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NAJJAR, Mohamed Adnan, 1936-
PLANNING IN SMALL MANUFACTURING COMPANIES:
AN EMPIRICAL STUDY.

The Ohio State University, Ph.D., 1966
Business Administration

University Microfilms, Inc., Ann Arbor, Michigan
PLANNING IN SMALL MANUFACTURING COMPANIES:

AN EMPIRICAL STUDY

DISSERTATION

Presented in Partial Fulfillment of the Requirements for the Degree Doctor of Philosophy in the Graduate School of The Ohio State University

By

Mohamed Adnan Najjar, B.A., M.B.A.

* * * * * *

The Ohio State University

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ACKNOWLEDGMENTS

I wish to express my sincere gratitude to the members of my committee, Dr. Charles B. Hicks, Dr. Ralph M. Stogdill, and Dr. William M. Morgenroth, for their assistance, encouragement, and generous contributions of experience and guidance.

Acknowledgment is due to presidents of Ohio small manufacturing companies, for their assistance in the assemblance of the data for this study. I would like to indicate my deep appreciation to my parents whose patience and support have accounted in large measure for the completion of this work.

Many others who have helped in many ways have been omitted here. It is impossible to list them all. If they read this -- Thanks.
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CHAPTER I

INTRODUCTION

"Management is the function of executive leadership. It is the work of planning, organizing, and controlling the activities of the organization in the accomplishment of its objectives." ¹

Planning is concerned with the development of business plans. These involve: objectives, policies, procedures, schedules, budgets, and programs. ² George A. Steiner defines planning as follows:

Planning in general is conscious determination of action designed to reach given objectives. Planning is deciding in advance what is to be done, who is going to do it, and how it is to be done. ³

Planning, as such, requires the setting of goals and objectives, making forecasts, and specifying actions for the principal areas of business as well as for the business as a whole.

Planning has been recognized by management scholars as a basic and pervasive managerial function. In speaking of its importance, Henri Fayol states:

Lack of sequence in activity and unwarranted changes of course are dangers constantly threatening business without a plan. The slightest contrary wind can turn from its course a boat which is unfitted to resist. When serious happenings occur, regrettable changes of course may be decided upon under the influence of profound but transient disturbance. Only a program carefully pondered at an undisturbed time permits of maintaining a clear view of the future and of concentrating maximum possible intellectual ability and material resources upon the danger.4

Planning as an essential business function is as important to the small company as it is to the large. In this regard, Lebreton states:

The growing complexity of the business relationships and the sharpening of competitive know-how in today's business world emphasize the importance of planning in the small business organization. Any business organization, whether it be large or small, must adapt to changing times. The small business organization which intends to remain a part of the changing business world must, through planning, anticipate the future and shape its course of action accordingly.  

The existence of uncertainty and the desire to achieve the objectives of the business economically and effectively make planning an important and a basic managerial function. Continuation of profits and steady growth in business are assured through plans and planning. According to R. Eide:

To continue making a profit, a business must see ahead, not merely guess ahead; it must program its future under carefully proposed plans, and it must be alert at all times to change its future program with each new set of conditions. So far as humanly possible, it must anticipate what will happen and what is required.  


Other benefits may be derived from planning. The net result of business planning, according to management scholars, is business success.

In a study for the Stanford Research Institute, Maines reported a definite relationship between a company's growth and its forward-looking programs to promote its future in such areas as produce development, market development, company acquisitions, organization or management development, and operations research.\(^7\)

In a doctoral study of the origin and development of a philosophy of long-range planning in American business, Cleland reported that the results of long-range planning are new product lines, product diversification, company acquisitions, executive development programs, company reorganizations, organizational decentralization, and company mergers.\(^8\)


Statement of the problem

Most management scholars share the view that establishing objectives for the principal areas of the business, making forecasts, developing plans, and providing certain qualities in these plans are appropriate management practices because they lead to business success. In consideration of this thesis, it is the purpose of the present study to test the following hypotheses:

1. That business success as measured in terms of perceived benefits derived through planning will correlate positively with reported frequency of top-management behavior in establishing objectives, making forecasts, developing plans, and providing desirable characteristics in the process of planning.

