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## AN ANALYSIS OF INTERNAL REPORTING SYSTEMS IN COMMERCIAL BANKS

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by تقریق Gordon Van Beek

A Thesis Submitted to the Faculty-of-the School of Graduate Studies in partial fulfillment of the Degree of Master of Business Administration

> Western Michigan University Kalamazoo, Michigan April, 1967

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This thesis is dedicated to my wife, Joyce, whose patience, understanding, support and encouragement made the pursuit of my Master's Degree not only possible, but a rewarding experience.

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Gordon Van Beek

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## Chapter I INTRODUCTION

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The past decade has witnessed many changes in the commercial banking system in the United States and has placed new demands on a bank's internal reporting system. The commercial banks in the United States now face far greater competition than ever before from banks and from other financial institutions in the consumer credit field such as savings and loan companies, small loan companies and credit unions. Electronic data processing has caused a virtual revolution in the banking industry and in our economy in general. Bank customers want better and more varied services. Improved communications have speeded up the tempo of business activity. These developments have created the need for more accurate, complete and current internal reporting systems for all banks.<sup>1</sup>

Management reporting systems for banks can be said to have evolved over the years as a result of three general developments. First, the professionalization of general bank management is proceeding rapidly.<sup>2</sup> This is evidenced by the increasing number of

<sup>&</sup>lt;sup>1</sup>Gordon I. Hamrick, "Are Management Information Systems Practical for Banks," National Automation Conference, (New York: American Bankers Association, 1964), pp. 258-259.

<sup>&</sup>lt;sup>2</sup>J. T. McCarthy, "Designing An Effective Management Reporting System," <u>Reporting Financial Data to Management</u>, American Management Association, (New York: 1965), pp. 19-20.

graduate schools of banking in the United States and the programs, curriculum and certificates offered by these schools.<sup>1</sup>

Second, the use of management reporting systems by bank management reflects the development of new techniques for planning the proper course of action for the organization. Modern techniques aiding bank management range from refinements in financial analysis and planning to the more complicated approach known as operations research.<sup>2</sup> Operations researchers use mathematical models, systems analysis and computer technology to aid in the decision making process.<sup>3</sup> Applications of operations research in banks today include assistance in credit selection<sup>4</sup> and branch bank location decisions.<sup>5</sup> The National Association for Bank Audit, Control and Operation has used operations research to design teller models for

<sup>1</sup>Banking schools in the United States include among others, NABAC School for Bank Audit, Control and Operation, University of Wisconsin: Graduate School of Banking, University of Wisconsin; School of Consumer Banking, University of Virginia and Bank Training Program, University of Michigan.

<sup>2</sup>McCarthy, loc. cit., pp. 19-20.

<sup>3</sup>David B. Hertz, "Implementing an Operations Research Program," <u>Banking</u>, LVIII (March, 1966), p. 47.

<sup>4</sup>H. Martin Weingartner, "Concepts and Utilization of Credit-Scoring Techniques," <u>Banking</u>, LVIII (February, 1966), p. 51.

<sup>5</sup>Kalman J. Cohen, "Risk Analysis and Branch Bank Location," <u>Banking</u>, LVIII (February, 1966), p. 53.

scheduling teller operations. $^{P}$ 

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Third, management reporting systems for banks have stemmed from a widespread recognition by bankers of the vast potential available to them for improving operating efficiencies and profits of their organization.<sup>2</sup> The low rate of return earned by banks when compared with other economic institutions is a problem confronting the commercial banks in our country. The average rate of return on net worth earned by the commercial banks in the United States in 1965 was 8.8% as compared to 13.8% for manufacturing companies, 13.1% for trade companies, 10.8% for public utilities, 14.5% for service companies and 12.1% for sales finance companies.<sup>3</sup> Because of the low earnings in banks, there has been increased activity to improve bank management's ability to plan, control and make better decisions. A higher rate of return and improved overall operating efficiency have been major goals. Improved report availability and usage is one path toward these goals.

#### Functions and Purposes of Reports

Bank reporting systems traditionally have been a record-keeping of historical data. Such reporting systems are not sensitive to the

<sup>1</sup>National Association for Bank Audit, Control and Operation, "NABAC Announces New Tool for Banking," <u>Auditgram</u> XL (November, 1964), p. 46.

<sup>2</sup>McCarthy, <u>loc. cit.</u>, pp. 19-20.

<sup>3</sup>Monthly Economic Letter, First National City Bank, New York, New York, April, 1966, p. 41.

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requirements associated with rapid changes in our economy and in banking operations and do not provide management with much needed current operating data.<sup>1</sup> Data reported to the management and directors of a bank must be current. With the increasing pressures on bank managers all reports must be-"on time" to be useful in the control of the operations of the bank.<sup>2</sup>

Banking management in its daily activities needs a system to maintain or improve communications and control, and to better direct its efforts and thus increase profits. The operating management and directors of a bank need reports to assist them in the decision making process. Reports are also used to determine whether the operations are proceeding according to plans and policies and to measure current performance against past experience and future objectives.<sup>3</sup>

Haggerty<sup>4</sup> states that the following is the foundation of any effective bank management reporting system:

... the recurring periodic report of operating and financial data, usually on both a monthly and an annual basis. Other reports - almost always considered 'special' reports - are necessary to pinpoint a particularly significant management decision, or to motivate (sic) a more detailed report on a specialized function.

<sup>1</sup>Hamrick, <u>loc. cit.</u>, p. 259.

<sup>2</sup>William B. Carr, "Developing Interpretive Reports," <u>Auditgram</u>, XII (October, 1965), p. 14.

<sup>3</sup>Lawrence G. Haggerty, "Top Management Views the Reporting Function," <u>Reporting Financial Data to Top Management</u>, American Management Association, (New York: 1957, pp. 10-11.)

<sup>4</sup>**I**bid., p. 12.

The managers and directors of a bank are interested in the same topics and, although they have different responsibilities, they will receive many of the same reports. Management needs to know whether operations are being conducted; according to the established organization and operating plan of the bank. Management further is interested in knowing whether the controls and safeguards employed by the bank are adequate, whether the desired or budgeted profits are being attained and whether further action is required to assure desired results.<sup>1</sup> It is the function of management reports to provide this information.

The duty of the board of directors in a bank is to direct the operating managers. Their responsibilities lie in seeing that things are accomplished, not in the actual doing.<sup>2</sup> It is up to the directors of the bank to assure that safe and consistent policies for making loans and investments are adhered to. The directors must also assure that the internal controls are good for the detection of present and the prevention of future losses to the bank from unwarranted risk taking, mismanagement or fraud. In exercising this responsibility, the directors need reports to enable them to appraise the financial condition of the bank and determine whether management is effective as reflected in the footings and dollar profits of the bank.<sup>3</sup>

<sup>1</sup>R. C. Huelsman, "Bank Reports.....Management Reports," <u>Auditgram</u>, XXIV (July, 1948), p. 15.

<sup>2</sup><u>A Bank Director's Job</u>, American Bankers Association, (New York: 1964), p. 7.

<sup>3</sup>Jerome E. Winder, "Good Reports Stimulate Action," <u>Auditgram</u>, XXXIII (May, 1957), p. 16.

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The reporting function has been defined as "the yardstick by which actual performance is measured against planned results."<sup>1</sup> Alternatively, reports from "the nerve center of the corporate body, feeding information to the business brains by which decision making and planning are executed.<sup>2</sup> These two definitions are directly analogous to the management-director dichotomy presented above.

The general purposes of reporting systems have been presented by Carter and Kessler.

Once a plan, or a group of plans has been established by management, the information system will retrieve those data necessary for controlling progress toward the goals of the plan. It can summarize deposits, or loans, or yields and compare them to minimum results. It can show up deviations from projected positions, and it can try to isolate or group the causes of failure. If sophisticated enough, it can even evaluate suitable alternatives. No matter to what degree of refinement this monitor is developed, the availability of current data in a meaningful summary form will permit management to assess its position quite accurately and respond with whatever action is necessary.<sup>3</sup>

More specifically, this thesis will postulate the following as purposes of management and director reports:

#### Management Reports

1. To measure profit and progress in relation to plans.

2. To help make day-to-day decisions and control

operations.

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<sup>1</sup>Benedict T. Harter "Organizing and Administering the Reporting Function," <u>Reporting Financial Data to Top Management</u>, American Management Association, (New York: 1957), pp. 18-19.

<sup>2</sup><u>Ibid</u>.

<sup>3</sup>Norman H. Carter and Sigfrid W. Kessler, "Management Information Systems," <u>Banking</u>, LVIII (May, 1966), p. 64.

### **Director Reports**

1. To guide in the evaluation of managerial performance. Ż

2. To provide a base for future strategic planning and long range investments.<sup>1</sup>

To be effective, reports must be presented in such a manner that they will serve as a basis for a thorough review of the operations of the bank. The proper presentation of reports presents a challenge and an opportunity for the control officer or auditor of the bank.

Types of Management Reports

The internal reports to the management and board of directors of a bank can be classified into two general types, operating reports and financial reports. Operating and financial reports include those shown below:<sup>2</sup>

I Operating Reports

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A. Control operating reports

1. Current control reports

- 2. Summary control reports
- **B.** Information operating reports
  - 1. Trend information reports
  - 2. Analytical information reports

II Financial Reports

<u>Operating Reports</u>: The reports provided to the management or directors of a bank which deal with the current operations of the bank are called operating feports. Operating reports are used by the management and

<sup>1</sup>Harter, <u>loc. cit</u>.

<sup>2</sup>David R. Anderson, <u>Practical Controllership</u>, (Chicago, Illinois: Richard D. Irwin, Inc. 1949), p. 216 directors of the bank to maintain direct control over operations or in the formulation of plans or policies. They can be of two types, control operating reports and information operating reports. Operating reports are of various types but the basic operating report provided to management and the board of directors is the profit and loss statement which summarizes in statement form the results of operations for the past period whether it be a month, quarter or year.

<u>Control operating reports</u>: Reports intended to assist in the control of operations by indicating specific areas, departments or branches which need corrective action are called control operating reports. Control operating reports can be of two types, current control reports and summary control reports.

<u>Current control reports</u>.--Reports used to control the daily affairs of the bank and to spot deviations from planned performance so that prompt action can be taken to prevent losses are called current control reports. Current control reports include past due loan reports and the auditor's report.

<u>Summary control reports</u>.--Reports summarizing the actual operating performance of the bank over a longer period of time, usually a month or a quartér, are called summary control reports. Comparative income statements plus budget comparisons, net income in total and net income and dividends per share are types of summary control reports.

Information operating reports: Reports comparing the results of any

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specific operation or department over a period of months or years or setting forth general information on the operations of the bank are called information operating reports. Information operating reports present to management or the board of directors facts which have an important bearing on business plans and policies and are used mainly for planning and policy determination. Trend information reports and analytical information reports are types of information operating reports.

