COMPUTERIZED MERCHANDISING SYSTEMS

by

Ronald W. Wright

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BY

RONALD W. WRIGHT

APPROVED	DATE
Robert H. Cole	September 28, 1973
Richard M. Bourne	September 28, 1973
Keith L. Broman	September 28, 1973
William G. Dick	September 28, 1973
Melvin D. George	September 28, 1973

SUPERVISORY COMMITTEE

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R. W. W.

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INTRODUCTION

The Nature of the Study

Retailing has been involved in a revolution since the mid-1940s, due to a number of significant changes that have and are still taking place in the environment within which retailers must operate.

A number of external factors such as competition, legislation, increases in the federal minimum wage, growth in personal disposable income, increased leisure time, inflation, and the introduction and increasing popularity of financial institution credit cards, for example, are but a few of the factors which affect the method of operation and the profitability of operations. Some of these constantly changing factors can be controlled to a degree while many of the other numerous factors are much more difficult, if not impossible, to control.

Success in the highly competitive field of retailing is dependent upon the ability of management to analyze current operations, detect trends, and make merchandise decisions involving time, place, and price considerations in an environment that changes with the seasons, weather, fashion trends, and customers. These decisions must result in profitable operations. Retailers must keep abreast of changing conditions both within and outside of the company and adapt the store's policies and

practices to reflect these changes.[1]

In the face of competitive pressures and in pursuit of the mobile customer, suburbanite units have been added by many companies only to discover that this flight to suburban stores with extended hours of operation has brought new problems in inventory control, personnel scheduling, and other related operations. Concurrently, there has been an explosion in the breadth of merchandise lines with the result that the number of stock-keeping-units[2] has multiplied rapidly.

Retail sales volumes have risen in this era of ever-widening consumer influence, yet profit margins have declined or remained stable.[3] In short, the retailer has been caught in a severe profit squeeze and has often reacted by attempting to cut expenses, many times resulting in a loss of control over inventory, sales performance, credit granting and collecting, and other critical activities. But expense control does not mean expense reduction. Rather, it should be thought of as deciding upon and limiting actual expenses to those necessary for maximizing profit.

No problem facing the retailer today is more urgent, more continuous, and more vital to continued existence than effective control of expenses. Control of expenses which permeate every retail enterprise is essential if reasonable profits are to be realized.

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[1]Duncan, Delbert J., Retailing: Modern Concepts and Practices (Homewood, Illinois: Learning Systems Company Division of Richard D. Irwin, Inc., 1970), p. 158.

[2]The lowest level of identification of merchandise by department, store, vendor, style, color, size, and location.

[3]National Retail Merchants Association Controller's Congress, Departmental Merchandising and Operating Results of 1965. (New York: 1966), p. 4.

Profits result from a satisfactory relationship among sales, gross margin,[4] and total expense. Profits may be improved by increasing the gross margin dollars without a proportionate raise in expenses, by reducing expenses without a commensurate reduction in gross margin, or by a combination of these two methods. Accurate information is obviously needed in order to take proper action. Since competitive influences and governmental controls often make it difficult to increase gross margin, it is essential that close control be exercised to minimize expenses and thereby enhance profit possibilities.[5]

Retailers exist to serve present and prospective customers through providing wanted goods and services at the proper time, place, and price. It is clear that retail activities require constant attention, information feed-back, and follow-through to insure effective coordination of all the elements necessary to provide the wanted goods and services to the store's customers at the proper time, place, and price, and by that means produce a profit. As retail companies develop a more complicated structure through the addition of branch outlets, mass merchandising operations[6] and multi-unit organizations, the coordination of retail activities becomes much more difficult to accomplish since size and complexity combine to prevent management from personally experiencing daily contact with

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[4]Gross margin is the amount the actual selling price of merchandise exceeds its cost.

[5]Duncan, op. cit., p. 142.

[6]Mass merchandising is used to describe a method of operation that falls between the traditional discount operations and conventional retailing methods. This method of operation emphasizes the rapid turnover of a broad assortment of fast-moving merchandise through relatively low prices.

the sales area. Visiting and observing the sales area has been the traditional method of assessing performance and the need for any corrective action. In all but the very small retail company,[7] it is becoming necessary for managers to rely more and more on information supplied via various reports in order to effectively carry out the buying, selling, and other related retailing functions.

All retailers, regardless of their size or type of business, require adequate information with which to operate the business. For years, the only resource flows recognized in business enterprises were materials, manpower, and money. Relatively recently, information has been recognized as the other essential process, for without information the other flows of resources cannot take place properly. In the very small business, the owner/operator normally observes and mentally records all needed information. The limited amount of printed information that has historically been produced in small companies has normally been prepared to satisfy the requirement of governmental agencies and financial institutions rather than the needs of the company.[8]

Now, however, the need for information is becoming much more critical, especially for moderately sized and large companies, in view of the extremely keen competition that typifies the current retail industry.[9]

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[7]Of the approximately 1.8 million retail businesses in the United States, nearly 75 percent of all stores employ three or fewer persons. For further information on the size of retail companies see Douglas J. Dalrymple and Donald L. Thompson, Retailing: An Economic View (New York: The Free Press, 1969), Chapter 1.

