necessary in case after case, but many executives do not
recognize the need. They do recognize the need in cost work. They often do not when business problems are expressed in statistical terms.

## Control as Applied to Distribution

Turning to the application of these two principles in problems of distribution, there are five questions to be considered: What do people want? How many units of the particular commodity will they buy? What price will they pay? How can the sale of the commodity be promoted? When operations get under way, how can they be controlled? Briefly, what do these fundamental questions mean? Let us consider each question in turn. First, what do people want? Consumers' research organizations tell us that some products are better than others. They may say, for example, that I must have white paint on my house, if I want to have the best. But supposing I do not want white paint? They say I have to have a certain kind of automobile if my money is to be spent to the best advantage. But I do not want that make of automobile. I want another kind. Regardless of technical tests, we want different things. Just imagine a world in which everyone wanted the same loaf of bread, the same house, or the same automobile. One of the important facts of human experience is that pcople are all interested in and want different things, so that one of the problems in distribution is to find what consumers want.

The second question was: How many units will the public buy or what is the potential market? This is obviously a very important question because factory executives and sales managements need this information when setting goals. The third was: What price will the public pay? Can the price be set at "what the traffic will bear" or is some other price better? What price will return the greatest volume? Is the suggested price wise or is some other price more desirable? I shall omit a discussion of these questions. The techniques are well known in the case of the potential market, and they are only partially known in the other case.

The fourth question is a rather broad one: How can the sale of the commodity be promoted? This question leads into advertising research and promotional activities of all sorts. A few of the problems in this area will be discussed below.

Finally, there is a very important fifth question: After these four questions have been partially answered and the sales programme is under way, can this Frankenstein monster of everincreasing sales activity be kept under control, or will it get out of control and ultimately lead into a depression?

I want to consider the fifth question first, and then the first with the fourth, because they belong together. The fifth question was: How can this selling operation be controlled after it is started? This is a question primarily of the balance between sales, inventory, and production. Of these three, sales volume provides the key. If future sales volume can be estimated, inventory and production can be kept fairly well in balance.

In turn, the problem of future sales volume naturally leads to such questions as the setting of quotas, the measurement of sales performance, the analysis of sales, the appraisal of the style cycle, and salcs costs and trends. In the appraisal of sales work one may consider first the problem of quotas. The value is sometimes determined arbitrarily by sales executives and sometimes on the basis of statistical facts. The statistical approach, in turn, is based upon a knowledge of the sales potential. Even here there is an arbitrary assumption or two necessary when passing from the statistical estimate to the quota value. At these points of arbitrary decision the quotas can be set either low, average, or high in relation to the statistical or other standards which are used. Each type of quota level has certain implications. A low quota sets a standard which every reasonably good salesman is expected to equal or pass. It sets a minimum performance. There is little incentive, however, inherent in such a standard. At the opposite point a high quota sets a goal which only the best can equal or pass. The purpose in using such a quota seems to be that the sales force should be driven toward this objective regardless of consequences to personnel. It would seem that the reasonable or average level is the wisest course if difficulties of personnel management are to be avoided.

## Measuring Sales Performance

For an approach to one problem of the measurement of sales performance, let us look for a moment at the question of evaluating the work of an individual salesman. As a problem it is closely
related to a little game that is played with ivory cubes or to games that are played with a deck of fifty-two cards. If a person gets too many sevens on the ivory cubes, he begins to suspect that there is a "market bias" in them. Similarly, with the fifty-two cards, if there are too many hands with four aces during the course of an evening, there is reason to suspect that something is the matter with the shuffling.

In the same way, the individual salesman can be judged only in relation to standards and control limits. For example, it is possible to take a group of salcsmen who are believed to be of roughly equal ability, and who have closely similar jobs. A standard of average performance may be computed from their records-perhaps so many dollars of sales of a particular line per week or per month. The next step is to find how much the individual salesmen are likely to vary from this standard. Then if there is one particular salesman who is far out of line in relation to the group, it is safe to say that something is the matter. The important thing is that the statistics hold up the red flag. This procedure of spotting "out-of-line" conditions is common practice in many business analyses. The statistical approach, however, tends to focus attention on limits within which a particular case is not out of line.

The analysis of sales introduces the idea of standards in a somewhat different way. Classifications which tell who bought the goods, which lines were sold, where they were sold, who sold them, and similar questions are designed to compile standards in relation to which individual performances are to be judged. Usually these standards are expressed as total figures rather than as averages. There is reason to believe that these standards are not appraised often enough in relation to others such as the measure of potential market to get the full value of the sales analysis.

Another problem which is beginning to receive the attention it deserves is that of the style cycle. This problem can be illustrated by the case of a retail shoe store. Most sales, of course, occur in the middle sizes rather than in the end sizes. One of the principal difficulties in the shoe business is that there is a style cycle in women's shoes so that new stock has to be purchased for each season. If the retailer buys in accordance with a distribution which he thinks from experience is all right, then at the end of the season he often
finds that he has sold all the middle sizes but that he still has the problem of left-over stock in the end sizes. Those end sizes have to be sold at sacrifice sales. This hurts. Probably the controls in this case will be a compromise between the size distribution of sales experience and the requirements of meeting customer demands for a fair-sized stock. If the stock is not large enough, the store's reputation suffers; if it is too large, there are heavy losses at season-end sales.

Sales costs and trends touch more familiar ground. The problem of costs has been widely studied and the question of trends is fairly well known. Whenever the style element enters, however, the modifying influence of the style cycle alters radically the usual procedures.

Now let us look briefly at the technical attack on the first and the fourth questions. These questions were: What do people want? How can the sale of the commodity be promoted? These look like two entirely different questions. One requires us to discover what the customer wants, and the other to find the kind of action which should be taken to promote sales. They appear to be so entirely different that quite different methods should be required in developing information to answer each question, yet this is not the case. The attack on certain phases of these two problems can be obtained through the application of the procedure used by the scientist in his laboratory. Finding out what the people want and appraising the promotional value of advertising call for scientific experimentation in the market.

## The Scientific Method

What is scientific experimentation? How is it organized? How does it differ from frequent business practice? These questions are extremely important. Unfortunately, their 'full significance is not always understood by business men.

The scientific method begins with a plan. No scientist undertakes haphazard experimentation just for the fun of trying things. Such a lack of objective is only accidentally productive. The first thing that the scientist does is to define what he wants to do. The definition is expressed as a careful statement of the objectives to be reached. In other words, he must understand all the implications
in the question for which he wants to find an answer. That basic understanding is very important-knowing precisely what is wanted. The last part of this first step is to formulate these objectives as a set of hypotheses which are to be proved true or false.

The next step in the scientific method is the process of designing an experiment. This is done to secure facts which will indicate whether the hypotheses which have been set up can be accepted as true. In marketing research and advertising research this part of the procedure oftentimes depends upon the correct design of a questionnaire and the selection of a sample. These are very highly technical problems in which extreme care must be used to obtain valid results.

The third step takes place after the experiment has been carried through and the raw data have been recorded. The job then becomes one of reducing those data so that the statistical evidence present can be brought to bear on the hypotheses originally set up. It is here that faulty planning begins to be apparent. Some facts can be obtained from poor material but far, far less in the way of significant truths than if the work had been planned wisely and carried through skilfully.

And finally, there is the interpretation of the data. It is at this point that the experimental results impinge upon the business situation.

These steps have been outlined in the hope that repetition will emphasize the necessity of approaching these problems as the scientist aproaches them. The scientist knows how he must do it, but in business, job after job can be found in which the market research people say, "Yes, we will do that for you. We will find out what the customer wants. We will find out whether this article is wanted or this advertisement is effective." They say, "We will get the data." They start with little thought except that of gathering information. A lot of numerical data is collected and tabulated in one way or another, and there, presumably, is the answer. That is the way too much market research is conducted-no thought or reason, no driving at the question from the point of view of the information which is to be obtained from it.

Now let us look at some details of this scientific plan as applied to market research. Passing by the original analysis of the problem
and the design of the market experiment, we come to the problem of planning for the selection of the sample, and the choice between the stratified sample and the completely random one. This is an important statistical procedure which if correctly carried out will make possible the reduction of the resulting data through the use of some relatively new techniques.

As an illustrative example, suppose there was a close division of opinion on some public question as between men and women in several different parts of the country. Some men vote the way most women vote and conversely. A carefully chosen sample seems to show that the opinion largely favoured by women has a slight lead. Is there any way to make a test so as to be reasonably satisfied that another carefully taken sample might not reverse the result? For the reduction of the data let us assume that opinion is evenly divided. Then, if differences between the assumed equal division of opinion and the observed ballot count for each geographical district are computed, it is possible to test whether these discrepancies are significant. In this example, which is only partially complete, the important point so far is the use of a standard in the form of an assumed equal division of opinion.