<u>Trend information reports</u>.--Reports intended to compare the results of the same activity over a period of time to bring to light certain specific facts which should be known such as growth or improvements in operating efficiency are called trend information reports. The primary purpose of trend information reports is to indicate trends which management can use in planning the operations of the bank. Graphs and reports portraying and setting forth total deposits, capital and assets of the bank and departmental and branch activity over time are types of trend information reports.

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<u>Analytical information reports</u>.--Reports which present general information on the operations of the bank and which compare results of the same activity or operation in different locations, departments or branches of the bank are known as analytical information reports. The primary purpose of analytical information reports is to provide management and the board of directors details on certain general areas of operations and to serve as a measure of the operating efficiency of individual

branches or departments as opposed to other branches or departments within the bank. Branch and departmental statistics and figures for specific operations often reflect successes or failures on the part of the branch manager to attain the expected efficiency.

<u>Financial Reports</u>: The reports provided to the management and board of directors of a bank which deal with the current financial condition of the bank or its various divisions or sections are called financial reports. In modern banking, the management and board of directors act as trustee over the capital and deposits they employ for banking operations and are responsible to the true owners of the capital and deposits, the stockholders and depositors. Financial reports assist management in making a record of its successes or failures in the use of the capital and deposits.

The balance sheet, or statement of condition as it is more commonly called in banking, is the basic financial statement provided to the management and directors of a bank. The statement of condition is a detailed listing of the asset and liability accounts as **shownonthe** books of the bank. It shows the current financial condition of the bank on a given date. Supplementary to the statement of condition report, it is necessary to make available to management and the board of directors

<sup>1</sup>J. Brooks Heckert and James D. Wilson, <u>Controllership</u>, (New York: The Ronald Fress Company, 1964), pp. 527-529.

certain other reports of a financial nature. Statements setting forth use of funds, reports of changes in the financial condition of the bank from one period to the next and reports providing various comparisons with other banks of similar size assist management and the board of directors in determining how effectively the funds provided by the stockholders and depositors are being used.

It is very important that the operating reports and the financial reports are not considered as separate and independent. Although operating reports measure earnings and financial reports corporate success and growth in the use of equity and deposits, these two general types of reports must be analyzed and studied by management and the board as a whole. A bank with large total assets as shown in the financial reports may not be making a satisfactory income as shown in the operating reports. By studying both types of reports, the operating feports and the financial reports, it is possible for management and the board to determine that maximum use is being made of all assets to earn a satisfactory rate of return for the stockholders.<sup>1</sup>

### Significance and Focus of the Study

This study investigated the use of management and directors reports in commercial banks. Emphasis was placed on the type and number of reports used by the management and directors of the bank.

<sup>1</sup>Anderson, <u>loc. cit.</u>, p. 289.

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If bank management is to better utilize the resources of the bank to improve revenues and respond to external and internal pressures, timely reports are needed. Reports are used to direct and control the operations of the bank and are significant in the overall operations of the bank.

The National Association for Bank Audit, Control and Operation has supplied a list of reports deemed necessary for proper bank management. This list includes both management and board of directors reports.

An ideal reporting system is selected in Chapter II. The predictive value of this ideal reporting system is tested to determine whether there is any significance between the developmental state of the reporting function in a commercial bank and the dollar earnings or footings of the bank.

## Definition of Terms

<u>Management</u>: The management of a bank will be used throughout to refer only to the operating officers of the bank who are responsible for the operations and financial condition of the bank.

<u>Board of Directors</u>: The board of directors of a bank are a body of persons elected by the stockholders of the bank to direct, regulate and guide the affairs of the bank. Operating officers may or may not be on the board.

Management Reports: Management reports are those reports or

statements prepared to provide the president, vice president(s), executive vice president(s) and other officers of the bank with vital information for the planning, execution and control functions of a bank.<sup>1</sup>

<u>Directors Reports</u>: Directors reports are those reports or statements prepared to provide the directors of the bank with vital information for the planning, execution and control functions of a bank.<sup>2</sup>

<u>Federal Reserve Member Banks in Michigan</u>: Federal Reserve member banks are all banks in the State of Michigan which are, by their own choice, members of the Federal Reserve System.

<u>Cash method of accounting</u>: The cash method of accounting as used in commercial banks is a method of accounting whereby interest and other income is accounted for when it is actually received in cash and expenses are taken into account when the cash is actually paid out.

<u>Accrual method of accounting</u>: The accrual method of accounting as used in commercial banks is a method of accounting whereby interest and other income is taken into account when earned regardless of when it is actually collected and expenses are taken into account as soon as the liability is incurred regardless of when the cash is paid out.

<u>Footings of a bank</u>: The footings of a bank are the total assets of a bank and include cash, loans, investments and banking house.

<u>Tellers differences</u>: Tellers differences are cash overages and shortages of the tellers of the bank.

<sup>1</sup>Ronello B. Lewis, <u>Accounting Reports for Management</u>, (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1957), p. 65.
<sup>2</sup>Ibid.

### Chapter II

#### RESEARCH DESIGN AND METHODOLOGY

It has been stated in Chapter I that reports are necessary for effective bank management. A closer look at reporting systems is in order here.

### Ideal Reporting System

Reporting requirements for the management and board of directors of a bank are many and varied. The reports to the management in a bank usually consist of operating figures and results as compared to the operating budget or objectives; analyses of condition at given dates, usually month end or year end; projections and forecasts and countless other reviews, ratios and statistics needed by management to help them keep abreast of ever-changing economic and other factors affecting the bank and the economy.<sup>1</sup>

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The board of directors is primarily interested in the net results of operations and in any trends that can be analyzed and studied. They are not interested in and should not be burdened with reports consisting of details and minor operating statistics. Reports to the board of directors should be planned so that the directors are provided information in a uniform manner which will enable them to appraise the following:

<sup>1</sup>Edward F. Pedlowe, "Reporting to Management," <u>Auditgram</u>, XXVIII (April, 1951), p. 19.

(1) the correctness of internal controls in audits, (2) the financial results of operations as reflected in the condition of the bank, (3) the growth and earnings of the bank and (4) the loans and investments that have been made.<sup>1</sup>

The reports for the management and directors of a bank should consist only of those deemed necessary for effective management. These reports will necessarily vary in different banks but the following have been recommended by a national organization as a minumum:<sup>2</sup>

#### Management Reports

1. Comparative statement of condition and income report.

- 2. Past due loan report.
- 3. New loan and commitment report.
- 4. Significant loan payoff report.
- 5. New and closed deposit account report.
- 6. Departmental and branch report.
- 7. Bond portfolio report.
  - 8. Bond purchase and sale report.

These reports include those needed by management to properly manage the operations of the bank and operate the bank on a day-today basis. The purpose and use of each report is discussed briefly in the following paragraphs.

<sup>L</sup>Winder, <u>loc. cit.</u>, p. 16.

<sup>2</sup>National Association for Bank Audit, Control and Operation, <u>NABAC Manual</u>, (Park Ridge, Illinois: 1963), p. 80. 1. Comparative statement of condition and income report: A comparative statement of condition shows the financial condition of the bank on a certain date as reflected in a detailed listing of the assets and liabilities. The current financial position is generally compared to the same date a month or year in the past to indicate changes that have taken place. A comparative statement of income is a detailed listing of the revenue and expense accounts of the bank arranged to show all transactions affecting the stockholders equity except dividends or changes in capital. Income and expense statements must be prepared for all levels of management for use in controlling expenses.<sup>1</sup>

Management uses comparative statements of condition to analyze the financial position of the bank. Statements of condition are also used to determine growth and in long range planning and policy determination. Comparative income statements reflect the results of operations. They are used to evaluate earnings and determine whether current earnings are sufficient to attain anticipated or desired earnings.

2. Past due loans report: Reports on the past due loans in the loan portfolio of the bank provide management with information on the potential losses of the bank through bad debts. Not all loans reported as past due will be losses but through the past due loans report management can gain insight into the past due status of the bank's loans and evaluate

<sup>&</sup>lt;sup>1</sup>E. H. Brunken, "Profit Planning Requirements and Benefits," <u>Auditgram</u>, XL (February, 1964), p. 12.

the collection work of the bank. Past due loan data is used by management in making loaning plans and policies.

3. New loan and commitment report: Reports on new loans and commitments enable management to plan future loan and investment policies. If loan volume is increasing as reported in the new loan and commitment report, management can re-evaluate its investment policies and plan for funds to meet an increasing loan volume.

4. Significant loan payoff report: Significant loan payoff reports are used in the opposite manner from new loan reports. Large loan payoffs result in available funds for other uses. Management can plan to invest these funds given the information received from a loan payoff report. Large payoffs may also result in a change in loaning policies.

5. New and closed deposit account report: Reports on new and closed deposit accounts provide management with information on the time and demand deposit accounts of the bank. These reports are used to inform management of new deposit accounts and deposit accounts which are closed and give management information which is used to evaluate the deposit function of the bank.

6. Departmental and branch report: Reports on departmental and branch operations are used by management to evaluate specific branches or departments. It is the purpose of such reports to point out successes or failures of the department head or branch manager in certain operations and to serve as a guide to the appraisal of the branch manager or depart-

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ment head.

7. Bond portfolio report: Bond portfolio information including a listing of bonds, both U. S. Government and Municipal, by maturity, concentration and yield gives management a breakdown of the investments of the bank. Management uses bond portfolio reports to determine that the quality of the bonds in the portfolio is in accordance with the investment policy of the bank and that the yield is the maximum obtainable under existing standards of the bank.

8. Bond purchase and sale report: Data on bond purchases and sales is provided to the management of a bank so they are informed of and can approve all purchases and sales. Management is directly responsible to the board of directors for all bond purchases and sales and must have knowledge of all such transactions.

#### Director's Reports

- 1. Comparative statement of condition and income report.
- 2. Past due loan report.
- 3. New loan and commitment report.
- 4. Significant loan payoff report.
- 5. Bond portfolio report.
- 6. Bond purchase and sale report.
- 7. Analysis of undivided profits account.
- 8. Tellers' differences reports.

9. Officer and director loan report.

10. Auditor's report.

11. Reports on operating highlights of the year.

These reports include those needed by the directors of the bank to direct the overall affairs of the bank. The purpose and use of each report is discussed briefly in the following paragraphs.

1. Comparative statement of condition and income report: Comparative statements of condition listing the assets and liabilities of the bank provide the directors with data on the financial position of the bank as of a certain date. Directors are responsible for and must maintain general supervision over the financial position of the bank. The comparative statement of condition provides the board of directors with the necessary financial data. Comparative income statements provide the directors summary figures on the operating results of the bank for the past period. In guiding the bank's activities the directors are expected to foster policies which will produce a reasonable return on the investment of the stockholders. Income statements assist the directors in measuring the earnings of the bank to determine whether or not the earnings are at the budgeted or hoped for level.