2. That business success as measured in terms of satisfactions with profits and growth in sales will correlate positively with management behavior in establishing objectives, making forecasts, developing plans, and providing desirable characteristics in the process of planning.
3. That business success as measured in terms of perceived benefits derived, satisfaction with profits, and satisfaction with growth in sales will correlate negatively with the difficulties and limitations faced in the performance of planning.

4. That the perceived benefits derived through planning will correlate positively with satisfactions with profits and growth in sales.

Method of investigation

A questionnaire of the Likert form was sent to a sample of two hundred and twenty-one manufacturing companies, each employing between one hundred and five hundred employees, selected from Directory of Ohio Manufacturers 1965. The questionnaire used in this study was intended to elicit the respondent's assessment of the relevance of a number of descriptive terms when applied to his company performance in planning.

An indication of the respondent's frequency of establishing objectives, making forecasts, developing plans, considering certain qualities in plans, facing difficulties in the performance of planning, obtaining certain benefits from
planning, satisfactions with profits and growth in sales together with information about age of the company, number of employees, annual sales volume, number of years of experience of the managers, and number of college graduates holding managerial positions was obtained by means of the questionnaire.

In order to test the relationships between the intensity of establishing objectives, making forecasts, developing plans, quality of planning, and difficulties encountered in the performance of planning and company success in terms of perceived benefits derived, satisfactions with profit, and satisfactions with sales growth, Pearson Product-moment correlation coefficients were computed. This technique was also used to find the relationships between company structure in terms of age, size, experience of managers, and number of college graduates holding managerial positions and success of the company in terms of perceived benefits derived, satisfactions with past profits, and satisfactions with past sales growth. The relationships between these factors
and the intensity of establishing objectives, making forecasts, developing plans, quality of plans, and difficulties faced in planning performance were calculated through this technique.

Further, a multiple correlation coefficient describing the extent of the relationships between each of the three success criteria, i.e., perceived benefits derived, satisfaction with profits, and satisfaction with sales growth, and the behavior of establishing objectives, making forecasts, developing plans, and qualities of planning was computed.

Chapter III is devoted to a more detailed discussion of methodology.

Importance of the study

"Skill in anticipating the future and planning to meet it determines success in management. The government, the company or the individual who does not plan wisely for the future invites failure." 9

If there could be any assurance that business failures would be reduced and business prosperity will be improved by the adoption of appropriate planning principles, surely the effort is worthwhile.

A considerable amount of literature is available pertaining to the subject of planning in business. But very little empirical research appears to have been conducted to determine the nature, extent, and significance of planning in business. Generally, information which attempts to signal the importance of planning among small manufacturing companies is practically nonexistent.

The problem then becomes important. Its importance is derived from its significance to the success of the business and from the lack of research on the subject especially in small manufacturing companies. Within the bounds of the scope, method, and limitations, much can be learned about a considerable problem area.

In addition, the subject of business planning gains additional notability in light of growing complexity and changes of business life. The
dynamics of the surrounding conditions have forced management to undertake some semblance of planning in order to better prepare for the future.

Furthermore, planning has economic and political implications. The need for stabilization of the economy through individual business planning may be a favorable alternative over some type of state planning which would in all probability infringe on the prerogatives of private property. It is believed that planning by individual business could play an important role in aggregate economic stabilization and in moderating business fluctuations.

Limitations

This study is concerned with administrative planning which involves a high degree of futurity as a fundamental, far-reaching, and basic corporate consideration evaluated by top management. Operational planning is excluded from the study because this type is concerned with day-to-day problems, involves very little futurity, is done at some organizational level below top management, and is believed to be of more importance to control
than to planning. With regard to the relationship between operative planning and futurity, Davis states:

As we go down the various organizational levels, approaching the point of primary operative performance, the required degree of futurity in planning decreases. Planning at the point of operative performance tends to be minor and involves practically no futurity.\(^{10}\)

Although the principal areas of business are briefly examined, no full development of the theoretical effort in these areas is attempted. This study is concerned with the functional area of planning as a part of the total company, not as an entity in itself.