As an example in the marketing field, which involves a somewhat more complicated problem in the setting of the standard, consider the data shown in Table I. These data were taken from a questionnaire showing the preference of people in different sec-

> TABLE I

Most Progressive Radio Manufacturers

|  |  |  | North-east | Mid-west | West | South | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Manufacturer A | . | . | 198 | 223 | 152 | 140 | 713 |
| Manufacturer B.. | . |  | 155 | 365 | 263 | 206 | 989 |
| Manufacturer C.. |  |  | 89 | 209 | 191 | 119 | 608 |
|  |  |  |  |  |  |  |  |
| Total . .. | . | .. | ... | 442 | 797 | 606 | 465 |

tions of the United States for three makes of radios. The data seem to indicate that the north-east part of the United States had one attitude, while the Southern States had another, the Middle Western States had yet another, and there was still a fourth attitude in the Far West. The problem is to reduce these data to significant facts. In other words, how much of the differences observed can be charged to sampling variations?

The first step is to set up standard values. These may be determined as values proportionate between the row and column totals. Specifically, for Manufacturer A in the North-east

$$
\frac{442 \times 713}{2,310}=136.5 .
$$

The differences between the observed values and these standards are then taken. The work is shown in Table II.

| TABLE II |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Most Progressive Radio Manufacturers |  |  |  |  |  |  |
| Manufacturer |  | North-east | Mid-west | West | South | Total |
|  | A.. . ......... | 198 | 223 | 152 | 140 | 713 |
|  |  | 136.5 | 246.0 | 187.0 | 143.5 |  |
|  |  | 61.5 | -23.0 | -35.0 | -3.5 |  |
| Manufacturer | B...... ........ | 155 | 365 | 263 | 206 | 989 |
|  |  | 189.2 | 341.2 | 259.5 | 199.1 |  |
|  |  | $-34.2$ | 23.8 | 3.5 | 6.9 |  |
| Manufacturer | C............... | 89 | 209 | 191 | 119 | 608 |
|  |  | 116.3 | 209.8 | 159.5 | 122.4 |  |
|  |  | $-27.3$ | -0.8 | 31.5 | -3.4 |  |
| Total.. ... | ................. | 442 | 797 | 606 | 465 | 2,310 |

The significance of the observed variations may now be checked by computing a value known as Chi Square. ${ }^{1}$ This value is found by squaring each of the differences shown in the above table, dividing each square by the corresponding standard value, and adding the results. In this case the computation would be

$$
\frac{(61.5)^{2}}{136.5}+\frac{(34.2)^{2}}{189.2}+\ldots . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . ~+~(3.4)^{2}-\frac{122.4}{122.4}=57.35
$$

From tables of probability it can be found that the probability of this occurring by chance is a very small fraction of 1 per centto all intents and purposes, zero. In other words, there are significant variations in the pattern shown by the table.

A similar test for the data of the last three columns only shows that the variations within them could occur quite easily by chance. A final similar test between the data of the first column and the merged data of the last three columns again shows important differ-

[^1]ences. If, the agency which conducted this particular research had applied this method to the reduction of the data, it would have found these new facts so that it would have been able to report something like this: "We have taken a sample on the assumption that the attitude toward these three radio manufacturers differs in each of four sections of the United States. Investigation of our data shows that there is no difference of opinion throughout the states except for the north-east section."

## The Social Aspect of the Problem

Turning from the business side, we come to the other aspect of the problem. What does society demand? What standards of personnel and personal behaviour are involved in this question of market research? These questions are closely related to the problem of the responsibilities of leadership, which I think can be expressed as noblesse oblige. The responsibiilty of leadership as it has been known in the best of our civilizations is what we seek. In this area of responsibility it seems that the first thing to be sure about is our mental approach to problems. This requires that we look at problems from a scientific point of view in an anxious endeavour to find the truth. There is nothing else that is so much needed in the world today as the opportunity to find truth. The freedom to find it exists only in the great democracies. That is the thing that we are fighting for: the opportunity and the privilege of finding truth, the privilege of examining every hypothesis, questioning whether it is true, and if it is true, deciding whether it is good.

Then there is the second phase representing the question of the accumulation of knowledge. Unless we learn from our experimentation, unless we know where and when we are wrong, we are not gaining very much. Growth comes only out of learning from the experience of ourselves and of others.

The third phase is the great need for the pioneer sprit, the necessity for the leaders to take the risks of pioncers. Will you assume the risk of making an attempt to appraise the performance of your salesmen? How much will you risk in the design of an experiment made in the hope that a new scientific approach to some problem will save money for you and your clients? Are
you willing, as the slang phrase goes, to "stick your neck out"? The men who are leaders in research are willing to do these things. They have risked their businesses in the test of the value of the scientific method and in a willingness to look at facts squarely and to judge solely by them.

Then, finally, there is the question of leadership. The leader must learn how to understand people and how to appraise them. The psychological side of problems is important. It seems absolutely clear that personncl questions cannot be divorcd from the statistical appraisal or approach to problems, such as the control of sales, of sales performance, and of budgets. Witness a question of quota setting in which a high quota was set by the accounting division in terms of impersonal cold-blooded figures, with the implication to the management that they must drive the salesmen to the limit to meet the high quota. That is not leadership. In an entirely different case, there is a salesman who does not come up to various standards or who fails to make his quota. It is not the part of leadership to call him in and say: "Bill, the results of your selling are terrible. You are through." The thing to do is to find out why Bill's sales are down. Maybe the man's wife is not well, perhaps his children are sick. Any poor fellow with sick children on his hands has enough to worry about without having to worry about his job as well. A kindly pat on the shoulder and a little support would do a great deal to make the man and perhaps the children well again. Maybe his wife did not get up to give him a good breakfast in the morning. These things are important. Scientific method begins with the question, "What is the matter with this salesman?" With the answer to this question, management is ready to make a decision and to take a position on the matter. If it is established from every point of view that Bill has not the capacity for selling or is not interested in selling, and probably never will be interested in it, then the quickest and wisest thing, of course, is to have Bill's work changed, either by placing him in some other department in the business or by helping him to get a suitable job somewhere else.

The need for a high quality of leadership also appears in the work of organizing and conducting market and advertising research. Do the results that are found conform with the highest ethical re-
search standards that presumably you are trying to maintain? I am one of those who believe that if you are really seeking the truth, your leadership inevitably is enhanced. What I fear is the lack of truth, false information, happy-go-lucky, hit-or-miss research, testing which tests absolutely nothing. From observing the leaders in research work and from talking with their clients, I am convinced that leadership depends upon certain definite things. The high quality of work which some of these men are doing, and the confidence and the trust that they inspire everywhere among the advertising and sales management fraternity, rest upon their eagerness to find the truth. They have no fear when leading their staffs in that direction. They depend absolutely upon the integrity of their staffs to help them move forward toward new results. The pcople who work for you, the people whom you are questioning in the market, know instinctively what you are and what you are doing. Even though you may be fooling yourself, you are not fooling them.

In conclusion, what of the future of advertising, of sales standards and performance standards? I think there is no question that the future will find a wider use and a wider understanding of the principle of standards. It is a common idea but it is so common that everybody overlooks it. Men try to do the elaborate and to forget the humble. The scientific method often represents a simple but a thorough and direct attack upon problems.

I think that in the future we will find more of the scientific spirit. By its use we will find new light on problems of the control of sales, of the setting of sales quotas, of the control of the performance of salesmen, of marketing and advertising research.

Going still another step, I think we will find in the very near future in this field of market and advertising research a very wide use of such methods as Chi Square and the analysis of variance, together with a wider understanding of sampling and sampling errors. This, I belive, will come true because scientific experimentation provides the key to a wealth of information not otherwise available. The whole, however, will be futile unless there is present a deep sense of the responsibilities of leadership as well as a rational balance between statistical facts scientifically determined and the human side of each problem.

# 8. CONTROL OF RETAIL OPERATIONS 

Malcolm P. McNair*

MERCHANDISING control involves ascertaining the operating and financial position of the store at a particular time, the establishment of a plan for future operations, and the measurement of progress toward the accomplishment of the plan. Although managers rely upon a variety of control devices such as incentives, supervision, and conferences, in order to be assured that activities are proceeding in accord with preconceived standards, the control "tool" which may be considered most indispensable and upon which the success of retail operation most often depends is adequate records. The importance of control records in retail store management was aptly described by a familiar English writer in a book ${ }^{1}$ published over two hundred years ago.