2. Past due loan report: Past due loan reports assist the directors in making policies and in evaluating the loan policies and collection procedures of the bank.

3. New loan and commitment report: Reports to the directors on

new loans and commitments enable the directors to approve the loans that have been made by the bank and inform them of loan commitments. Only the larger loans are reported because of the volume. Even though the actual making of loans is delegated to others, the directors cannot escape responsibility for these loans. Reports on new loans give the directors the necessary information to approve the loans.

4. Significant loan payoff report: Significant loan payoffs reported to the directors inform them of assets which must be invested. In order to maximize earnings, the directors must make certain all available assets are invested. Large loan payoffs indicate available assets which the directors must determine are invested immediately.

5. Bond portfolio report: Reports listing bonds by maturity, market and yield give the board of directors a breakdown of the bonds held by the bank. A bank's investment policy as reflected in its bond portfolio is the responsibility of the board of directors, even though authority for specific transactions is delegated to someone else. Reports on the investment portfolio of the bank enable the directors to keep informed on the bond investments of the bank.

6. Bond purchase and sale report: Bond purchases and sales as reported to the board of directors enables the board of directors to approve all such transactions. Bond investments are the responsibility of the board and reports on purchases and sales of bonds enables them to exercise this responsibility and approve all such purchases

and sales.

7. Analysis of undivided profits account: An analysis of the undivided profits account gives the directors sufficient data on extraordinary debits and credits to this account so they can approve such transactions. State and Federal regulatory authorities regularly review the undivided profits account during the yearly bank examination. They determine whether any extraordinary transactions have been made which would increase or decrease it and whether all transactions have been approved by the board. All banks should report to their directors in summary form all transactions that have taken place in the capital and undivided profits account during the year.<sup>1</sup>

8. Tellers' differences reports: Reports on tellers' differences inform the directors on the efficiency and accuracy of the tellers and enables the directors to appraise this area of the banks operations to determine whether it is operating efficiently and effectively. The board approves charging these overages and shortages against the current earnings of the bank, based on this report.

9. Officer and director loan report: Reports on loans to officers and directors enables the directors to review and approve such loans to determine whether they are in accordance with Federal Reserve regulations on loans to bank executive officers. The directors are

<sup>&</sup>lt;sup>1</sup>John H. Myers, "Accounting for Bank Capital," <u>Auditgram</u>, XLI, (September, 1965), p. 10.

responsible for all loans and investments and are responsible for the administration of the loan policy of the bank.

10. Auditor's report: The auditor's report to the board of directors informs the board of the audits performed by the auditing staff and contains recommendations and corrections as recommended by the auditor based on his audits. Bank directors are legally required to have all assets and liabilities of the bank examined and audited not less than once each year. The auditor's report informs the board which assets and liabilities were audited.

11. Reports on operating highlights of the year: Reports on the summary operating highlights of the year inform the directors on the results of operations and assist them in determining whether the results are satisfactory. Trends and growth can be analyzed from the reports and overall bank management can be appraised from an operating standpoint.

#### The Hypotheses

Meaningful and timely information reported to the managers and directors of a bank has an economic benefit to the bank in the form of more profits.<sup>1</sup> The underlying assumption of this thought is that informed judgment leads to better decisions and better decisions ultimately result in more profits.

<sup>1</sup>Carter and Kessler, <u>loc. cit.</u>, p. 44.

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Because of the multitude of tasks necessary for the conduct of business in a commercial bank the information reported to the managers and directors must be complete and cover a variety of purposes. This is particularly true in large banks where there are numerous groups of people within the bank who require different sets of information in different forms at different times. This need for more information in large banks has created a need for more internal reports for these banks.

The following two hypotheses were chosen for this study because they are the two basic assumptions underlying the work in bank communications and are of ubiquitous interest:

1. Federal Reserve Member Banks in the State of Michigan which use the management and directors' reports listed above have higher earnings as a percent of total assets than banks which do not use these reports.<sup>1</sup> The greater the number of reports they use, the higher are the earnings of the bank.

2. Federal Reserve Member Banks in the State of Michigan with larger total footings use more management

<sup>&</sup>lt;sup>1</sup>The rate of return on assets rather than the rate of return on investment is used because bank earnings are not measured by rate of return on plant, equipment and working capital, i.e., investment, but by rate of return on available funds, i.e., deposits and liabilities. In actuality, deposits and liabilities equal assets and data on assets is available.

and directors' reports than do smaller banks. The larger the footings, the more reports they use.

#### Research Strategy

The overall purpose of this study was to explore the significance of the reporting function in commercial banks and provide the banking industry with an empirically tested reporting system. Functions, purposes and types of reports were analyzed. Reporting systems as determined by analysis of the questionnaires were evaluated.

An ideal reporting system was selected based on reports supplied by the National Association for Bank Audit, Control and Operation. The ideal reporting system was compared with the actual reporting systems in use in commercial banks today. Present day report usage was established through questionnaires mailed to all member banks of the Federal Reserve System in the State of Michigan.<sup>1</sup> The returns were compiled and analyzed by an IBM 1620 computer in the Computer Center at Western Michigan University, Kalamazoo, Michigan. The results of the questionnaires were correlated with differences in bank earnings and differences in bank size.

The data in this study was collected through the use of a survey questionnaire. The survey method used obtains, by the simplest method possible, identical information from all banks surveyed.

A sample of the questionnaire can be found in Appendix B-1 and B-2.

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Two sets of questionnaires were used, one requesting, data on management reports, the other requesting data on directors' reports. All of the questions used in the questionnaires were multiple choice questions except the last question on the management reports questionnaire which was a fill-in-the-blank question. The multiple choice question is considerably less confusing for both the data collection and analysis and thus is preferable in this type of study. All of the questions were based on the ideal reporting system. The returned questionnaires were edited to check for deletions and errors.

The standard form of the questionnaire ensured uniformity in recording responses. The wording of the questions, the order of the questions and the standardized instructions for recording responses assisted in obtaining uniform responses from all respondents.<sup>1</sup>

The questionnaires took less skill to administer than a personal interview and were mailed to the respondents with a minimum of explanation. Moreover, because they took less skill and time to administer, the entire population was included in the study and no sampling was necessary.

Enclosed with each set of questionnaires was a covering letter. The individually signed covering letter gave the appearance of a personal letter and included limited instructions regarding the completing and returning of the questionnaires. Each covering letter was

<sup>L</sup>Claire Selltiz<u>et al.</u>, <u>Research Methods in Social Relations</u> (New York: Holt, Rinehart and Winston, 1964), p. 239.

individually addressed with the bank name, city, postal zone and state.

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The banks surveyed in the study are located in the upper and lower peninsulas of Michigan. The banks located in the upper peninsula are in the 9th Federal Reserve District, while those in the lower peninsula are in the 7th Federal Reserve District.

## Limitations of The Study

The questionnaires were designed to ensure uniformity in recording responses. The questionnaire method of data collection prohibits the investigator from offering any type of explanation on the questions so some of the questions may have had different meaning for different people. Some of the questions may have been interpreted incorrectly by some respondents. All of the responses were none-the-less considered equally valid.

All information obtained was limited to responses to predetermined questions. No alternative methods of recording responses were available nor was there any opportunity to elicit additional information.

The questionnaire on management reports requested a 1964 earnings figure for the responding bank. Because of the confidential nature of the earnings figure some questionnaires were returned without providing this figure. To detect any bias in returns, the returns with earnings were compared with the returns without earnings using chi-square. The null hypotheses was tested to determine whether these responses could be taken as representative. 'A similar test was made to uncover any

bias in disclosed or not disclosed earnings.

The accuracy of the earnings figure given in the questionnaire was compared with data received from the Federal Reserve Bank of Chicago.<sup>1</sup> The assumption that the returned questionnaires were an unbiased sample of all Federal Reserve member banks in Michigan was tested using chi-square.

It is conceivable that returns could be biased in favor of smaller or larger banks. The frequency distribution of the respondent banks was compared to the total population using chi-square to uncover this bias if present.

Branch banking is authorized in the State of Michigan. It is not known whether banks with branches require more internal reports than banks without branches. It is also not known whether the number of branches a bank has influenced the reporting system. No reference was made to branches in the questionnaire and hence was not directly a part of the study.<sup>2</sup>

This study presents an analysis of the reporting systems of the member banks of the Federal Reserve System in the State of Michigan.

Letter from Mr. Thomas D. Novak, Statistics Section, Federal Reserve Bank of Chicago, January 20, 1966.

<sup>2</sup> It is likely that branches are more prevalent among larger banks and less frequently used by smaller banks. The findings related to bank size may be interpreted from this perspective but the validity of such an interpretation is unknown.

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Generalizations from this study to any particular bank must consider the environment in which the bank operates. Some of the more important factors would include rural-urban, industrial-agricultural and steadyseasonal cash flows.

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## Chapter III FINDINGS

Qestionnaires were sent to the 211 Federal Reserve member banks in the State of Michigan. The total number of banks in Michigan is 365; therefore, questionnaires were sent to 57.8% of all of the banks in the State. The 211 member banks in the State of Michigan have total deposits of \$9.8 billion out of total member and non-member bank deposits of \$10.5 billion.<sup>1</sup> This means that banks having 94% of the total deposits in the State of Michigan were represented in the survey. Completed returns were received from 171 banks, 81.0% of those sent out, and representing 46.9% of the total number of banks in the State of Michigan.

The first letter and set of questionnaires mailed October 29, 1965, brought 128 returns. The follow-up letter and set of questionnaires mailed November 19, 1965, produced 43 more for a total of 171 returns or 81.0% of the population. December 15, 1965, was selected as the cut-off date in regard to returned questionnaires. No questionnaires were received after that date.

#### Tests for Bias

The following tables summarize the data used to test the returned questionnaires for bias. The four tests for bias are as follows:

1. Bias in favor of smaller or larger banks.

Michigan Statistical Abstract, 1964, (East Lansing, Michigan: 1964), p. 269

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2. Bias in disclosed or not disclosed earnings based on report usage.

3. Bias in returns reporting earnings as compared with returns not reporting earnings.

4. Bias in returns reporting earnings as compared to actual distribution of earnings in the total population.

Table 1 shows the number of questionnaires sent and returned by banks of different sizes. The percent returns by bank size varied from 67% to ...99% with no discernible bias. Chi-square was calculated and found to be ...91 (P>...95), indicating that no bias was in fact present.

Bank (In Millions of \$)	Number Mailed	Number Returned	% Number Returned
Under 10	83	70	84
10 - 24	71	55	77
25 - 49	23	19	83
50 - 99	12	8	67
100 - 499	16	13	81
500 and over	6	6	<u>100</u>
TOTALS	211	171	81

#### Returned Questionnaires Received

Table 1

Table 2 summarizes the report usage for banks reporting and not reporting earnings. A general pattern of slightly more than one-half of the responding banks using each named report gave their earnings data. No significant divergence from this pattern is visible. Chi-

square was used to test this opinion and was found to be 9.828 (P>.99).