This study is also limited to manufacturing concerns each employing at least one hundred and no more than five hundred employees. The lower limit of one hundred employees was selected because it was felt that concerns with fewer employees would be too small to make it possible for the presidents of these companies to evaluate the degree to which they practice planning. In addition, it was believed that presidents of companies of at least one hundred

\(^{10}\) R. C. Davis, op. cit., pp. 45-46.
employees would be more inclined to release information relating to their planning performance and the degrees to which they are satisfied with their profits and sales. The upper limit of five hundred employees was selected because this limit is a formal size criterion established by the Small Business Administration in its definition of small manufacturing establishments. It was further believed that setting a limit of five hundred employees would eliminate or reduce the factor of size. Such a limitation was believed to be important because of the general belief that planning is a function of the size of the firm.

All the subjects were manufacturing firms doing business in the State of Ohio. Although the study was limited to a single state, it is felt that the findings have wider significance.

Another limitation results from the fact that measures of company performance are subjective and judgmental rather than objective in nature.
Definitions of terms used

Several important terms used in this study require a specific definition. In management literature, the terms may have several meanings; therefore, precise selection of a pertinent meaning is appropriate.

Plan — "a predetermined course of action."11

Planning — "the managerial function of determining in advance what a group or an individual should accomplish and how the goals are to be attained."12

Forecast — an attempt to find the most probable course of events or range of probabilities. Forecasts may be concerned with general economic, industry, company sales, population, and related business conditions.


Objectives -- values that should be created, acquired, preserved, or distributed.\textsuperscript{13}

Organization of the remainder of the dissertation

In the next chapter, the conceptual framework of the study is developed and previous research underlying the adoption of certain planning principles for the sake of organizational efficiency is cited.

In Chapter III the methodology of the study is presented. The nature of the sampling procedure is reviewed and the appropriateness of the statistical techniques used in the analysis of the data are discussed.

In Chapter IV the results of the analysis of the data and an analysis of the findings in light of the hypotheses are presented. In this chapter, indication is also made of the problems encountered in the conduct of the study.

In Chapter V a summary of the findings of the study and the conclusions are stated. Several recommendations are presented.

\textsuperscript{13} R. C. Davis, \textit{op. cit.}, p. 97.
CHAPTER II

THEORETICAL FRAMEWORK

Chapter perspective

In this chapter, the nature of planning will be briefly identified. The characteristics of a good plan are then discussed. It is then pertinent to discuss the importance of planning and the benefits derived from the performance of this activity. Limitations encountered in the performance of planning are then presented. Finally, a review of the previous research which has relevance to this investigation will be presented. The objective is to show the basis for the logic of the approach and the variables selected in this study.

The nature of planning

Planning is one of the organic functions of management that precedes the other organic functions of organizing and controlling. It involves mental activity and specifies what
should be done, how it should be done, where action is effected, who is responsible, and why such action is necessary. It involves the selection of suitable alternatives for any activity. As such, planning provides the action steps for achieving organization goals and objectives. Henri Fayol conceptualized planning as follows:

The maxim, "Managing means looking ahead", gives some idea of the importance attached to planning in the business world, and it is true that if foresight is not the whole of management at least it is an essential part of it. To foresee, in this context, means both to assess the future and make provision for it; that is, forecasting is itself action already. Planning is manifested on a variety of occasions and in a variety of ways, its chief manifestation, apparent sign and most effective instrument being the plan of action. The plan of action is, at one and the same time, the result envisaged, the line of action to be followed, the stages to go through, and methods to use. It is a kind of future picture wherein proximate events are outlined with some distinctness, whilst remote events appear progressively less distinct, and it entails the running of the business as foreseen and provided against over a definite period.

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14 R. C. Davis, op. cit., p. 43.
15 Ibid., p. 43.
16 Payol, op. cit., p. 43.
Planning is related to the future in terms of where a company wants to go and how it will get there. These questions require the establishment of goals and objectives, making forecasts, and specifying actions for achieving the desired objectives.

The heart of business planning is the establishment of basic objectives. They are values that should be created, acquired, preserved, or distributed. As such, they set the tone, direction, and pattern for decisions and plans. In this respect, Koontz and O'Donnell state:

Planning must be for or toward some goal to be meaningful, because the objective gives the key as to what basically to do, where to place the primary emphasis, and what to accomplish by the network of policies, procedures, budgets, and programs.