A tradesman's books are his repeating clock, which upon all occasions are to tell him how he goes on, and how things stand with him in the world; there he will know when 'tis time to go on, or when 'tis time to give over; and upon his regular keeping, and fully acquainting himself with his books, depends at least the comfort of his trade, if not the very trade itself. If they are not duly posted, and if everything is not carefully entered in them, the debtors' accounts kept even, the cash constantly balanced, and the credits all stated, the tradesman is like a ship at sea, steer'd without a helm; he is all in confusion, and knows not what he does, or where he is; he may be a rich man or a bankrupt, for in a word, he can give no account to himself, much less to anybody else.
The essence of Defoe's statement is that complete and properly interpreted records provide for the retailer "an account of himself to himself," which in the last analysis represents the substance and

[^2]purpose of retail store control. It is with this thought in mind that principal attention will be given to the types of records necessary for control purposes: ${ }^{2}$ (a) merchandise records, ( $b$ ) expense records, (c) financial records.

## Merchandise Records

The essential merchandise records are: gross sales, customer returns, net sales, mark-up, mark-downs, gross margin (gross profit), stock on hand, stock sales ratios, rate of stock-turn, and number of sales transactions. The first three are so universally recorded and understood by all classes of retailers that explanation of their use is unnecessary. Mark-up is the difference between the cost of items and their retail selling price and may be expressed in dollars, or as a percentage of the cost price, or as a percentage of the selling price. For example, if a single item or a group of items which cost $\$ 80$ were priced to sell at retail at $\$ 120$, the mark-up would be $\$ 40$ or $331 / 3$ per cent of retail, or 50 per cent of cost. ${ }^{3}$ A mark-down is a reduction from the price at which an article was originally marked to sell and is, in most systems, expressed as a percentage of the new selling price. Gross margin, or gross profit as it is frequently called, is of course the amount which remains after the cost of the merchandise sold is deducted from the dollar amount received for the goods. It is the resultant of cost, mark-up, markdowns and sales, and constitutes an important measure of the potential profitableness of a department or store. Net profit is calculated by deducting all operating expenses from the gross margin figure. If gross margin for a particular period differs widely from that of past periods, or if it deviates materially from the "planned" gross margin, there is evidence that the factors which determined it have not been satisfactorily controlled, and that analysis and corrective measures are needed. Numerous retail stores maintain records adequate enough to permit them to calculate their gross
${ }^{2}$ Although a treatment of merchandising records inevitably involves accounting, the term, for the purposes of this discussion, will be considered strictly from a managerial point of view rather than from a technical bookkeeping viewpoint. It will be considered as a device for planning and future action rather than as a mere post mortem of past operations.
${ }^{3}$ One large department store in Toronto computes mark-up on the cost basis, while another uses the retail basis. Although there has been a trend towards use of the retail basis, many stores still prefer to use markup as a percentage of cost.
profit, but they can do so only by taking a physical inventory of goods on hand. ${ }^{4}$ Thus it can be seen that this important measure is known only annually or semi-annually when the dollar value of the stock on hand is determined. In subsequent paragraphs a method of revealing the amount of stock on hand without taking a physical inventory will be explained.

The stock-sales ratio, as illustrated in Table I, represents another type of record which has proved useful in merchandise control. It shows the relationship of merchandise on hand at the beginning of a month or season to the actual or planned sales of the period. In the table referred to, the stock at the beginning of February- $\$ 15,000$-is equal to 15 times the $\$ 10,000$ of actual sales or planned sales, whichever the case may be. Regularly compiled records of stock-sales ratios indicate to the retail manager that his stocks are too high or too low and constitute useful yardsticks in the planning of future stocks, purchases, mark-downs, and promotions. As in the case of gross margin, stock-sales ratios could not be computed without knowledge of the value of stock on hand at the various periods. Merchandising efficiency may also be appraised in terms of another measure known as stock turnover, which, although similar to a stock-sales ratio, is basically different as indicated in Table I. Stock turnover is the number of times within

TABLE I
Stock Sales Ratios and Rate of Stock-Turn

| Month | Sales | End-of-month stock | Stock-sales ratio |
| :---: | :---: | :---: | :---: |
| January | \$ 5,000 | \$15,000 | - |
| February | 10,000 | 25,000 | 1.5 to 1 |
| March | 20,000 | 30,000 | 1.25 to 1 |
| April ... | 25,000 | 25,000 | 1.2 to 1 |
| May | 20,000 | 20,000 | 1.25 to 1 |
| June | 15,000 | 10,000 | 1.5 to 1 |
| July | 5,000 | 5,000 | 2.0 to 1 |
| Total sales (at retail), February-July... .. .... ..... ......... \$95,000 |  |  |  |
| Average EOM stock (at retail), January-June. .. ...... \$20,833 |  |  |  |
| Stock-turn $=\frac{\$ 95,000}{\$ 20,833}=4.46$ times for the season. |  |  |  |

Note: In computing stock-turn both sales and average stock must be in terms of cost or in terms of retail selling price.

4t must be recalled that "cost of goods sold" equals beginning inventory plus purchases less closing inventory. See column 1 in Table IV.
a period-generally a year-that the average amount of stock is sold. In stores in which inventory is taken only at the beginning and end of a year the average stock would of course be one-half (beginning inventory plus closing inventory), an unrepresentative average, since in most cases the volume of merchandise on hand fluctuates according to the season or period within a season. The turnover figure can therefore be estimated with increased accuracy when the system provides monthly inventory figures. Care must be exercised in the use of the stock-turn measurement in retail control; the frequently repeated statement that high net profit is dependent upon a high stock-turn must necessarily be qualified by explanation of the methods by which the high turnover is achieved. If the turnover should be increased by removing from the stock slow-selling items which contribute nothing toward the general appeal of the merchandise, or if it should be increased by an advance in sales volume while the average stock is maintained at usual levels, net profit would no doubt be increased. On the contrary, if turnover should be increased through an arbitrary, unwarranted reduction in the size of stock or if sales should be increased through the medium of uneconomical selling costs, the effects upon net profit might prove disastrous. There has been a decline in the use of the stock turnover in recent years as a merchandise control measurement, and for general application in the planning of stock and sales relationships the stock-sales ratio may be considered superior.

The "number of sales transactions," the last control measure enumerated in the list of essential merchandise records above, proves useful to the retail manager at all times, and particularly in a period of rising prices. It indicates the extent to which increased sales volume may be attributed to higher retail prices rather than to increased unit sales. If cost of merchandise rises commensurately with the rise in total sales, gross margin-the amount available for expenses-may remain constant. If all expenses are viewed as percentages of sales, it is conceivable that the retailer's net profit may be reduced as a result of his continued appraisal of expenses in terms of higher sales-the higher volume of which is due to price increases and not unit sales increases. A comparison of "number of sales transactions" to sales may avoid the oversight. The
measure also has advantages in planning the number of salespeople for various seasonal periods or for different departments within one store, and from information as to the "number of transactions" the manager, by dividing the figure into net sales, may calculate the "average sale," which obviously scrves as a further useful measure in appraising the trend of his merchandising operations from period to period. This rather cursory review of essential merchandise records has by no means indicated all their useful applications by an alert retailer. It may be suggested, however, that the maintenance and intelligent use of the records described often represent the difference between mere store-keeping and retail store management.

In order to obtain the basic merchandising records such as mark-up, mark-downs, and gross margin, it is necessary to maintain a perpetual or book inventory of merchandise which informs the manager at frequent intervals or at any particular time of the exact amount of merchandise on hand. Book inventory may be calculated on a cost basis as illustrated in Table II or on the retail basis illustrated in Table III. Under the former, all merchandise in stock at the beginning of a month or season is recorded at cost, and to this is added all purchases at cost, the sum of which equals cost of "goods handled." Throughout the period all sales are recorded at cost and when the sales total is deducted from "goods handled," the resulting figure shows the amount of stock which is or should be on hand. At annual or semi-annual periods when all merchandise is actually counted, the physical inventory may be compared to the book inventory to reveal the dollar volume of stock shortages. The

## TABLE II

Sample Calculation of Book Inventory on the Cost Basis

Beginning inventory at cost.............................................. \$27,200

Purchases at cost................. ................ .......................... 54,900
Cost of goods handled..................................................... \$82,100
Sales at cost..................................................................... 52,900
Ending book inventory at cost........................................ \$29,200
Ending physical inventory at cost.................................... 27,675
Stock shortages at cost................................................... \$ 1,525
principal disadvantage of the cost method of calculating inventory is clearly the laborious and difficult process of ticketing in code each item at cost and recording each sale at cost. The second method of maintaining a continuous book inventory is used more generally in large retail concerns, and although universally known as the retail method, might more appropriately be described as a cost and retail method, since records of stock on hand, purchases, and mark-downs are maintained at cost as well as at retail levels. In the sample calculations of book inventory in Table III, it can be seen that the closing inventory is $\$ 47,500$ (at retail prices), and the question naturally arises as to how the figure may be converted to a cost basis for the purpose of ascertaining cost of goods sold and the more significant control figure-gross margin. At the end of a month or period, all the dollar mark-ups which have been applied to purchases for the purposes of valuing goods at retail are totalled, and this figure is expressed as a percentage of total retail value of goods charged to the department. In this case, for example, if