On this basis no significant bias was deemed present.

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## Table 2 Report Usage and Non Usage for Banks Reporting and Not Reporting Earnings

-	No. of Banks Reporting Earnings Jsing Reports	No. of Banks Not Reporting Earnings Using	No. of Re- sponding Banks Using Report
		Report	
Management Reports:	······································	······································	
<ol> <li>Comparative state- ment of condition</li> </ol>	99	59	158
2. Comparative income statement	104	56	160
3. Past due loans with collection status	105	56	161
<ol> <li>New loans and com- mitments of material amount</li> </ol>	97	58	155
5. Significant loan payof	fs 48	25	73
<ol> <li>New and closed deposition accounts with reasons for closing</li> </ol>		32	97
<ol> <li>Departmental and branch accounting in formation</li> </ol>	- 24	11	35
8. Bonds by maturity con- centration and yield	- 74	42	116
9. Bond purchases and sales	98	55	153

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Type of Report	No. of Banks Reporting Earning Using Reports	No. of Banks s Not Reporting Earnings Using Report	No. of Re- sponding Banks Using Report
Directors Reports:			· · · · · · · · · · · · · · · · · · ·
1. Comparative state- ment of condition	104	60	164
2. Comparative income statement	88	48	136
3. Pastdue loans with collection status	98	51	149
4. New loans and com- mitments of material amount	102	59	161
5. Significant loan payo	ffs 36	20	56
<ol> <li>Bonds by maturity man and yield</li> </ol>	ket 68	35	103
7. Bond purchases and s	ales 102	58	160
8. Analysis of undivided profits account	80	48	128
9. Tellers' differences reports	64	39	103
10. Loans to officers an directors	d 97	52	149
11. Auditor's report	66	43	109
12. Net income in total	106	57	163
13. Net income and dividends per share	88	48	136
14. Gross loans and in- vestment yields by t	ype 52	28	80
<pre>15. Total deposits, capi and assets X<sup>2</sup> = 9.828 P&gt;.99</pre>	tal 103	57	160

Table 2 - continued

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Table 3 summarizes the banks by size that reported and that did not report earnings. A slight trend is seen for the smaller banks not to report earnings as often as the larger banks. This trend was tested using Chi-square and found to be very strong. Chi-square measured 1.54 and the probability of both sets of data coming from the same population was greater than .90. On this basis it was decided that no significant bias was present.

#### Table 3

Responding Banks Reporting

Bank Size (In Millions of \$)	Banks Reporting Earnings	Banks not Reporting Earnings
Under 10	41	29
10 - 24	34	21
25 - 49	13	6
50 - 99	6	2
100 - 499	10	3
500 and over	5	<u> </u>
TOTALS $X^2 = 1.54 P$ .90	109	62

and Not Reporting Earnings by Size

Table 4 summarizes the frequency distribution of occurence of banks by per cent of earnings for those that responded to this study and those listed by the Federal Reserve System. No discernible bias was present for either more or less profitable banks. Chi-square was measured at .889 yielding a P>.95. Therefore, it was decided that no significant bias was present.

Table 4	
Net Current Earnings Before Taxes to Total Assets	•

Earnings Range (Per Cent)	Per Cent of Banks (Sample)	Per Cent of Banks (Federal Reserve Data)
1. 0 and less	. 0	.57
2.0 through .49	2.75	2.87
350 through .99	30.28	32.18
4.1.00 through 1.49	48.62	47.14
5.1.50 through 1.99	16.51	14.94
6.2.00 through 2.49	1.84	2.30
7. Over 2.50	0	0
TOTALS	100.00	100.00
$X^2 = .889 P > .95$		

By Selected Ranges

On the basis of these tests it was felt that no significant bias appeared in the reported data. The returned questionnaires were therefore used as source data. These data and their meaning will be presented and discussed below.

#### Earnings In Relation to Report Usage

The following tables present management report usage for responding banks **class**ified by earnings. One hundred nine banks responded to the questionnaire reporting earnings. For this reason there are fewer recorded returns than under the "footings in relation to report usage" section.

Table 5 is a summary of the banks that provide management with comparative statements of condition and **comparative** income statements.

These are the two basic statements of any management reporting system and are needed by management to properly evaluate and control the operations of the bank.

#### Table 5

Banks Providing Comparative Statements to Management

	Type ofEarnings of Responding Banksstatement(% of Total Assets)						
		0- .49	.50- .99	1.00- 1.49	1.50- 1.99	2.00- 2.49	Total
1.	Comparative statement of condition	3	29	48	18	2	100
2.	Comparative income state- ment	3	30	53	18	2	105
	Total Returns	3	33	53	18	2	109

Three of the questions on the management reports questionnaire dealt with loan reports. Table 6 is a summary of the banks that report loan data to management. Loan reports enable management to evaluate the loaning operations and the loan portfolio of the bank to determine that it is operating within the policies in effect in the bank.

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Table	6
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Type of Report			Earnings of Responding Banks (% of Total Assets)				
		0- . 49		1.00- 1.49	· ·	2.00-2.49	Total
1.	Past Due Loans of material amount with collection status	3	31	50	18	2	104
2.	New loans and commitments of material amount	3	30	40	15	2	90
3.	Significant loan payoffs	3	18	19	10	2	52
	Total Returns	3	33	53	18	2	109

Banks Reporting Loan Data to Management

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Table 7 summarizes the banks that report bond data, new and closed deposit accounts and departmental and branch accounting in-formation to management.

Tables number 8 through 12 present director report usage for responding banks. Banks are again classified by earnings.

Table 8 is a summary of the responding banks that provide their directors with comparative statements of condition and comparative income statements. These are the two most important reports in any bank accounting and reporting system.

	oe of oort	Earnings of Responding Banks (% of Total Assets)					
		050- .49 .99	.50- .99	1.00- 1.49	1.50- 1.99	2.00- 2.49	Total
1.	New and closed deposit accounts with reasons for closing		23	33	18	1	78
2.	Departmental and branch account- ing information	12	8	14	3	0	27
3.	Bonds by maturity concentration and yield	; 2	23	41	10	1	77
4.	Bond purchases and sales	3	27	51	16	2	88
	Total Returns	3	33	53	18	2	109

Table	7

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Banks Reporting Bond Data and General Data to Management

Table 8

Type of Statement			Earnings of Responding Banks (% of Total Assets)				
	-	0- .49	,50- .99		1.50- 1.99		Total
1.	Comparative statement of condition	2	30	50	13	1	96
2.	Comparative in- come statement	3	25	46	17	2	93
	Total Returns	3	33	53	18	2	109

Banks Providing Comparative Statements to Directors

Loan reports were dealth with in three questions on the director's reports questionnaire. Table 9 summarizes banks that report past due loans, new loans and significant loan payoffs to the directors. Loans and discounts represent the largest single group of assets in the statement of condition and merit considerable attention in a reporting system.

	pe of port	Earnings of Responding Banks (% of Total Assets)								
		0- 49	.50- .99	1.00- 1.49	1.50- 1.99	2.00- 2.49	Total			
1.	Past due loans of material a- mount with collection status	1	29	50	17	1	98			
•	New loans and commitments of material amount	2	30	49	15	2	98			
3.	Significant loan payoffs	3	14	14	8	1	40			
	Total Returns	3	33	53	8	2	109			

Banks Reporting Loan Data to Directors

Table 9

Bond data is reported to the directors of the responding banks as illustrated in Table 10. The directors of a bank are responsible for the investments of the bank and must be kept informed of all bond data to exercise this responsibility.

Table 10	10
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	pe of port	Earnings of Responding Banks (% of Total Assets)								
		0- .49	.50- .99	•	1.50- 1.99	2.00- 2.49	Total			
1.	Bonds by maturi- ty, market and yield	<b>2</b>	27	40	10	0	79			
2.	Bond purchases and sales	1	31	53	16	1	102			
	Total Returns	3	33 <sup>°</sup>	53	18	2	109			

Banks Reporting Bond Data to Directors

Various general reports as provided to the directors were dealt. with in four questions on the directors' reports questionnaire. Table 11 summarizes banks that report general data to the directors.

Type of Report	Earnings of Responding Banks (% of Total Assets)							
	0- .49	.50- .99	1.00- 1.49		2.00- 2.49	Total		
<ol> <li>Analysis of un- divided profits account</li> </ol>	3	24	38	14	2	81		
2. Tellers' differ- ences reports	2	21	31	12	1	66		
3. Loans to officers and directors	2	31	49	15	2	99		
4. Auditor's report	3	22	32	10	1	68		
Total Returns	3	33	5,3	18	2	109		

Table 11Banks Reporting General Data to Directors

Operating highlights of the year including net income in total, net income and dividends per share, gross loans and investment yields by type and total deposits, capital and assets were dealth with in four questions in the directors' reports questionnaire. Table 12 is a summary of the responding banks that report operating highlights of the year to the directors.

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	· .	To Directors								
	pe of port		Ea		Respond	ing Banks ts)	5			
		0- .49	.50- .99	1.00-	1.50- 1.99	2.00- 2.49	Total			
1.	Net income in total	3	22	32	10	1	68			
2.	Net income and dividends per share	2	23	51	18	2	96			
3.	Gross loans and investment yields by type	1	18	28	9	0	56			
4.	Total deposits, capital and assets	3	31	52	18	2	106			
	Total Returns	3	33	53	18	2	109			

Banks Reporting Operating Highlights of the Year To Directors

Table 12

#### Footings In Relation to Report Usage

The following tables present management report usage for responding banks. Banks are classified by size. 40

Table 13 is a summary of the banks that provide management with comparative statements of condition and income. These are the two basic accounting statements of a bank and are used to inform management on the results of operations and the financial condition of the bank.

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#### Table 13

#### Banks Providing Comparative Statements

Type of Report	Footings of Responding Banks (In millions of dollars)								
	Under 10	10- 24	25- 49	50- 99	100- 499	500 and over	Total		
1. Comparative statement of condition	65	51	16 ,	8	12	6	158		
2. Comparative income state- ment	63	53	17	8	13	6	160		
Total Returns	70	55	19	8	13	6	171		

#### To Management

Loan reports were dealt with in three questions on the management reports questionnaire. Table 14 is a summary of the banks that report specific types of loan data to management.

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	be of bort		• •		-		ponding H of dollar	_	
	·	Under 10	-10- 24		50- 99	,	500 and over	Total	
1.	Past Due Loans of material a- mount withscols: lection status	62	54	19	8	12	6	161	
2.	New loans and commitments of material amount	59	52	17	8	11	6	155	
3.	Significant loan payoffs	21	23	9	<b>7</b> ·	9	4	73	
	Total Returns	70	55	19	8	13	6	171	

Banks Reporting Loan Data to Management

Investments in U. S. Government, Municipal and Other Bonds represent the second largest group of assets in the statement of condition. Reports on bonds inform management of the liquidity of the bank. Table 15 summarizes the banks that report bond data and other general data to the operating management of the banks.