Urwick declares that "It is impossible to plan in a void, about nothing. There must be an objective that sounds obvious."  

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17 R. C. Davis, op. cit., p. 97.
18 Koontz and O'Donnell, op. cit., p. 448.
An examination of the company's over-all goals and objectives will provide the specific planning objective. The usual goals for the firm as a whole may be those which concern the type of business the company will be engaged in, profit and increased sales, optimum rate of return on investment, market share, or survival and growth. Such goals give impetus to the planning process and lead to other more detailed goals pertaining to sales, expenses, advertising, production, purchases, finance, research and development, and manpower.

Forecasts are attempts to find the most probable course of events or range of probabilities. They are pictures or outlines of what can reasonably be expected to happen in the future in sales, technological progress, population trends, gross national product, etc.

Forecasting is an integral part of the planning process, but something different from planning itself. According to Newbury:

20 LeBreton and Henning, op. cit., p. 8.
There can be no intelligent or effective planning for a business enterprise without the preliminary step of forecasting. The planned objectives of management can be realized only when there is a reasonably accurate forecast of the trend of general business and of the sales income of the specific company. The businessman cannot act on the spur of the moment. Successful management requires that the businessman look ahead and make plans. In short, he must plan, and he must forecast in order that he can plan. 21

Urwick explains that the planner must

Recognize the existence and necessity of the need for forecasting. Appreciate that the administrator has to prophesy, however little he may feel that he is among the prophets. He should be conscious about what he is going; never drift into forecasts or plans based on them without recognizing that there has been a deliberate estimate of what the future will hold. 22


It appears that while the aim of forecasts is to show what the future will be, planning seeks to take advantage of them by converting them into objectives, budgets, policies, programs, schedules, and procedures which guide the company action. Such planning is performed in the basic business functions of production, marketing, and finance as well as for the firm as a whole.

The general characteristics of a plan

If one is to plan successfully, he must provide the characteristics inherent in a good plan. R. C. Davis states that "There must be some basic characteristics of every good plan, because it should conform to certain general objectives and requirements."\(^2^3\) He believes that "The quality of business plans and planning is an important determinant of business success."\(^2^4\) He believes that the basic characteristics of every good plan are: objectivity, logical soundness, futurity, flexibility, stability, comprehensiveness, and simplicity.\(^2^5\) According to Henri Fayol the

\(^2^3\) R. C. Davis, *op. cit.*, p. 45.
general features of a good plan of action are unity, continuity, flexibility, and precision. In the following pages certain characteristics of a good plan that are investigated in this study will be briefly presented and discussed.

Objectives in the plan. According to Urwick, the first characteristic of a good plan is "that it is based on a clearly defined objective." Such objectives are related to the company as a whole and to the principal functions of the business. They should not be colored by bias and should consider customer wants and desires as well as profits of the business.

Accuracy of forecasts. The development of a plan requires that forecasts be made. However, for a forecast to be useful for management planning, it should have a degree of accuracy. Acceptability of the forecast to users may be impaired if its accuracy is low. A poor plan may be the result of a poor forecast.

26 Urwick, op. cit., p. 34.
Selection from alternatives. Planning is a conscious process of selecting from alternatives and developing the best course of action to accomplish an objective. Therefore, to make a plan of action requires that many alternatives be considered and evaluated in order to select the best alternative or the proper course of action. The best alternative is the one that will provide the greatest total amount of desirable results and the smallest total amount of undesirable results.

The need to consider and evaluate many alternatives arises from the uncertainties of the future and from the fact that there are many ways to accomplish an objective. It follows that the ability to plan business activities successfully depends on the ability to develop and evaluate several alternatives.

Top management support. The chief executive and his principal advisers are the focal point for planning. They should have understanding and appreciation of planning as an effective tool
for management. Their interests and attitudes toward planning will decide the success of the planning task. In this respect Branch says:

It is the chief executive officer, therefore, and those senior managers reporting to him in a line or staff capacity who constitute the key management group for corporate planning. If their interest in planning is low — but not to the extent of its prohibition — they cannot be circumvented without enormous loss in the effectiveness of the planning program. Nor, in response to their abrogation of the responsibility, can plans be drawn and carried out satisfactorily for them by others.27

In summary, top management must give active support to the planning effort and not merely lip service.