TABLE III
Sample Calculation of Book Inventory on the Retail Basis
Beginning inventory at retail....... ............... ...................... \$ 43,500
Purchases at retail ......................... .................................... 90,000
Total goods handled........................................................... \$133,500
Net sales ... .. . .............. ............. ................... .. ... \$81,000
Mark-downs ......................................................... 5,000
86,000
Ending book inventory at retail.......................................... \$ 47,500
Ending physical inventory at retail.................................... 45,000
Stock shortages at retail........................................................ \$ 2,500
the aggregate amount of mark-ups should be 30 per cent of "goods handled" the so-called "cost complement" would be 70 per cent, and this 70 per cent when applied to $\$ 47,500$ would thus reduce it to "closing inventory at cost." In Table III it should be noted also that the book inventory provides a method of determining stock shortages which would obviously be impossible if continuous inven-

[^3]TABLE IV
Cost and Retail Form of Profit and Loss Statement

|  | Cost | Retail | Mark-up or gross margin, and profit | Per cent |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Beginning inventory <br> Purchases <br> Less cash discounts | $\$ 100,000 \$ 26,000$ | \$ 40,000 | \$14,000 | 35.0 |  | $\begin{aligned} \text { Total } & \text { retail of beginning inventory } \\ = & 100 \% \end{aligned}$ |
| Plus transportation costs. <br> Plus additional mark-ups. | $\begin{array}{rr} \$ 94,600 & \\ 2,400 & 97,000 \end{array}$ | $\begin{array}{r} 158,500 \\ 1,500 \end{array}$ | $\begin{array}{r} \mathbf{6 1 , 5 0 0} \\ 1,500 \end{array}$ |  |  |  |
| Total goods handled. Less mark-downs (net).... Less employee discounts. | \$123,000 | $\begin{array}{rr} \$ 200,000 \\ \$ 10,000 & 12,000 \\ 2,000 & 12,0 \end{array}$ | $\begin{array}{r}\text { \$77,000 } \\ 12,000 \\ \hline\end{array}$ | 38.5 8.6 | 61.5 | Total retail of goods handled $=100 \%$ <br> Net sales $=\mathbf{1 0 0 \%}$ |
| Maintained retail Gross sales Less returns |  | $\overline{\$ 155,000} 18188,000$ | \$65,000 | 34.6 |  | Maintained retail of goods handled $=100 \%$ |
| Net sales... |  | 139,000 |  |  |  |  |
| Ending book inventory. . . . Ending physical inventory. | 29,520 | 61.5\% $5 \begin{array}{r}\$ 49,000 \\ 48,000\end{array}$ |  |  |  |  |
| Stock shortages.......... |  | \$ 1,000 |  | 0.7 |  | Net sales $=100 \%$ |

Table IV-Continued

tory records were not maintained. The conclusion should not be drawn from Table III, however, that physical inventories are taken as frequently as book inventories.

The general advantages of maintaining a book inventory on the retail basis are as follows: (a) it provides management with a constant knowledge of gross margin, mark-up, and mark-downs; (b) it provides a constant knowledge of stock on hand at retail or at cost; (c) it ensures, in accordance with mark-downs, an automatic depreciation of inventory; ( $d$ ) it simplifies inventory computation by eliminating cost codes on merchandise; (e) it is less subject to error than the cost audit method; and ( $f$ ) it provides a basis of settlement with an insurance company in the event of sudden loss. The disadvantages of the method are: (a) it requires a complete record of all price changes, both up and down; (b) it is an averaging method and may therefore result in some inaccuracies, such as inflation of the closing inventory.

The fundamental differences of the cost and the retail methods of inventory control are illustrated in the sample operating statements shown in Table IV. Although these profit and loss statements are different in form from those in general use, they provide in this case an effective means of demonstrating the principal differences of the cost and retail methods. The total of purchases and beginning inventory at cost is $\$ 123,000$, while the total at retail is $\$ 200,000$. The difference between these amounts is $\$ 77,000$ and as already explained, represents the aggregate mark-up on all goods handled. This figure in percentage form is 38.5 and when deducted from 100 per cent leaves 61.5 per cent, the cost complement, which when applied to the adjusted ending book inventory at retail$\$ 48,000$, provides the desired cost value of the inventory which is shown in column 1 as $\$ 29,520$. With this information it is now possible to carry the procedure on through the usual steps of calculating the cost of goods sold, gross margin, and net profit. ${ }^{6}$

In summary it may be emphasized that, whether a cost or retail basis of book inventory is adopted, the advantages of maintaining continuous records of merchandise stocks, mark-ups, mark-downs, sales, gross margins, and sales transactions, can be readily appre-
${ }^{6}$ In examining Table IV, it should be recalled that in the retail method records of opening inventories and purchases are kept at cost as well as retail values.
ciated by the astute retailer. Through their use he may plan a sound course and measure the dcgree to which the course is followed. We may now turn to a consideration of expense records, an equally important aspect of retail control.

## Control of Expenses

Expense control simply involves establishing in advance what each expense should be in the light of particular functions performed, and methods by which the expenses may be measured and held within the limits so established. Control of expenses does not necessarily require that they be reduced. Sound policy in numerous cases may call for an increase of certain selling expenses with a view to increasing sales in such a degree that net profit will be larger. Thus it becomes clear that expense control should have for its purpose the establishment of expense amounts which will maximize net profit. This represents a task of no simple proportions; it necessitates thorough analysis and interpretation of past expenses, a careful appraisal of current and future conditions, and an accurate estimate of the store's merchandise and selling policies in so far as they may affect expense allowances or requirements. Adequate expense records will simplify the planning and control of expenses, and one of the first steps in this respect is to segregate and classify expenses in order that the store or department manager may evaluate them according to their respective functions, and according to the particular individuals who are responsible for them. A knowledge of the overall expense figure or the ratio of total expenses to sales and to gross margin is fundamental, but that information alone would not reveal sources of trouble in the event that individual expenses were too high or too low.

One common practice in regard to the segregating of retail expenses is known as the "natural classification," in which all expenses are recorded according to the specific purposes for which the expense payments are made. In the case of salaries and wages for example, all such payments would be charged to one payroll account or classification, notwithstanding the fact that the wages paid contributed to the performance of several different departments or functions, such as delivery, selling, service, and so on. A second widely adopted procedure in the recording of expenses is
TABLE V
 (Net Sales $=100 \%$ )