Comparative statements were dealt with in two questions on the directors' reports questionnaire. Table 16 lists the number of banks that provide directors with comparative statements of condition and income.

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Table	15
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Type of Report		Footings of Responding Banks (In millions of dollars)								
		Under 10	10- 24		50- 99		500 and over	Total		
1. New and deposit a with reas closing	ccounts	24	34	14	8	12	5	97		
. Departme branch ac informatic	count	4	8	7	3	9	4	35		
Bonds by concentra yield		43	37	10	7	13	6	116		
4. Bond purc and sales		61	49	16	8	13	6	153		
Total Retu	ırns	70	5.5	19	8	13	6	171		

## Banks Reporting Bond Data and Other General Data To Management

Table 16

Banks Providing Comparative Statements to Directors

Type of Report		Footings of Responding Banks (In Millions of Dollars)							
		Under 10	10- 24		50- 99	100- 499	500 and over		
1. Comparativ ment of cor		65	53	19	. 8	13	6	164	
2. Comparativ Statement	e income	52	44	15	8	12	5	136	
Totaļ Retur	ns	70	55	19	8	13	6	171	

Table 17 is a summary of the responding banks that report loan data to directors. The loan data includes past due loans, new loans and commitments and significant loan payoffs.

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#### Table 17

Type of Report		Footings of Responding Banks (In millions of dollars)							
		Under 10	10- 24		50- 99		500 and over	Total	
1.	Past due loans of material amount with collection status	61	48	16	6	10	6	149	
2.	New loans and commitments of material amount	63	52	19	8	13	6	161	
3.	Significant loan payoffs	20	16	8	4	6	2	56	
	Total Returns	70	55	19	8	13	6	171	

Banks Reporting Loan Data to Directors

Bond data is reported to the directors of the responding banks as illustrated in Table 18. Bonds represent the second largest class of earning assets in a bank and therefore demand considerable importance in a reporting system.

Table 18
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	be of port	F						
		Under 10	10- 24	•		100- 499	500 and over	Total
1.	Bonds by maturity mariet and y <b>ie</b> ld	36	30	14	6	11	6	103
2.	Bond purchases and sales	64	51	19	8	13	5	160
	Total Returns	70	55	19	8	13	. 6	171

Banks Reporting Bond Data to Directors

General reports inform the directors on areas of general importance in the bank. Table 19 summarizes the banks that report general data to the directors.

	Table	19		
Banks Reporting	General	Data	to	Directors

	be of port	F						
		Under 10	10- 24		50- 99	100- 499	500 and over	Total
1.	Analysis of undi- vided profits account	51	36	16	6	13	6	128
2.	Teller <i>s</i> 'differences reports	37	36	12	7	6	5	103
3.	Loans to officers and directors	62	47	15	8	12	5	149
4.	Auditor's report	32	36	14	8	13	6	109
	Total Returns	70	55	19	8	13	6	171

Operating highlights of the year were dealt with in four questions on the directors' reports questionnaire. Table 20 is a summary of the responding banks that report the operating highlights of the year to the directors.

#### Table 20

Banks Reporting Operating Highlights of the Year to Directors

Type of Report	Fo	Footings of Responding Banks (In millions of dollars)						
	Under 10	10- 24			100- 499	500 and over	Total	
<ol> <li>Net income in total</li> </ol>	65	53	17	-8	13	6	163	
<ol> <li>Net income and dividends per share</li> </ol>	50	44	16	8	12	6	136	
<ol> <li>Gross loans and investment yields by type</li> </ol>	21	27	10	7	9	6	80	
<ol> <li>Total deposits, capital and assets</li> </ol>	65	550	18	8	13	6	160	
Total Returns	70	55	19	8	13	6	171	

The returned questionnaires have been examined for bias and found to be representative of the patent population. The data has been tabulated and presented above. In the next chapter these findings will be analyzed in detail.

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## Chapter IV ANALYSIS OF DATA

In this chapter the findings will be analyzed and used to support or reject the following hypotheses:

1. Federal Reserve Member Banks in the State of Michigan which use the management and directors reports listed have higher earnings as a percent of total assets than banks which do not use the reports. The greater the number of reports they use, the higher are the earnings of the bank.

2. Federal Reserve Member Banks in the State of Michigan with the larger total footings use more of the management and directors reports than the smaller banks. The larger the footings the more reports they use.

The questionnaire returns were processed on an I.B.M. 1620 computer at the Computer Center at Western Michigan University, Kalamazoo, Michigan. Cross tabulations and correlation coefficients were determined. Of particular interest was the correlation between the number of internal reports used by the bank and the earnings and footings of the bank. Also of interest was the correlation between the use of any specific report by the bank and the earnings of footings of the bank. An attempt was made to isolate any reports which occurred consistently in those banks with high earnings or large footings.

Earnings of Bank in Relation to Report Usage The reporting systems of all banks reporting earnings were compared.

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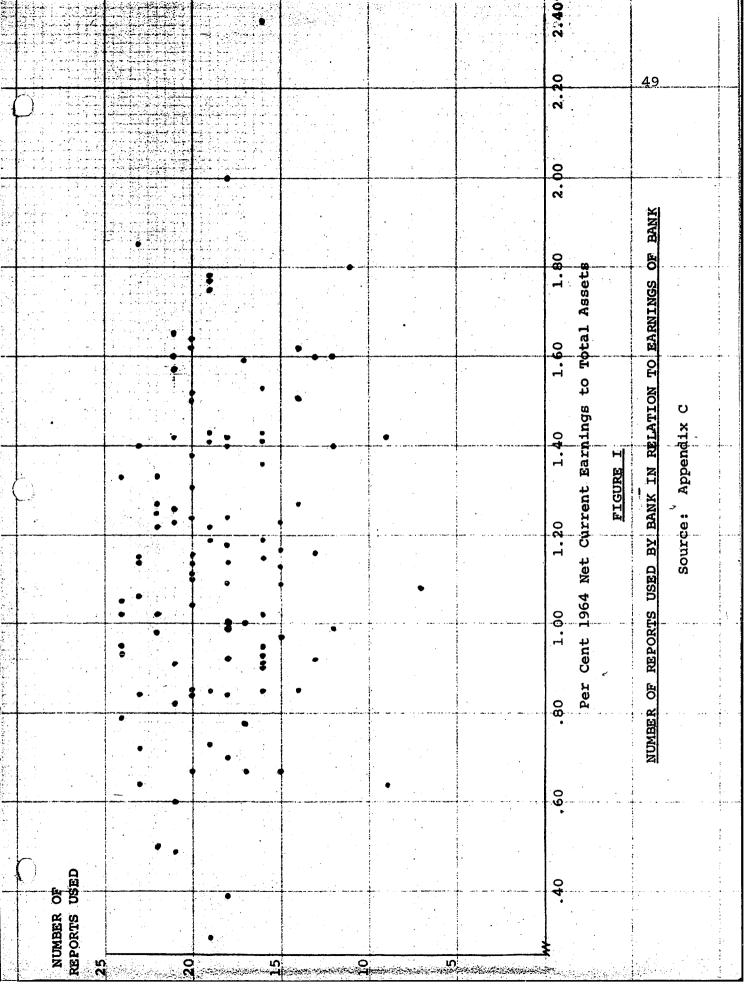
The correlations between the number of reports used by the bank and the earnings of the bank were computed. Figure I illustrates graphically the relationship between the number of reports used by the responding banks and the bank's earnings. The raw data from which this figure was drawn appears in Appendix C. The coefficient of correlation between the number of reports used by the responding banks and the earnings of the responding banks was -.12 which is significant at the 98% confidence level using a "t" test. This negative correlation, although small, implies that the higher are the earnings of the bank, the fewer reports are used by the bank. Hypotheses I was, therefore, rejected. The use of a larger number of reports in a bank does not increase the earnings of the bank.

There are at least three possible explanations for the negative relationship between report usage and earnings. The first reason is that it is very costly to have a comprehensive reporting system in operation in a bank. The data to be reported must be accumulated throughout the period and assembled into a meaningful report at the end of the period. In this era of high labor costs for banks the salaries and wages of the personnel' maintaining the reporting system probably affect the net earnings of the bank. In 1965, Michigan Member Banks paid 21.6% of total operating revenue in salaries and wages plus an additional 2.3% in fringe benefits or a total of 23.9% of operating revenue for "people" costs.<sup>1</sup> To this figure should be added an appropriate portion of computer costs for those banks using computers to generate reports. It may be that energies are expended on increasing the reporting system to the marginal point of no

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<sup>&</sup>lt;sup>1</sup>Federal Reserve Bank of Chicago, <u>1965 Operating Ratios of Seventh</u> <u>District Member Banks</u>.



' return.

A second possible reason for the negative relationship is that larger banks may require more reports for coordination and larger banks are neither more nor less profitable per se than smaller banks. This point will be examined later.

A third suggested reason for the negative relationship is that banks with low earnings may have established extensive reporting systems in an attempt to discover the reason for and to overcome the low earnings.<sup>1</sup> Different types of reports can be used by management to achieve different purposes. Profit center reporting is used to obtain reports on departmental and branch earnings. Responsibility accounting provides management with statements designed to control costs by relating expenditures to the individuals in the organization responsible for their control.<sup>2</sup> Other types of reports are used by management to evaluate operating efficiency. Reports as submitted to the managers and directors of a bank are control information sources or indicators of areas for further study or detailed review. They may then be effective in coordinating activities or controlling costs and thus increasing earnings.

A cross tabulation of report usage established that a pattern existed between specific reports and banks with high earnings. This pattern will be examined later.

<sup>&</sup>lt;sup>1</sup>The inference is that either the use of reports does not increase the earnings ratio or that the banks discontinue some of these reports after reaching more satisfactory earnings levels.

John A. Higgins, "Responsibility & counting," <u>The Arthur Andersen</u> Chronicle, Vol. XII (April, 1952), p. 1.

Table 21 is a summary of the raw data on management and director report usage for responding banks classified by earnings.