[8]"World of Small Business," Data Processor, April 1969, p. 12.

[9]Duncan, Delbert J. and Phillips, Charles F., Retailing Principles and Methods (7th ed., Homewood, Illinois: Richard D. Irwin, Inc., 1967), p. 636.

Managers must be supplied with useful, timely, accurate, and pertinent information produced from economically captured data in order to carry out the necessary retailing functions successfully. Now the means of providing this information are available to the retailing industry through the electronic computer and other electronic information handling devices. Recent years have witnessed a real revolution in electronic technology. This new technology has created a number of electronic information-handling tools that are altering the processes of retail management.

But a gap of some magnitude continues to exist between the capabilities of the equipment and the systems available, and their use by retailers.[10] There is an obvious need to equate management information needs and electronic system capabilities.

Justification of the Study

The lack of information and the obscurity that results have always been part of the retail scene. Most retailers have become accustomed to operating with a minimum of operating information. Their competitors have always had the same problem too. While this lack of information was troublesome, it was not vital to the survival of the firm.

Now these conditions are beginning to change. Those firms that are improving their profit picture and obtaining a larger share of the potential market are those that enjoy improved information. Contrary to the beliefs of many earlier students of information processing, it simply is not true that data do not exist in sufficient quantities in retailing;

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[10]Duncan, Retailing: Modern Concepts and Practices, p. 3.

they exist in greater quantities than in any other field of business since retailing generates more transactions per sales dollar than any other industry. True, the data are more difficult to gather and handle, but they are there nonetheless. Until recently, however, there has never been a means to collect the data or to analyze them fast enough to be generated into useful information.

Information problems are being greatly reduced today in those firms utilizing computers and thereby making it possible for management to cope more effectively with the uncertainty surrounding business decisions. Executives are generally eager to find new tools for handling the increasing volume of paperwork, for reducing costs, and for improving the efficiency of operations.

It has long been recognized that management requires a continuing stream of current, accurate information for making vital decisions on a sound basis. In theory, it has always been true that a store's buyers could give management a daily report of stock conditions and what was sold the preceding day. But as a matter of fact, as opposed to theory, this just has not been the case.[11] Many wrong decisions have resulted from insufficiently and inadequately processed information provided under old methods.

Reports must be provided from accurate and timely information which is organized and related to the specific retailing activity. In order to obtain the information when needed, the information system must normally be automated in some fashion to handle the volume of transactions

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[11] "Computers Begin to Solve the Marketing Puzzle," Business Week, April 7, 1965, p. 115.

generated by medium and large retailing operations.

One of the many ways that improved information can be used is to increase the speed and effectiveness with which the reordering phase of retailing operations are carried out. There is a premium on the need to recognize reorder items more quickly than the competition, because the store which reorders first can often beat the delivery squeeze which develops at the manufacturing level and, as a result, obtain most of the early business on the particular merchandise.

Another important task in successfully carrying out the merchandising function is to bring the wanted assortments and selections of goods to the point-of-sale more quickly than does the competition. This puts a premium on speed in getting accurate information, and on speed in making decisions. The speed with which sales data are obtained will contribute to the success of the company. Where markdowns[12] are necessary, it is axiomatic that the sooner they are taken the smaller they are likely to be.[13] Obviously, the merchant who has the tools to spot reorder needs quickly also finds laggards in the same reports.

A store must not only have the right merchandise at the right time, at the right price, and in the right quantities, but it must also have balanced assortments. Failure to achieve scientific balance of stock both loses sales and increases markdowns. Deficiencies in stock balances most often start with the initial buying, or they may result from inade-

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[12]Markdown is any reduction in the retail price of an item after the first price has been placed upon it.

[13]Smith, Bernard W. and Radolf, Herman, "How Machines Improve Merchandising," Journal Of Retailing, Spring 1959, p. 48.

quate filling-in of merchandise, which in turn stems from insufficient or inaccurate sales and stock information.

Another important reason for implementing computerized merchandising systems is their potential for cost savings. In a detailed study released in 1972, Peat, Marwick, Mitchell and Company interviewed 14 variously sized retailers and from these interviews developed some of the first savings estimates, projected over a five-year period, for merchants using computerized merchandising systems: 340,000 to 625,000 dollars for a specialty store with average yearly sales of 10 million dollars; 4 to 6.8 million dollars for a five-branch department store doing 100 million dollars annually in sales; and 7.2 million to 9.1 million dollars for a 200 million dollar 50-store discount company. According to the study the 100 million dollar department store could, for instance, trim personnel expenses by 62,000 dollars a year and equipment and supply costs on the sales floor by 76,000 dollars per year.[14]

If the retailer is to make a profit, thus insuring competitive survival, decisions must be based upon the most timely, accurate, and pertinent information possible within the constraints of cost limitations. The information required can no longer be economically generated by manual or mechanical sources in most companies, but must instead be provided by electronic systems.

Those executives who hesitate to introduce computerized information systems into their firms simply are not recognizing the realities of today. If these executives hope to improve decisions and, hence, the profit

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[14]"Retailers Go Electronic," Business Week, August 19, 1972, p. 38.