| Items | Net sales(in thousands) |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{array}{\|c\|} \text { Lessthan } \\ \$ 150 \end{array}$ | $\begin{gathered} \$ 150- \\ 300 \end{gathered}$ | $\begin{gathered} \$ 300- \\ 500 \end{gathered}$ | $\begin{gathered} \$ 500- \\ 750 \end{gathered}$ | $\begin{aligned} & \$ 750- \\ & 1,000 \end{aligned}$ | $\begin{gathered} \$ 1,000- \\ 2,000 \end{gathered}$ | $\begin{gathered} \$ 2,000- \\ 4,000 \end{gathered}$ | $\begin{gathered} \$ 4,000- \\ 10,000 \end{gathered}$ | $\begin{aligned} & \$ 10,000- \\ & 20,000 \end{aligned}$ | $\$ 20,000$ <br> or more |
| Number of reports: <br> Giving functional data. <br> Giving other data. . . . | $\stackrel{1}{48} \ddagger$ | $12 \ddagger$ $43 \ddagger$ | 14 39 | $28 \ddagger$ $47 \ddagger$ | $24 \ddagger$ | $53 \ddagger$ $61 \ddagger$ | $56 \ddagger$ $58 \ddagger$ | $60 \ddagger$ | $26 \ddagger$ | $13 \ddagger$ |
| Aggregate sales (in thousands). | \$5,995 | \$10,467 | \$14,294 | \$49,310 | \$25,265 | \$78,783 | \$146,165 | \$389,702 | \$361,435 | \$461,470 |
| Typical net sales (in thousands) | \$85 | \$235 | \$360 | $\$ 545$ | \$785 | \$1,270 | \$2,400 | \$5,600 | \$13,800 | \$27,000 |
| Change in sales ( $1940 / 1939$ ) . . | 102.0 | 1055 | 1040 | 106.3 | 106.7 | 105.0 | 106.5 | 106.0 | 107.0 | 106.5 |
| Population of city (in thousands). | 10 | 20 | 30 | 45 | 60 | 85 | 285 | 400 | 950 | 2,100 |
| Population (interquartile range ${ }^{1}$-in thousands) | 5-15 | 13-26 | 19-40 | 31-67 | 44-68 | 54-156 | 106-308 | 264-663 | 453-2,698 | 1,497-3,385 |
| Natural Divisions |  |  |  |  |  |  |  |  |  |  |
| Total pay roll. | 16.8\% | 17.0\% | 17.5\% | $17.35 \%$ | 17.35\% | 17.55\% | 16.8\% | $17.25 \%$ | 18.15\% | 17.7\% |
| Real estate costs ${ }^{1}$ | 3.9 | 3.8 | 3.1 | 3.85 | 4.3 | 3.75 | 4.1 | 4.25 | 4.3 | 5.1 |
| Newspaper advertising | * | * | $2.2 \dagger$ | $2.2 \dagger$ | 2.8 | 2.9 | 305 | 3.2 | 3.2 | 3.0 |
| Direct advertising. |  | * | $0.15 \dagger$ | $0.1 \dagger$ | $0.1 \dagger$ | $0.2 \dagger$ | 0.15 | 0.2 | 0.25 | 0.25 |
| Other advertising. | * |  | $0.35 \dagger$ | $0.3 \dagger$ | 0.3 | 0.3 | 0.25 | 0.25 | 0.2 | 0.2 |
| Total advertising (subto | 1.9 | 2.5 | (2.7) | (2.6) | (3.2) | (3.4) | (3.45) | (3.65) | (3.65) | (3.45) |
| Taxes ${ }^{1}$. | 1.25 | 1.05 | 1.15 | 1.15 | 1.1 | 1.15 | 1.2 | 1.15 | 1.2 | 1.15 |
| Interest ${ }^{2}$ | 2.8 | 2.35 | 2.3 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 1.9 | 1.7 |
| Supplies.. | 1.05 | 1.15 | 1.4 | 1.65 | 1.75 | 1.75 | 1.8 | 1.95 | 1.95 | 1.8 |
| Service purchased | 1.15 | 1.1 | 1.05 | 1.15 | 1.25 | 1.2 | 1.15 | 1.3 | 1.45 | 1.6 |
| Losses from bad deb | 0.25 | 0.3 | 0.3 | 0.2 | 025 | 0.25 | 0.15 | 0.15 | 0.2 | 0.2 |
| Other unclassifie | $08 \dagger$ | 0.7 | 0.8 | 0.9 | 0.8 | 0.8 | 0.85 | 0.85 | 0.9 | 1.1 |
| Travelling | 0.35 | 0.3 | 0.45 | 0.4 | 035 | 0.4 | 0.4 | 0.4 | 0.3 | 0.15 |
| Communicatio | 0.55 | 0.5 | 0.55 | 0.55 | 0.55 | 0.5 | 0.5 | 0.55 | 0.55 | 0.55 |
| Repairs. | $0.2 \dagger$ | 0.25 | 0.3 | 0.4 | 0.5 | 0.45 | 0.4 | 0.45 | 0.45 | 0.5 |
| Insurance ${ }^{\text {2 }}$. | 0.5 | 0.5 | 0.45 | 0.4 | 0.35 | 0.35 | 0.3 | 0.3 | 0.25 | 0.2 |
| Depreciation ${ }^{2}$. | 0.45 | 0.5 | 0.5 | 0.8 | 0.7 | 0.65 | 0.65 | 0.7 | 0.7 | 0.7 |
| Professional services ${ }^{1}$ | $0.35 \dagger$ | 0.4 | 0.45 | 0.5 | 0.55 | 0.5 | 0.55 | 0.55 | 0.45 | 0.5 |
| Total expense | 32.3\% | 32.4\% | $33.0 \%$ | $33.9 \%$ | 35.0\% | $34.7 \%$ | $34.3 \%$ | 35.5\% | 36.4\% | 36.4\% |

Table V-Continued

| Items | Net sales (in thousands) |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { Less than } \\ \$ 150 \end{gathered}$ | $\begin{gathered} \$ 150- \\ \mathbf{3 0 0} \end{gathered}$ | $\begin{gathered} \$ 300- \\ 500 \end{gathered}$ | $\begin{gathered} \$ 500- \\ 750 \end{gathered}$ | $\begin{aligned} & \mathbf{8 7 5 0}- \\ & \mathbf{1 , 0 0 0} \end{aligned}$ | $\begin{gathered} \$ 1,000- \\ 2,000 \end{gathered}$ | $\begin{gathered} \$ 2,000- \\ \mathbf{4 , 0 0 0} \end{gathered}$ | $\begin{aligned} & \$ 4,000- \\ & \mathbf{1 0 , 0 0 0} \end{aligned}$ | $\begin{array}{r} \$ 10,000- \\ 20,000 \end{array}$ | $\$ 20,000$ or more |
| Functional Divisions |  |  |  |  |  |  |  |  |  |  |
| Administrative and General |  |  |  |  |  |  |  |  |  |  |
| Acctg. Office, accts. rec., and credit. | * | * | * | $2.5 \% \dagger$ | $2.7 \%$ | 2.6\% | $2.35 \%$ | $2.25 \%$ | 2.3\% | 2.1\% |
| Exec. and other admin. and general. | * | * | * | $6.1 \dagger$ | 5.55 | 5.95 | 5.7 | 5.65 | $5.55$ | $5.35$ |
| Total admin. and general | * | * | - | 8.6\% | 8.25\% | 8.55\% | 8.05\% | 7.9\% | $7.85 \%$ | 7.45\% |
| Occupancy |  |  |  |  |  |  |  |  |  |  |
| Operating and housekeeping. . . . | * | * | * | 1.55\% | 1.6\% | 1.55\% | $1.45 \%$ 4.1 | $1.65 \%$ 4.25 | 2.0\% | 1.9\% |
| Fixtures and equip. costs......... | * | * | * | 1.2 | 1.0 | 0.85 | 0.9 | 0.95 | 0.95 | 0.85 |
| Heat, light, and power.. | * | * | * | 1.05 | 1.0 | 0.9 | 0.8 | 0.75 | 0.7 | 0.6 |
| Total occupancy | * | * | * | 7.65\% | 7.9\% | $7.05 \%$ | 7.25\% | 7.6\% | $7.95 \%$ | $8.45 \%$ |
| Publicity |  |  |  |  |  |  |  |  |  |  |
| Sales prom. and gen. adv.......... | * | * | * | $3.2 \%$ 0.65 | $3.7 \%$ 0.7 | $\begin{aligned} & 4.05 \% \\ & 0.65 \end{aligned}$ | $\begin{aligned} & 4.15 \% \\ & 0.55 \end{aligned}$ | $\begin{aligned} & 4.45 \\ & 0.55 \end{aligned}$ | $\begin{aligned} & 435 \% \\ & 0 \\ & \hline \end{aligned}$ | ${ }_{0.5}^{4.1}$ |
| Total publicity | * | * | * | 3.85\% | 4.4\% | $4.7 \%$ | 4.7\% | 5.0\% | 4.9\% | 4.6\% |
| Buying and merchandising Mdse. management and buying Receiving and marking . . . . . . . . | * | * | * | $3.2 \%$ 0.35 | $3.75 \%$ 0.5 | $3.8 \%$ 0.5 | $3.8 \%$ 0.5 | $4.0 \%$ 0.5 | $\begin{aligned} & 3.85 \% \\ & 0.55 \end{aligned}$ | $\begin{aligned} & 3.5 \% \\ & 0.55 \end{aligned}$ |
| Total buying and mdsing. . . . . . | * | * | * | 3.55\% | $4.25 \%$ | 4.3\% | 4.3\% | 4.5\% | $4.4 \%$ | 4.05\% |
| Direct and general selling . . . . . . . . . Delivery | * | * | * | $\begin{aligned} & 9.6 \% \\ & 0.65 \end{aligned}$ | $9.2 \%$ 1.0 | $\begin{aligned} & 8.95 \% \\ & 1.15 \end{aligned}$ | $\begin{aligned} & 8.7 \% \\ & 1.3 \end{aligned}$ | $\begin{aligned} & 8.95 \% \\ & 1.55 \end{aligned}$ | $9.4 \%$ | $\begin{aligned} & 9.4 \% \\ & 2.45 \end{aligned}$ |
| Total expense | $32.3 \%$ | 32.4\% | 33.0\% | $33.9 \%$ | 35.0\% | 34.7\% | $34.3 \%$ | 35.5\% | $36.4 \%$ | $36.4 \%$ |

[^4]the "functional classification" by which all expenses are classified and recorded according to the particular store function or activity with which they may be associated. Some of the general payroll expenses referred to above would be allocated to and recorded under the various functional activities of the store-such as occupancy, buying, publicity, and the like. We may now turn to Table V which illustrates both practices of classification, and which indicates, in addition, that numerous stores segregate their expenses according to both methods of classification. A functional classification would in fact be difficult until management first examined expenses under their so-called natural headings. It should be noted that all of the expenses in the upper part of the table when reclassified are allocated to six broad functional classifications: administrative and general, occupancy, publicity, buying and merchandising, direct and general selling, and delivery, and that the "total expense" percentages in the upper part of the table are identical-in their respective columns-to the "total expense" percentages in the lower part. It is clear, therefore, that the two divisions of the table simply represent two methods of classifying the same total expense figures of the department stores represented.