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	pe of port		Ear		Respondir al assets	-	
		0- .49	.50- .99	1.00- 1.49	1.50- 1.99	2.00- 2.49	Total
Ma	nagement Reports:	. ,			<u></u>		
1.	Comparative state- ment of condition	3	29	48	18	2	ʻ100
2.	Comparative income statement	3	30	53	18	2	105
3.	Past due loans of material amount with collection status	3	31	50	18	2	104
4.	New Loans and commitments of material amount	3	30	40	15	2	90
5.	Significant loan pay- offs	3	18	19	10	2	52
6.	New and closed deposit accounts with reasons for closing	3	23	33	18	1	78

# Table 21Management and Director Report Usage

Table 21 - continued

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	be of port		]		of Resp f total a	onding Bassets)	anks
	· · · · · ·	0- .49	.50- .99	1.00	1.50 1.99		Total
7.	Departmental and branch accounting information	2	8	14	3	0	27
8.	Bonds by maturity, concentration and yield	2	23	41	10	I	77
9.	Bond purchases and sales	3	29	48	18	2	100
Dir	ector <b>s"</b> Reports:						
1.	Comparative statement of condition	2	30	50	13	1	96
2.	Comparative income statement	3	<sup>°</sup> 25	46	17	2	93
3.	Past due loans of material amount with collection status	1	29	50	17	I	98
4.	New loans and commitments of material amount	2	30	49	15	2	98
5.	Significant loan pay- offs	3	14	14	8	1	40

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	be of port			ngs of Res of total a		Banks	
<u></u>		0- .49	.50- .99	1.00- 1.49	1.50 1.99	2.00- 2.49	Total
6.	Bonds by maturity, market and yield	2	27	40	10	0	79
7.	Bond purchases and sales	l	31	53	16	1	102
8.	Analysis of undivided pro- fits account	3	24	38	14	2	81
9.	Tellers' differences reports	2	21	31	12	1	36 <b>66</b>
10.	Loans to officers and directors	2	31	49	15	2	99
11.	Auditor's report	3	22	32	10	1	68
12.	Net income in total	2	23	51	18	2	96
13.	Net income and dividends per share	3	28	45	13	2	91
14.	Gross loans and investment yields by type	1	18	28	9	0	56

Table 21 - continued

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Type of Report	Earnings of Responding Banks (% of total assets)								
	0- .49	.50 .99	1.00- 1.49	1.50- 1.99	2.00- 2.49	Total			
<ol> <li>15. Total deposits, capital and assets</li> </ol>	3	31	53	18	2	109			
Total Returns	3	31	53	18	2	109			

Table 21 - continued

Table 22 shows the data immediately above in the form of per cent density function by earnings. These tables will be discussed in detail below.

Table 22

Type of Report		Earnings of Responding Banks (% of total assets)							
		0- -49	.50- .99	1.00- 1.49	1.50- 1.99	2.00- 2.49			
Ma	nagement Reports:								
1.	Comparative state- ment of condition	1.00	.94	.91	1.00	1.00			
2.	Comparative income statement	1.00	.97	1.00	1.00	1.00			

Report Usage: Per cent Density

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Type of Report	Èa		f Respond tallasset	ling Banks s)	
	0- .49	.50- .99	1.00- 1.49	1.50- 1.99	2.00- 2.49
3. Past due loans of material amount with collection status	1.00	1.00	.94	1.00	1.00
4. New loans and commit- ments of material amount	1.00	.97	.75	.83	1.00
5. Significant loan pay- . offs	1.00	.58	.36	.56	1.00
<ol> <li>New and closed deposit accounts with reasons for closing</li> </ol>	1.00	.74	.62	1.00	.50
7. Departmental and branch accounting information	.67	.26	.26	.17	0
<ol> <li>Bonds by ma- turity, con- centration and yield</li> </ol>	.67	.74	.77	.56	.50
9. Bond purchases and sales	1.00	.94	.91	1.00	1.00

Table 22 - continued

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Type of Report	Earnings of Responding Banks (% of total assets)						
	0- .49	.50- .99	1.0 <b>0-</b> 1.49	1.50- 1.99	2.00- 2.49		
Directors' Reports:		<u></u>	<u> </u>	- <u></u> .			
1. Comparative state- ment of condition	.67	.97	.94	.72	.50		
2. Comparative income statement	1.00	.81	.87	.94	1.00		
<ol> <li>Past due loans of material amount with collection status</li> </ol>	.33	.94	.94	.94	.50		
<ol> <li>New loans and commitments of material amount</li> </ol>	.67	.97	.92	.83	1.00		
5. Significant loan payoffs	1.00	.45	.26	.44	.50		
<ol> <li>Bonds by maturity, market and yield</li> </ol>	.67	.87	.75	.56	0		
7. Bond purchases and sales	.33	1.00	1.00	.89	.50		
8. Analysis of undivided profits account	1.00	.77	.72	.78	1.00		
9. Tellers' differences reports	۵ <b>67</b>	. 68	.58	.67	.50		
0. Loans to officers and directors	.67	1.00	.92	.83	1.00		

Table 22 - continued

Type of Report	Earnings of Responding Banks (% of total assets)							
	0- .49	.50- .99	1.00- 1.49	1.50- 1.99	2.00- 2.49			
L1. Auditor's report	1.00	.71	.60	.56	.50			
12. Net income in total	.67	.74	.96	1,00	1.00			
<ol> <li>Net income and dividends per share</li> </ol>	1.00	.90	.85	. 72	1.00			
4. Gross loans and investment yields by type	.33	.58	.53	.50	1.00			
15. Total deposits capital and assets	1.00	1.00	1.00	1.00	1.00			

Tables 21 and 22 reveal that the use of certain reports by the bank is related to the earnings of the bank. Only one management report was related to earnings; namely, departmental and branch accounting information. On the other hand six directors' reports were related to earnings. These were specifically:

- 1. New loans and commitments of material amount.
- 2. Bonds by maturity, market and yield.
- 3. Loans to officers and directors.
- 4. Auditor's report.

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5. Net income in total.

6. Net income and dividends per share.

Departmental and branch accounting information was reported more frequently in low earnings banks. This seems to support the explanation given above covering the use of reports designed to discover the reason for and to overcome low earnings.

New loans and commitments of material amount; bonds by maturity, market and yield; loans to officers and directors; auditor's report; and net income and dividends per share were all reported more frequently in low earnings banks. The use of these reports by low earnings banks seems to support the first explanation above, that reports cost money and that it is very costly to have an internal reporting system.

Net income in total is reported more frequently in high earnings banks. This is understandable because banks with high earnings would certainly report them to the directors.

Footings of Bank in Relation to Report Usage

The reporting systems of all responding banks were compared and the correlation coefficient computed between the number of reports used by the bank and the footings of the bank. Table 23 is a summary table for bank footings and number of reports used. The coefficient of correlation between the number of reports used by the responding banks and the footings of the responding banks was .20, significant at the .99% confidence level. This positive correlation, although small, implies that the larger the bank, the more reports are used by the bank. Hypotheses 2 was therefore accepted. Larger size banks use more of the management and directors' reports than smaller size banks.

Table	23
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Number of Reports Used by Bank in Relation

	· ·	to Fo	otings o	f Bank					
Number of Reports Used	Footings of Responding Banks (In Millions of Dollars)								
	Under	10-	25-	50-	100-	500 and			
	10	24	49	99	499	over			
1		<u></u>							
32	1								
3	-								
4									
5									
6									
7	1								
8									
9	2		l						
10									
11	2								
12	3	1							
13	4	1	1						
14	5	1							
15	5	6							
16	13	8	2		1				
17	3	4			1				
18	6	8	3		I				
19	9	4	1	1					
20	8	8	2	1	2	l			
21	5	6	3	_	2	l			
22	1	5	3	4	_	1			
23	1	2	2		3	3			
24	1	1	1	2	3				
25									

to Footings of Bank

There are at least two possible explanations for this positive correlation between size of bank and report usage. The first reason

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Total

as suggested above is that larger size banks need more extensive communications between specific departments and management than do smaller size banks. Larger size banks are more departmentalized than smaller size banks and operations are more segmented. Managers in a smaller size bank can communicate directly with all of the personnel in the organization. This is difficult or impossible in a larger size bank. Reports are used in a larger size bank to communicate with and present operating information to the managers and directors of the bank.

A second possible reason for the positive correlation between size of bank and report usage is that larger size banks have the technical equipment to maintain the records and produce the detailed reports of an operating nature. Computers in larger size banks can produce certain reports almost instanteously, whereas personnel in a smaller size bank would have to spend considerable time to produce the same report. Because of this, many smaller size banks have eliminated detailed reports from their reporting systems and include only those which are the most essential and economical to prepare.

A cross tabulation of report usage established that certain reports are used in all size banks to report to management and the directors, whereas certain other reports are used only by larger size banks. This point will be examined later. Table 25 is a summary of the raw data of management and director report usage for responding banks classified by footings.

Type of Footings of Responding Banks (In Millions of Dollars) Report 10-25-100-Under 50-500 and Total 99 499 10 24 49 over Management Reports: 1. Comparative 65 51 16 8 12 6 158 statement of condition 2. Comparative 63 8 6 160 53 · 17 13 income statement 3. Past due loans 62 54 19 8 6 12 161 of material amount with collection status 4. New loans and 6 59 52 17 8 11 155 commitments of material amount 5. Significant loan 21 23 9 7 9 4 73 payoffs 6. New and closed 24 14 8 12 5 97 34 deposit accounts with reasons for closing 8 7 3 9 4 7. Departmental 4 35 and branch accounting information 8. Bonds by maturity, 43 37 10 7 13 6 116 concentration and yield

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Management and Director Report Usage

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	be `of bort	Footings of Responding Banks (In Millions of Dollars)						
		Under 10	10- 24	25- 49	50- 99	100- 499	500 and over	`Total
9.	Bond pur- chases and sales	61	49	16	8	13	6	153
Dir	ectors Reports:							
1.	Comparative statement of condition	65	53	19	8	13	6	164
2.	Comparative income state- ment	52	44	15	8	13	6	136
3.	Past due loans of material amount with collection status	61	48	16	16	10	6	149
4.	New loans and commit- ments of material a- mount	63	52	19	8.	13	6	161
5.	Significant loan payoffs	20	16	8	4	6 -	- 2	56
6.	Bonds by ma- turity, market and yield	36	30	14	6	11	6	103
7.	Bond purchase and sales	s 64	51	19	8	13	5	160

Table 24 - continued

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Tyr Rer	e of ort	Footings of Responding Banks (In Millions of Dollars)						
		Under 10	10- 24	25- 49	50- 99	100- 499	500 and over	Total
8.	Analysis of undivided profits Account	51	36	16	6	13	6	128
9.	Tellers' differ- ences reports	37	36	12	.7	6	5	103
10.	Loans to officers and directors	62	47	15	8	12	5	149
11.	Auditor's report	32	36	14	8	13	6	171
12.	Net income in total	65	53	17	8	13	6	163
13.	Net income and dividends per share	50	44	16	8	12	6	136
14.	Gross loans and invest- ment yields by type	21	27	10	7	9		80
15.	Total deposits , capital and assets	65	50	18	8	13	6	160
	Total Returns	70	55	19	8	13	6	171

Table 24 - continued

Table 25 shows the data immediately above in the form of a percent density function by footings. These tables will be discussed in detail below.