It is apparent that classificd expenses should be maintained on a uniform basis in order to permit comparisons from period to period, and it is similarly desirable that all retail stores representing a specific trade group maintain comparable expense classifications. Without the uniformity, comparison schedules exhibiting average figures for a number of stores-such as those in Table V-would not be possible. A further requirement of expense segregation is that expenses be classified in such a manner as best to fit an individual store's functional organization. If the store should be organized on a departmental basis, the functional basis would thus be the more serviceable.

Planning an expense budget is the control step which follows the classification of expenses, and should receive as much attention as merchandise planning in small retail establishments as well as large. The budget figures for a large store as shown in Table VI represent one year's operation, and for current control purposes they would also be broken down for quarterly, monthly, or seasonal periods. All expenses are computed in percentage form-as shown in the
right-hand column-in order to exhibit clearly the relative position of individual expenses to total expenses, 100 per cent, and to facilitate comparison from period to period, and possibly with expense ratios of other stores as illustrated in Table V. In expense budgeting the importance of assigning responsibility for every dollar of expense to particular individuals cannot be over-emphasized. Table VI indicates that for the year ending February 1, 1941, the controller was allowed $\$ 246,000$ for the operation of his division; the service manager, $\$ 1,012,000$; the delivery manager, $\$ 115,000$; and so on. Deviations from these estimates at the end of the period would indicate either inefficiency on the part of the respective managers, or changed conditions which would require a revision of the budget figures. If, in the planning of the budget, it becomes evident that the total expense estimates will not allow the desired net profit -when they are deducted from gross margin-they should be analysed individually for possibilities of downward adjustment.

In reference to expense budgeting, it should be realized that the majority of stores are small and without departmental organization, and that their budgeting requirements can be met by simple natural classification of expenses. Through careful study a control figure is established for each natural expense account and the retail proprietor in many instances can determine without assistance the extent to which his actual results compare with his budget estimates. Although expense budgeting is not the easiest road to profitable operation, its advantages indeed warrant the efforts involved. It compels the manager to examine each expense before the expense is incurred; it compels him to co-ordinate in advance all the activities of his store; it serves as a measuring stick throughout his operating period rather than at the end of it; and informs him in advance of the probabilities of profit-or loss.

## Financial Control

A third important aspect of retail store management is the control of finances, which involves, for the most part, a consideration of the merchandise and the expense estimates already discussed. A financial budget is a combination of the merchandise budget and the expense budget, put together in such a way as to show the cash income and the cash outgo and the expected working capital of the

## TABLE VI

## Outline of an Expense Budget Indicating Assignment of Responsibilities for Planning, Showing Illustrative Figures for a Large Store

I. Controller
1 Auditing and accounting
2 Credit office.
3 Cash office.
4 General finance.
Total controller.
Year ending February 1, 194I
Dollar expenses Per cent
\$ 71,000 1.7
$\begin{array}{ll}81,000 & 2.1\end{array}$
$\begin{array}{ll}19,000 & 0.5\end{array}$
$71,000 \quad 1.7$
$\$ 246,000 \quad 6.0$

## II. Store Manager

## 1 Service

(a) Women's and boys'
\$699,000
17.0
(b) Men's. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\quad 52,000 \quad 1.2$
(c) Basement.

268,000
6.5
(d) Service departments.

28,000
0.7
(e) Public restaurant

55,000
1.3
(f) Employees' restaurant.

10,000
Total service
$\$ 1,112,000$
0.3
-

2 Delivery.
\$115,000
24.6

3 Operating
(a) Maintenance, Boston. . . . . . . . . . . . . . . . . . . $184,000 \quad 4.5$
(b) Cleaning. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\quad 47,000 \quad 1.1$
(c) Mechanical. . . . . . . . . . . . . . . . . . . . . . . . . . . . $\quad 34,000$
0.8
(d) Light, heat and power.
(e) Warehouse.

75,000
1.8
(e) Warehouse. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\quad 40,000$ 1.0
(f) General upkeep.

12,000
0.3

Total building. . . . . . . . . . . . . . . . . . . . . . . . $\$ 392,000 \quad \mathbf{9 . 5}$
(a) Main receiving and marking and reserve stock $\quad 36,000 \quad 0.9$
(b) Basement receiving and marking and reserve
(c) Purchase returns, etc.

Total receiving and marking and reserve stock $\quad 112,000 \quad 2.8$
Total operating. ............................. . $\quad 504,000 \quad 12.3$
4 Employment.
8,000
0.2

5 Training.
6 Personnel service.
7,000
0.2

32,000
0.8

7 Hospital.
2,000
8 Service fund. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 29,000
0.7

9 Protection. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 11,000
0.3

10 General store manager. . . . . . . . . . . . . . . . . . . . . . 28,000
Total store manager . . . . . . . . . . . . . . . . . . . $\overline{\$ 1,758,000} \quad \overline{42.8}$

## Table VI-Continued

Year ending February I, 1941Dollar expenses Percent
III. Main Merchandise Manager
1 Main buying \$299,000 ..... 7.3
2 General merchandise office ..... 2,000
3 Branch shops ..... 24,000 ..... 0.6
4 Chicago office 13,000 ..... 0.3
Total main merchandise manager $\$ 438,000$ ..... 10.6
IV. Basement Merchandise Manager \$140,000 ..... 3.4
V. Publicity Manager
1 Advertising \$434,000 ..... 10.6
2 Decorating 157,000 ..... 3.8
3 General publicity ..... 42,000 ..... 1.0
Total publicity \$633,000 ..... 15.4
VI. Rents and Taxes \$489,000 ..... 11.9
VII. Insurance 28,000 ..... 0.7
VIII. Unassigned 376,000 ..... 9.2
Total Store \$4,108,000 ..... 100.0
Per cent to sales 1939 ..... 34.19
Per cent to sales 1938 ..... 34.65
business from month to month for a period of six months in advance. Financial control, when considered broadly, embraces the long-term fixed capital requirements of a retail concern as well as the so-called short-term or "working capital" needs. However, since the problem of obtaining and maintaining adequate working capital has always been and perhaps always will be one of the most disturbing to retailers, the remaining comments will be devoted to a brief consideration of a cash income and cash outgo budget, a sample form of which is shown in Table VII. It is evident at a glance that accurate estimates of cash income and cash disbursements of a retail store would be completely dependent upon the accuracy and reliability of the sales and purchase estimates in the merchandise budget and the expense estimates in the expense budget. With that necessary information, the task of determining monthly figures for the twentytwo items in Table VII would be relatively simple, and the retailer would be informed in advance as to his ability to meet his current obligations, to take advantage of profitable cash discounts, and as to his ability to meet the credit requirements of his suppliers and bankers. In short, the use of a cash budget is highly desirable, but only when the records from which it is constructed are adequate and reliable; otherwise the cash estimates would prove more misleading than beneficial. The objection is often raised that many factors, such as style, price, demand, and so on, which influence a retail business are so unpredictable that budgeting should not be attempted. The answer is, of course, that because of that very unpredictability there is added justification for planning. One of the important prerequisites of planning is adequate records-merchandise, expense, financial-the implements with which a retailer "gives an account of himself to himself."

TABLE VII
Skeleton Form of a Cash Income and Cash Outgo Budget


Note: Form suggested by T. C. Sperry of the Lamson Bros. Co., Toledo, Ohio.

## 9. DISTRIBUTION COST CONTROL

Donald R. Longman

THE average business man seems to conceive of "the control of distribution costs" as a process of budgeting, of reviewing actual expenses in relation to budgets, and of arbitrary allocation of predetermined total expense reductions (or possibly increases) among the various elements of expense listed in a profit and loss statement. This is, indeed a form of cost control, possessing merits tested by long experience. It is not my conception of "the control of distribution costs," however, for it is generally an arbitrary process carried out without an objective standard; and it is excecdingly narrow in approach.

As I see it, when we speak of reducing or controlling marketing costs, we are not basically interested in assuring an expenditure of a certain number of dollars or of forcing expenses to a fixed limit in per cent of dollar sales, but, rather, we are concerned with achieving a maximum practical degree of efficiency in distribution. From a purely business point of view, and even from a strict economic viewpoint, it is of no real consequence what the precise dollar figures of selling cost may be, if we can be certain that the whole job is being done with optimum efficiency. It is my thesis that efficiency can be achieved only indirectly (probably accidentally) by chipping away at profit and loss statement figures. To be sure, savings may be made in this way. There is no denying that budgeting is a useful business activity. But it is minor in significance as an approach to the broad issues to be faced if one is to achieve real marketing efficiency and appropriate cost control.