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### Table 25

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	pe of port		Footings of Responding Banks (In Millions of Dollars)						
		Under 10	10- 24	25- 49	50- 99	100- 499	500 and over		
Ma	nagement Repor	ts:							
1.	Comparative statement of condition	.93	.93	.84	1.00	. 92	1.00		
2.	Gomparative income statement	.90	.96	.89	1.00	1.00	1.00	-	
3.	Past due loans of material a- mount with collection status	.89	.98	1.00	1.00	.92	1.00		
4.	New loans and commit- ments of ma- terial amount	.84	.95	.89	1.00	.85	1.00		
5.	Significant loan payoffs	.30-	.42	.47	.88	.69	. 67		
6.	New and closed de- posit accounts with reasons for closing	.34	.62	.74	1.00	.92	.83		
7.	Departmental and branch accounting information	.06	.15	.37	.38	.69	.67	-	

# Report Usage: Per Cent Density

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Table 25 - continued

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lype of Report	·		•		onding B f Dollar	
· · · ·	Under 10	10- 24	25- 49	50- 99		500 and over
B. Bonds by ma- turity, con- centration and yield	.61	<b>. 8</b> 5	.53	.88	1.00	1.00
9. Bond purchases and sales	.87	.89	.84	1.00	1.00	1.00
Directors' Reports:						
l. Comparative statement of condition	.93	.96	1.00	1.00	1.00	1.00
2. Comparative income state- ment	.74	.80	.79	1.00	1.00	1.00
3. Past due loans of material a- mount with collection status		.87	.84	.75	.77	1.00
4. New loans and commit- ments of ma- terial amount	.90	.94	1.00	1.00	1.00	1.00
5. Significant kalor loan payoffs	.29	.29	. 42	42	.46	.33
<ol> <li>Bonds by ma- turity, market and yield</li> </ol>	.51	.55	.74	.75	.85	1.00
<ol> <li>Bond purchases and sales</li> </ol>	s .91	.93	1.00	1.00	1.00	.83

	pe of port	• • •		-	of Resp 1110ns o	-		
		Under 10	10- 24		50- 99	100- 499	500 and over	
8.	Analysis of undivided profits account	.73	.65	.84	.75	1.00	1.00	
9.	Tellers' differences reports	.53	.65	.63	.88	.46	.83	
10.	Loans to officers and directors	.70	.85	.79	1.00	. 92	.83	
11.	Auditor's report	.46	.65	.74	1.00	1.00	1.00	
12.	Net income in total	.93	.96	.89	1.00	1.00	1.00	
13.	Net income and dividends per share	.71	.80	.84	1.00	1.00	1.00	
14.	Gross loans and invest- ment yields by type	.30	.49	.53	.88	. 69	1.00	
15.	Total deposits , capital and assets	.93	.91	.84	1.0€	1.00	1.00	

Table 25 - continued

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Tables 24 and 25 reveal that certain reports are used in all banks for management and director reporting, whereas certain other reports are used only by larger size banks. Reports used by almost all of the banks regardless of size include the following:

Management Reports:

1. Comparative statement of condition.

2. Comparative income statement.

3. Past due loans of material amount with

collection status.

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4. New loans and commitments of material amount.

5. Bonds by maturity, concentration and yield.

6. Bond purchases and sales.

Directors' Reports:

1. Comparative statement of condition.

2. Comparative income statement.

3. Past due loans of material amount with collection

status.

4. New loans and commitments of material amount.

5. Bond purchases and sales.

6. Analysis of undivided profits account.

7. Net income in total.

8. Total deposits, capital and assets.

Reports used more often by larger size banks include the following:

Management Reports:

1. Significant loan payoffs.

2. New and closed deposit accounts with reasons

for closing.

3. Departmental and branch accounting information.

Directors' Reports:

1. Significant loan payoffs.

2. Bonds by maturity, market and yield.

3. Tellers' differences reports.

4. Loans to officers and directors.

5. Auditor's report.

6. Net income and dividends per share.

7. Gross loans and investment yields by type.

The reports used by larger size banks are used to coordinate and control the operations of the bank, whereas, the reports used by all banks are general reports used in the daily operations of the bank. Significant loan payoffs; new and closed deposit accounts with reasons for closing; tellers' difference reports; loans to officers and directors; auditor's report; and net income and dividends per share seem to support the first explanation above concerning the use of certain reports by large banks because of the need of extensive communications in large banks. The mere fact that a bank is large and departmentalized is reason enough for the use of certain of the reports.

Departmental and branch accounting information; bonds by maturity, concentration and yield; and gross loans and investment yields by type used in large banks seem to support the second explanation above concerning the use of technical equipment by large banks. Computers and similar equipment produce such reports very quickly, whereas manual production would require a considerable amount of time.

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### Chapter V

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This study was conducted to explore the significance of the reporting function in commercial banks and provide the banking industry with an empirically tested ideal reporting system.

The first phase was a study of banking and accounting literature to determine the functions and purposes of internal reports for the managers and directors of a bank. It was stated in Chapter I that, although they have different responsibilities, the managers and directors of a bank receive many of the same reports. Reports were analyzed and classified into two types, operating reports and financial reports. Operating reports deal with current operations and financial reports deal with the financial condition of the bank.

In the second phase of the study an ideal reporting system for commercial banks was selected. This ideal reporting system was chosen to provide bank managers with those reports necessary to enable them to determine the extent to which operations are going as planned. The ideal system further provided the directors with reports to enable them to appraise the managers and keep them aware of the financial condition of the bank. Separate lists of reports were given for the managers and directors.

The third phase of the study was a test of the ideal reporting

systems fit as it applied to current banking practice. A questionnaire was sent to all banks in Michigan who were members of the Federal Reserve System. Questionnaires were received from 81% of the 211 sent out, representing 57.8% of all of the banks in the State. Tests were made indicating that the returns were representative of the survey population.

The fourth and final phase of the study was the cross tabulation and determination of the correlation between the number of reports used and both the earnings and footings of the bank:. The size and earnings of the bank were correlated to the number of reports used by the bank and to the use of specific reports.

The coefficient of correlation between the number of reports used by the responding banks and the earnings of the responding banks was -.12. This negative correlation seems to indifcate that the higher the earnings of the bank are, the fewer reports are used by the bank. A cross tabulation of report usage established that certain reports were used more frequently within banks which reported either high or low earnings. There was a pattern between report: usage and earnings.

The coefficient of correlation between the number of reports used by the responding banks and the footings of the responding banks was .20. This positive correlation seems to indicate that the larger the bank, the more reports tend to be used by the bank. It may be that larger banks include the heavier computer users and that once a computer

facility is established by a bank, there is an incentive to use it to generate reports not otherwise produced. A cross tabulation of report usage established that certain reports were by banks of all sizes, whereas certain other reports were used more often by larger banks.

The two major hypotheses that were tested in this study are as follows:

 Earnings of a bank are a function of the number of reports used by the bank.

2. The number of reports used by the bank are a function of the size of the bank.

The first hypotheses was rejected while the second was supported.

The next logical step would be to examine earnings as a function of size. Data on this question may be found in Appendix D.

The coefficient of correlation between the earnings and footings of the responding banks was -.05. This small correlation is not significant. The earnings of the responding banks are not related to the size of the responding banks. Earnings as a per cent of total assets are substantially the same for smaller and larger size banks. Although larger size banks have increased efficiencies from the use of computers, these efficiencies are offset by increased operating costs.

#### Implications

One of the major arguments frequently given for the increased use of internal reports is profitability. This study failed to lend any empirical support for this argument. Furthermore, while the larger banks tend to use more reports, these larger banks seem not to show economies of scale, but instead, do not differ significantly from their smaller brethreen on the criterion Return on Assets.

It is possible that banks generate reports that are not used or that are not useful. Larger banks probably are more likely to own computer facilities. Once computer access becomes a fixed charge, an incentive would seem to exist for the generation of reports with insufficient regard for their ability, but with high regard for their **aid** in justifying the computer purchase.

Bankers may not be particularly sensitive to the fact that larger banks are not more profitable to smaller banks. One would expect the argument to go: the larger bank can offer a broader array of services to the banking customers, and service is a banks' primary business. It would seem however, that banklstockholders would be directly interested in the profitability of their banks. Furthermore, those in professional banking associations or in governmental bodies charged with responsibility for financial stability would be concerned about the strength or weakness of United States' banks, one indicator of which might be profitability.

One could further hypothesize that bank directors and managers are sensitive to the status and prestige that comes from being associated with a larger bank. Any increased contributions to profit by the larger bank seems to be offset by increased costs, perhaps as a function of increased branch operations. Other increased costs might include those expended on report preparation as more reports are needed by larger banks for internal communication, coordination, and control.

### Recommendations for Further Study

As a result of exploring the area of bank reporting systems and considering the implications above, several possible studies seem worthwhile. Of primary need is the marginal costs and values for individual reports. While this information would **perhaps** be most useful to a bank manager, it might easily be the most difficult to obtain. It would seem that multivariate analysis could offer an approach but the interaction effects of report combinations greatly compounds the problems.

A second study might enquire into the relationship between reports generated at the request of the user versus those offered for use by the generator and the degree of usefulness of the report and the extent to which it is actually used. The result might be a guide to making policy in the area of report instigation.

A third study could examine the profitability of branches. Specifically, the question of whether or not branches lead to more <u>total</u> (not branch) banking profits. Branches seem often to be a function of compe-

tition. Perhaps the more profitable bank is the one with fewer, not more branches, breadth of services being held constant.

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Finally, a fourth study might focus on the motivations and satisfactions of bank managers to answer the question: Is it more important to a) bank customers, and b) bank directors and managers, to be associated with a larger or a more profitable (economically efficient) bank? Such a study could illuminate areas of bank organizational behavior that are presently subject to frequent speculation and rarely knowledge.

#### BIBLIOGRAPHY

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### A. Books

- Anderson, David R. <u>Practical Controllership</u>. Chicago: Richard D. Irwin, 1949.
- Heckert, J. Brooks and James D. Wilson. <u>Controllership</u>. New York: The Ronald Press Co., 1963.
- Kennedy, Walter. <u>Bank Management</u> Third Edition. Boston: Bankers Publishing Co., 1965.
- Lewis, Ronello B. <u>Accounting Reports for Management</u>. Englewood Cliffs: Prentice Hall, Inc., 1957.
- <u>Michigan Statistical Abstract</u>. 1964. Michigan State University, East Lansing, Michigan, 1964.
- Selltiz, Claire and others. <u>Research Methods In Social Relations</u>. New York: Holt, Rinehart and Wilson, 1964.
- <u>Reporting Financial Data to Management</u>. American Management Association. New York: 1965.
- <u>Reporting Financial Data to Top Management</u>. American Management Association. New York: 1957.
- <u>NABAC Manual</u>. National Association for Bank Audit, Control and Operation. Park Ridge: 1963.

B. Publications of the Government

Federal Reserve Bank of Chicago. <u>1965</u> <u>Operating Ratios of Seventh</u> <u>District Member Banks</u>. Chicago: 1965.