The importance of basic policies. The fundamental issue is the orientation of a company's marketing programme. Let us settle
first the basic policies concerning what we shall sell, to whom sales are to be made, the methods of sale, the channels of distribution, the services to be offered, and the like. If these policies are not soundly and solidly based, overall marketing costs are bound to be unduly high. To what avail is our process of chipping at accounts if our sales cost is high from misdirection in policy? We have no valid standards. We cannot even tell by looking at selling cost records whether expenses are inordinately high or rather low. And should we find them high by contrast with the costs of competitors, we could not tell whether arbitrary expense limitation would solve the problem or compound it.

Perhaps I am unduly sensitive on the point; but my busincss consists in reviewing the marketing and financial problems of scores of manufacturers, wholesalers, and service establishments and offering rescarch and management consulting assistance. The company that has truly planned and tested its marketing orientation through a long, cold, calculating study is rare indeed. The money to be earned and the money to be saved by work in this direction far exceeds any to be gained through those activities normally conceived as constituting "the control of distribution costs."

First among the threc major positive steps toward cost control is the determination of marketing strategy-the orientation of company policy to economic conditions and to the institutional framework of business society. This should be particularly clear today, for we have been and are experiencing some of the most rapid and far-reaching economic and institutional changes in history.

The national income in the United States and Canada doubled within the space of six or seven years and reached a total wholly unanticipated prior to the war. The distribution of income between income groups has altered radically. So also the division of income, regionally and by industry groups, has been completely altered.

These changes, changes in social values, in technology, and in law, have precipitated still other changes in the way people live and work. Higher family real incomes, for example, will almost certainly lead to an altered pattern of consumer expenditures. Many products and services heretofore just outside the reach of the general public, the mass market, will be bought in quantities totally out of relation to past sales. This may be true, for example, of sporting
goods and camping equipment, or the tourist trade. Again, higher real incomes will make the purchase of many products a less serious matter, so that those items will be bought more commonly in secondary shopping or neighbourhood areas.

Similarly, institutional changes are taking place which must materially affect the distribution patterns of thousands of manufacturers. New and effective efforts are being made, for example, to develop efficient, attractive, small retail enterprises in rural trading centres. These small town stores have languished far behind their city counterparts and have lost much of the trade which efficient merchandising for their trading areas would have yielded. The manufacturer or merchandising company who first opens a well-planned, attractive store for the sale of such products as appliances is likely to attain a very strong competitive position in the community. Such a development works in the same direction as high rural family incomes which make careful shopping in distant cities to achieve slight price advantages less essential. Local purchase at an efficient local store would be preferred.

Again, there are broad changes in the range of goods sold in certain types of retail stores. The grocery store has grown to a large super-market, increasingly engaging in the sale of drugs, hardware, and other convenience items. It is becoming a neighbourhood shopping centre, a convenience and impulse goods department store. So also, other retailers are diversifying. Several automobile supply chains are developing virtually Sears-Roebuck or Montgomery-Ward type department stores. Tire outlets are going into the appliance business. Oil companies are moving aggressively into the tire business. Variety stores are beginning to sell highpriced specialty products. Department stores are increasing branch operations in smaller cities and in secondary shopping areas.

The same kinds of illustrations might be given to suggest the rapidity of change in other phases of economic life as they affect marketing. Particular attention must be centred on the rapid changes in production methods and techniques which occurred during the war and which will alter industrial marketing significantly.

Take a cool, calculating look at your industry and its periphery. The trends cited above are altering the kinds of things people buy, the type or location of the store they patronize, the amounts or fre-
quency of purchase, the uses of the product, attitudes toward price, and so on. What do these pressures mean to your buyers, your retailers, your competitors? What is happening to marketing outlets active in your industry? It is interesting to recall the discussions at the American Marketing Association Convention in Chicago in December, 1944. Everyone was full of grandiose expansionist postwar plans which would place his company far ahead of competitors -for each person tended to think of competition in terms of the pattern existing just prior to the war. It is easy to see today that many of these plans are catching up with their originators, for the failure rate is climbing with exceptional rapidity, not in retailing or wholesaling, but in manufacturing.

There are forces at work today threatening to distort completely our past patterns of distribution for hardware, drugs, appliances, automobile supplies, groceries, tires, and still other lines. There will be a time soon when people will suddenly realize that they are thirty years behind and will really set out to merchandise houses, or components of them. It is starting alrcady. Even the merchandising of coal, banking service, industrial products is under way, and my own firm has worked for clients on lines of such varied nature as sail-boats, concrete mixers, and security underwriting service.

It is this field, the field of alignment of marketing policies to the facts of economic life (which I call business strategy) to which one must look first if he is serious about the control of distribution costs. For if buyers no longer regard the product as one deserving intensive shopping and have taken to purchasing it in diversified retail outlets in secondary or neighbourhood shopping areas, retention of old exclusive franchise arrangements with downtown dealers is going to make the manufacturer's selling cost unduly high. This but illustrates a single situation of the many which may and do confront producers today.

Relation of market research to cost control. There is a second part to effective cost control-market research.

The term "market research" is most elastic in practice, to say the least. Technically, however, it may be distinguished from general marketing research and applied to the quantitative approxima-
tion of the size and character of a manufacturer's or an industry's market for specific products or services, under stipulated conditions.

The technique of market research has been developed with great rapidity during the past decade or so. We have in New York, today, and the same holds true elsewhere to a lesser extent, a host of men who are virtually practitioners of the trade. Wellorganized courses of study on the subject are offered by a good many universities. By now, we know some little bit about measuring markets.

But if this technique is to attain maximum effectiveness, it is necessary that we appreciate the full scope of its application. Our need is not simply to determine the size of "the market," but rather to determine the approximate potential sales to be expected under various conditions. What will be the effect of a different price, of selling in a new area, or to a new class of buyers, or for additional uses? What bearing does the channel of distribution, or the package, or the frequency of the salesman's call have upon sales? These are basic questions in marketing; and market research is the specific tool whereby answers are to be found.

It is true, to be sure, that few craftsmen in the field of market research would care to address themselves to such a range of problems as those I have listed with a guarantee of accurate answers in all cases. But it is also true, that a good research technician can improve very greatly upon the guesses on which most business men rely today. And here lies the second answer to the control of distribution costs-the determination of the sales revenues to be expected under different circumstances of operation with their attendant, varied cost patterns.

It should be added that market research does not have to go on all the time any more than it is necessary to make continuous appraisals of marketing strategy. But how many companies ever do a thorough job? How can we say our marketing costs are unreasonable without knowing what income such a pattern of cost (properly directed) should bring?

Distribution efficiency. Finally, let us assume that the strategy is sound and the sales programme keyed to maximum sales. How about the efficiency of marketing performance and the efficiency of our distribution policies?

The achievement of efficiency in marketing may be defined as the achievement of optimum sales with a maximum spread between gross profit and selling costs. Such overall efficiency in its cost aspects is predominantly a function of the degree of efficiency at four different points:
(a) The efficiency of labour in performance of assigned jobs.
(b) The efficiency of operating routines established for performance of the individual jobs.
(c) The degree of utilization of the capacity of plant, equipment and labour.
(d) The efficiency of marketing policy.

To anyone thoroughly familiar with industrial engineering or cost accounting, it is obvious that techniques exist for the measurement in terms of dollars and cents (and that is what counts) of the efficiency of labour, and the costs of sub-capacity operation in the performance of the routinized functions of marketing-order filling, accounts reccivable, grading and sorting, and the like. A fair job of measurement is possible with respect to semi-routinized functions, such as delivery.

It is difficult to go beyond a detailed individual check in cost terms to find undue costs or losses from inefficient performance or sub-capacity operation of such functions as outside sales solicitation. Nor are there currently available means whereby most companies could check the efficiency of operating routines, although such means could readily be developed; the technique is simple if interest were centred on the subject.

There are limitations in this field, for the present at least; but it is still true that a 70 per cent to 80 per cent job of efficiency measurement in terms of cost could be completed. The advantage to be gained by such study has been too often overlooked.

But most people interested in the efficiency of marketing are concerned (usually quite properly) not with operations but with marketing policy. And it is this field which most particularly deserves development and application by business executives, for it concerns the cost of marketing, resulting from the sale of specified products, from sale to particular customers or customer types, from different units of sale, from different transaction types, and the like. This is the field which has been labelled "distribution cost analysis."

There is quite general recognition of the fact that manufacturers, wholesalers, and retailers find it much more expensive to sell some products than to sell others. Indeed, it is this knowledge which induces manufacturers to offer, and distributors to demand, quite different discounts on different products. Similarly, it is admitted that there are matcrial variations in the cost of selling different customers of a single class of trade, customers of similar size but in different trades, customers located in different areas, and so on. We have all heard of the high cost of small orders; and we know, in general, that the cost of selling by mail varies significantly for a single manufacturer from the cost of selling by telephone, through travelling salesmen, or through home office display rooms.