C. Publications of Associations

American Bankers Association. <u>A Bank Directors Job</u>. New York: 1964.

American Bankers Association. <u>National Automation Conference</u>, 1964. New York: 1965.

### D. Periodicals

Bacon, Lyman A. "Pointing Up Trends for Officers and Directors," <u>Burroughs Clearing House</u>, Vol. 42 (March, 1958), p. 42.

Brunken, E. H. "Profit Planning Requirements and Benefits," <u>Auditgram</u>, XL (February, 1964), p. 12.

**(**)

- Garr, William B. "Developing Interpretive Reports," <u>Auditgram</u>, XII (October, 1965); p. 14.
- Garter, Norman H. and Sigfrid W. Kessler. "Management Information Systems," <u>Banking</u>, LVIII (May, 1966), p. 64.
- Cohen, Kalman J. "Risk Analysis and Branch Bank Location," <u>Banking</u>, LVIII (February, 1966), p. 51.
- Hertz, David B. "Implementing An Operations Research Program," <u>Banking</u>, LVIII (March, 1966), p. 47.
- Higgins, John A. "Responsibility Accounting," <u>Arthur Andersen</u> <u>Chrocicle</u>, XII (April, 1952), p. 1.
- Huelsman, R. C. "Bank Reports..... Directors Reports," Auditgram, XXIV (July, 1948), p. 15.
- Myers, John H. "Accounting For Bank Capital," <u>Auditgram</u>, XLI (September, 1965), p. 10.
- Odle, Harry V. "What's Operations Research All About," <u>Burroughs</u> <u>Clearing House</u>, Vol. 50 (February, 1966), p. 40.
- NABAC, "NABAC Announces New Tool for Banks," <u>Auditgram</u>, XLI (November, 1964), p. 46.
- Pedlowe, Edward F. "Reporting to Management," <u>Auditgram</u>, XXVII (April, 1951), p. 19.
- Weingarten, H. Martin. "Concepts and Utilization of Credit Scoring Techniques," <u>Banking</u>, LVIII (February, 1966), p. 53.

Winder, Jerome E. "Good Reports Stimulate Action," <u>Auditgram</u>, XXVIII (May, 1957, p. 16. Other Sources

<u>Monthly Economic Letter</u>, First National City Bank, New York, (April, 1966), P. 41.

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Letter from Mr. Thomas D. Novak, Chief, Statistics Section, Federal Reserve Bank of Chicago, January 20, 1966. APPENDIX

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### APPENDIX A-1

### WESTERN MICHIGAN UNIVERSITY

SCHOOL OF BUSINESS DEPARTMENT OF MANAGEMENT

KALAMAZOO, MICHIGAN 4900 80

Attention: Cashier

Dear Sir:

The Banking Research Division of the Management Department of the School of Business at Western Michigan University is conducting a survey of management reporting systems in Federal Reserve member banks in Michigan. The purpose of this survey is to determine whether there is a relationship between the completeness of bank management reporting and the earnings of a bank. Both management reports and directors' reports will be analyzed in the survey.

Enclosed are two questionnaires which I hope you will have the time and patience to complete for me. All information from returned questionnaires will be anonymous and held in strictest confidence by the writer. The results of the survey will be made available to all who complete the questionnaires and return them to me. Please sign and return the attached form if you would like a summary of the survey results mailed to you.

A postage paid self-addressed envelope is enclosed for your convenience in returning completed questionnaires. A prompt return of questionnaires will aid in the analysis of the survey.

Thank you for your cooperation in making this survey more meaningful and complete.

Very truly yours,

Dr. Nazir A. Ansari Assistant Professor Department of Management

Enclosures 4

## WESTERN MICHIGAN UNIVERSITY

SCHOOL OF BUSINESS DEPARTMENT OF MANAGEMENT KALAMAZOO, MICHIGAN 49803

Attention: Cashier

Dear Sir:

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The questionnaires recently sent to you on bank management reporting have not as yet been returned. Have you forgotten to complete and return them or have they been mislaid? I would like to have your bank included in the survey.

Enclosed are two more questionnaires which I hope you will have the time and patience to complete for me. The results of the survey will be made available to all who complete and return the questionnaires. Please sign and return the attached form if you would like a summary of the survey results mailed to you.

Thank you for your cooperation in making this survey more meaningful and complete.

Very truly yours,

Dr. Nazir A. Ansari Assistant Professor Department of Management

Enclosures 4

### APPENDIX B-1

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SURVEY OF REPORTING SYSTEMS	82
MANAGEMENT REPORTS	
What method of accounting is used in your bank?	
Cash	· · ·
Accrual	
Part Cash - Part Accrual	
hat are the footings of your bank? (Millions of Do	llars)
Under 10 50-	99
10-24 100	-499
25-49 500	and over
nich of the following comparative statements are fundament? (All compared with previous year or yea	-
Comparative statement of condition	
Comparative income statement	
nich of the following loan statistics are furnished	your management?
Past due loans of material amount with col	lection status
New loans and commitments of material amou	nt .
Significant loan payoffs	
nich of the following general reports are furnished	your management?
New and closed deposit accounts with reaso	ns for closing
Departmental and branch accounting informa omparisons if budgets are used in your bank	tion with budget
Bonds by maturity, concentration and yield	
Bond purchases and sales	
hat is the distribution of your management reports?	
President Dep	t. Heads (Not Officers
All Other Officers Sup	ervisors (Not Officers
Branch Managers (Not Officers	)
Per cent 1964 net current earnings before otal assets. (As reported for your bank in the Fed publication "1964 Operating Ratios of Seventh Distri	eral Reserve

### APPENDIX B-2

#### SURVEY OF REPORTING SYSTEMS

### DIRECTORS' REPORTS

1. D	Do vou	furnish	vour	Directors	with	periodic	reports?
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Yes

No

If your answer above is yes, please complete the questionnaire.

If your answer above is no, nothing more is required on this questionnaire.

2. Which of the following comparative statements are furnished your Directors? (All compared with previous year or years)

Comparative statement of condition

Comparative income statement plus a budget comparison if budgets are used in your bank

3. Which of the following loan statistics are furnished your Directors?

Past due loans of material amount with collection status

New loans and commitments of material amount

\_\_\_\_\_ Significant loan payoffs

- 4. Which of the following bond statistics are furnished your Directors?
  - \_\_\_\_\_ Bonds by maturity, market and yield
  - \_\_\_\_\_ Bond purchases and sales
- 5. Which of the following general reports are furnished your Directors?

\_\_\_\_\_ Analysis of undivided profits account

Tellers' differences reports

Loans to Officers and Directors

Auditor's report

6. Which of the following highlights of the year are furnished your Directors? (All compared with previous years)

\_\_ Net income in total

-Net income and dividends per share

\_ Gross loans and investment yields by type

Total deposits, capital and assets

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# Appendix C

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## Number of Reports Used by Bank in Relation

### to Earnings of Bank

Number of Reports Used	Earnings of Responding Banks (% of Total Assets)
19	.30
18	.39
21	.49
22	.50
21	.60
9	.64
23	. 64
20	.67
17	.67
15	. 67
18	.70
23	.72
19	.73
17	.78
24	.79
21	.82
23	.84
18	.84
20	.84
14	.85
20	.85
16	.85
19	.85
16	.90
16	.91
21	.91
13	.92
18	.92
16	. 93
24	.93
16	.95
24	.95
15	.97
22	<b>98</b>

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Number of Reports Used	Earnings of Responding Banks (% of Total Assets)
12	,99
18	.99
17	1.00
18	1.00
22	1.02
24	1.02
16	1.02
20	1.04
24	1.05
23	1.06
7	1.08
15	1.09
18	1.09
20	1.10
20	1.11
- 15	1.13
20	1.14
18	1.14
23	1.14
23	1.15
16	1.15
20	1.16
13	1.16
15	1.17
18	1.18
16	1.19
16	1.19
16	1.19
19	1.19
22	1.22
19	1.22
21	1.23
15	1.23
20	1.24
18	1.24
22	1.25
21	1.26

Appendix C - continued

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Number of Reports Used	Earnings of Responding Banks (% of Total Assets)
22	1.27
14	1.27
20	1.31
22	1.33
24	1.33
16	1.36
20	1.38
23	1.40
18	1.40
12	1.40
16	1.41
19	1.41
19	1.41
21	1.42
9	1.42
18	1.42
16	1.43
19	1.43
20	1.50
14	1.51
20	1.52
16	1.53
21	1.57
17	1.59
13	1.60
12	1.60
21	1.60
20	1.62
14	1.62
20	1.64
. 21	1.65
19	1.75
19	1.77
19	1.78
11	1.80
23	1.85
18	2.00
16	2.35

Appendix C - Continued

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## Appendix D

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Earnings of Responding	Footings of Responding Banks						
Banks (% of Total Assets)	(In Millions of Dollars)						
·	Under 10	10- 24	25- 49	50- 99	100- 499	500 and over	Total
.30			1				1
.39			1				1
.49		1					1
.50			1				1
.60		1					1
.64	_ 1				1		2
.67	1	2					3
.70			1				1
.72					1		1
.73	1						1
.78	1						1
.79					1		1
. 82	1						1
.84	1	1	1				3
.85	2	1		1			4
.90	1						1
.91		1			1		
. 92	1	1					2 2 2 2
.93	1			1			2
.95	1				1		2
.97		1					1
.98		1					1
.99		1				1	2
1.00	1				1		
1.02	1		2				2 · 3
1.04					1		1
1.05				1			1
1.06						I	I
1.08	1						1
1.09		1	1				2
1.10		1					1
1.11		-			1		I 1 2 1 1 1 3 2
1.13		1					ī
1.14		2	1				3
1.15		2 1				1 ·	2

Earnings of Responding Banks in Relation to Footings

Earnings of Responding	•	]				ding Banl	s
Banks (% of Total Assets)					s of Dollars)		
	Under 10	10- 24	25- 49	50- 99	100- 499	500 and over	Tota.
1.16	1	1					2
1.17	1						2 1
1.18	1						1
1.19	2	1	1				4.
1.22	1			1			2
1.23	1	1					2
1.24	1	1					2
1.25						1	1
1.26		1					1
1.27	1			1			2
1.31	1						1
1.33				1		1	2
1.36	1						1
1.38		1					1
1.40	1	1			1		3
1.41	2	1					3
1.42		1	2				3 3 2
1.43	1	1					2
1.50			1				1
1.51	1						1
1.52		1					1
1.53	1						1
1.57		1					1
1.59	1						1
1.60	2				1		3
1.62	1	1					2
1.64	1						1
1.65		1					1
1.75	1						1
1.77		1					1
1.78		1					1
1.80	1						1
1.85	-	1					1
2.00	1	-					1
2.35	1						1
Total Returns	41	34	13	6	10	5	109

Appendix D - Continued

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