It is possible to determine fairly accurately just how much difference in cost there is and the particular reasons for the difference. To do so requires a careful review of the selling operations of a company and a reclassification of the expense data available in regular accounting records.

One must first put down on a sheet of paper a list of different activities undertaken in marketing. The list will include such things as outside selling, delivery, accounts receivable, order filling, buying, storage, and the like. These are the marketing functions for which men are hired, space is rented, and other costs incurred.

The second step is to determine as precisely as possible the actual amount of the expenses involved in the performance of each func-tion-how much of the salaries, rent, travelling expense, and so on were paid in order to get order filling, or accounts receivable, or storage taken care of.

The third step involves decisions concerning the factors which incerase or decrease the costs of performing each function. It will be found that the factors are generally associated with the products handled or with the customers to whom they are sold. Thus, the cost of outside selling (maintenance of travelling salesmen) tends to vary with the distance salesmen have to travel and the number of calls they must make. As between customers, the greater the amount of travel, and the more frequently they are called on, the more expense is involved. Outside selling expenses may be allocated to customers on these bases. Warehouse handling costs vary as between products on the basis of the number of units handled and
the bulk or weight of the product. Handling costs should be charged to the different products accordingly. Accounts receivable costs vary roughly in direct ratio to the number of orders reccived. Customers who order frequently cause the seller to incur greater costs in handling accounts receivable than customers who place large orders infrequently.

One can go over the entire range of marketing activities in which a company engages and place against each one or two bases of cost variation as between different products or customers. The list should then be reviewed to see whether the list of bases can be narrowed, just to save paper work at a minimum loss of accuracy. Then cost allocations are made by products and for customers. At the end, a profit and loss statement can be set up showing sales, gross margin, itemized functional selling costs, and net profit for each product and/or customer.

The results obtained from such a cost analysis should precede a general review of many of the company's most important marketing policies. It is common to discover that a large number of products and customers are handled at a loss. The reasons become plain after a glance at the profit and loss data. One can then consider possible courses of action-different packaging or promotion of the product, an altered quantity discount scheme, elimination of customers in territories proved too thin to permit direct sale, and the like. There are literally scores of ways evident by which to minimize losses or increase profits, once it is possible to go over fairly precise facts on selling costs by individual (or groups of) products and customers.

The specific procedures followed in cost analysis are somewhat complex and technical; but they have been fairly well developed and tested. They are in use by scores of companies. The field is relatively new; it is somewhat expensive to develop a plan of cost analysis tailored to a particular company's requirements. But the returns are disproportionately great.

If a company is willing once in a while to put some money into real cost control, it is possible, by means of cost analysis, to appraise the effect of marketing policies upon the pattern of sales expense and profit. Thus, a retailer can compare the profits and the details of costs resulting from the sale of comparable sheets, some branded,
some unbranded. A manufacturer can compare the cost and profit results of selling a product in different packages, or with different degrees of advertising support, or at different prices.

Again, the availability of profit and loss statements for individual customers permits a grouping of results whereby comparison can be made of costs and profits from sales to customers in different areas, or in different lines of trade (e.g., hardware, appliance, variety, automobile supply, and department stores).

Properly speaking, cost analysis is the complement of market research. The latter is designed to show the volume of sales income to be expected under different conditions, whereas the former provides detailed statements of the cost of marketing under such conditions. When the two techniques are effectively combined, they show how the probable optimum volume of sales can be attained with the maximum spread between gross profit and selling expense -the very definition of marketing efficiency previously suggested.

The study of marketing stratcgy, meanwhile, introduces a dynamic element. It is directed toward longer range adjustments of marketing policy, to cconomic and institutional changes. It points out the general character of the realignments which will be necessary, long before the more static market research and cost analysis techniques show up the need as immediate. It permits the company to anticipate general trends and so to take action well in advance of the competitor who waits for economic conditions and competitive developments to force changes upon him.

In general, the review of marketing strategy need be comprehensive only once every few years-for broad and deep alterations in the facts of our coonomic life are not quickly made. Market research and cost analysis work, if not carricd on on a small scale almost continuously, should be more frequently undertaken, in order to provide more detailed and specific current evidence of the effect of marketing policy upon sales, costs, and profits.

In summary, it is my judgment that the control of distribution costs does not rest in an arbitrary review of a budget or a profit and loss statement and, without benefit of standards, in a decision to limit this expense or that to specific sums. Rather, it lies primarily in a cold and objective re-appraisal of marketing policy with the aid of (a) a study of marketing strategy; (b) application of market research technique; and (c) use of cost analysis.

# APPENDIX: SELECTED READING LIST 

## BOOKS ON MANAGEMENT RECOMMENDED FOR MARKETING EXECUTIVES

A. The Management Point of View

Barnard, Chester I. The Functions of the Executive. Cambridge: Harvard University Press. 1946.
Gordon, Robert A. Business Leadership in the Large Corporation. Washington: The Brookings Institution. 1945.
Puckey, Walter. What Is This Management? London: Chapman and Hall. 1945.
Roethlisberger, F. J. Management and Morale. Cambridge: Harvard University Press. 1946.
Sheldon, Oliver. The Philosophy of Management. London: Sir Isaac Pitman and Sons. 1923.
B. Management Technique

Fitzgerald, Thomas A. Organization Standards and Practices. (Studies in Business Policy, no. 18.) New York: National Industrial Conference Board. 1945.
Holden, Paul E., Fish, Lonsbury S., and Smith, Hubert L. Top Management Organization and Control. Stanford University: Stanford University Press. 1941.
Knoeppel, C. E. and Seybold, Edgar G. Managing for Profit. New York: McGraw-Hill Book Co. 1937.
Schell, Erwin Haskell. Administrative Proficiency in Business. New York: McGraw-Hill Book Co. 1936.
Williams, John H. The Flexible Budget. New York: McGrawHill Book Co. 1934.
Wiren, Alexis R., and Heyrl, Carl. Practical Management Research. New York: McGraw-Hill Book Co. 1945.
C. Case Histories of Successful Enterprises

Aprel, Joseph H. The Business Biography of John Wanamaker. New York: The Macmillan Co. 1930.
Cadbury Brothers Ltd. Industrial Record: 1919-1939. Privately printed. 1945. Distributed by Sir Isaac Pitman and Sons, London.
Hower, Ralph M. The History of an Advertising Agency; N. W. Ayer and Son at Work, 1869-1939. Cambridge: Harvard University Press. 1939.
Moore, Charles W. Timing A Century; History of the Waltham Watch Company. Cambridge: Harvard University Press. 1945.
D. Marketino Management

American Marketing Association, Committee on Marketing Research Technique. The Technique of Marketing Research. New York: McGraw-Hill Book Co. 1937.
Benge, Eugene J. Manpower in Marketing. New York and London: Harper Brothers. 1945.
Eastwood, R. Parker. Sales Control By Quantitative Methods. New York: Columbia University Press. 1940.
Longman, Donald R. Distribution Cost Analysis. New York and London: Harper Brothers. 1941.
Nolen, Herman C., and Maynard, Harold H. Sales Management. New York: The Ronald Press Co. 1940.
Sevin, Charles H. Distribution Cost Analysis. (United States Bureau of Foreign and Domestic Commerce, Economic Series no. 50.) Washington: United States Government Printing Office. 1946.
Simmons, Harry. Practical Sales Management. New York: Prentice-Hall. 1946.
Thompson, G. Glark. Organization for Marketing Research. (Studies in Business Policy, nos. 12 and 19.) Part I: Industry Experience. Part II: Operating Methods and Company Plans. New York: National Industrial Conference Board. 1945 and 1946.


[^0]:    ${ }^{1}$ See H. R. Kemp, editor, Canadian Marketing Problems, 1939, and Jane McKee, editor, Marketing Organization and Technique, 1940. Both volumes are published by the University of Toronto Press.

[^1]:    ${ }^{1}$ For a fuller explanation of the Chi Square test, including the theoretical derivation see G. U. Yule and M. G. Kendall, Introduction to the Theory of Statistics (London 1937).

[^2]:    *This summary was composed by J. Allan Cook from the lecture and notes of Professor McNair, and was first published in the Commerce Journal, April, 1942.
    ${ }^{1}$ Daniel Defoe, The Complete English Tradesman, First Edition, 1726.

[^3]:    ${ }^{5}$ See also in Table IV: illustration of total goods handled ( $\$ 200,000$ ), mark-up ( $\$ 77,000$ ), per cent of mark-up (38.5), and cost complement (61.5 per cent).

[^4]:    *Data not available. tUsable figures for this item were given on less than $75 \%$ of the reports.
    covered the operations of more than one store. In such cases, the population of the city in which the main store was located was used ${ }^{2}$ Except on real estate.

    $$
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    $$