Managers' participation. Participation in the formulation of plans is considered by most scholars as a prerequisite to the successful accomplishment of business objectives. It makes enthusiasm for the wholehearted implementation of the plans.

In speaking of the value of participation R. C. Davis says:

The greatest practicable participation in the performance of any managerial functions is desirable, provided that there are no important violations of the principles of unity of command, direction, or single accountability. Participation promotes an understanding of the activity. It develops an interest in it and improves morale. It makes maximum use of the brains and ability of the organization. The Principle of Participation says: A feeling of "worthwhileness" and "belonging" tends to develop from participation in the making of decisions underlying the accomplishment of organizational objectives. It tends to integrate the interests and abilities of individuals with the organization's purposes.28

Coordination of plans. The complexity of business operations requires the development of many major and subsidiary plans. To be effective, these various plans must be coordinated and harmonized with other plans in the organization. Without coordination of the activities of all the company, no assurance is created for actually achieving the goals.29

28 R. C. Davis, op. cit., p. 200.

Availability of plans. Plans must be available to all those responsible for their implementation. Such availability of plans might cause competitors to learn details of a planned action. However, it is believed that this will be offset by having fully informed managers.

In speaking of the value of availability of plans, Koontz and O'Donnell say:

One of the principal causes for failure of business planning in practice is the neglect of top managers to inform their subordinates of plans being undertaken and of their part in them.\(^{30}\)

Short and long-run plans. How far into the future should firms plan their business activities? Apparently there is no ready answer to this question. It is the nature of the business and the nature of the decision which determine the time-spans of planning.\(^{31}\)

\(^{30}\) Koontz and O'Donnell, \textit{op. cit.}, p. 533.

Koontz and O'Donnell believe that planning should encompass the period of time necessary to fulfill the commitments involved.\textsuperscript{32}

No matter what the planning period should be, most firms are likely to use both long and short-range plans for their various business activities. However, short-run plans are derived from long-range plans and must always complement them. In this regard, R. C. Davis states:

It is probable that the ability to plan accurately and in detail always will be limited to a short-time span in advance of the time objective of a particular project. Yet some long-range planning in business is necessary. Short-range planning must be based on it. Otherwise, it represents merely expedient action.\textsuperscript{33}

In substance, both long and short-range planning are needed in a business. However, short-range plans should contribute to long-range plans.

The testing of plans. Once a plan is developed, it should be tested to give assurance that it is going to operate as envisioned by the framers.

\textsuperscript{32} Koontz and O'Donnell, \textit{op. cit.}, p. 468.

\textsuperscript{33} R. C. Davis, \textit{op. cit.}, p. 48.
Davis states that "it is dangerous to activate a business plan until it has been tested to a degree that gives reasonable assurance of its success." 34

**Provision of control.** Effective planning requires that proper and adequate follow-up is made to compare the actual performance to the preconceived plan in order to take corrective action and revise the plan if necessary.

**Attainability.** Effective planning requires that the plans should be attainable and within the reach of the company.

**Flexibility.** A flexible plan is "one that can be adjusted to the requirements of changing conditions without serious loss of economy and effectiveness." 35 The many factors and unforeseeable events which are considered in the plans change rapidly and dictate a need for greater flexibility in business plans.

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34 Ibid., p. 71.
Clearly understood. Effective implementation of the plan requires a clear understanding of it by those who are responsible for its execution. Such clarity may result from a logical development of the basis of action and from stating the plan in a simple, clear language.

Acceptability. To be effective, the plan must be acceptable to those responsible for its attainment.

Kept in written form. Just because a plan is kept in written form does not mean that it is a good one. However, a written statement of the plan gives it definiteness and makes it harder for managers to ignore.

Results of planning

According to Davis, a plan provides a basis for economical and effective action in the achievement of business objectives and that "the quality of business plans and planning is an important determinant of business success." 36 Henri C. Metcalf in his description of the attributes of leadership states that success is

36 R. C. Davis, op cit., p. 43.
not attained, regardless of the personal qualities of the leader, unless goals are established, means for attaining them clearly thought out, the plans are definitely laid out and put into the proper form for easy understanding of those responsible for carrying them out. In a research study, it was found that good management and especially sound planning methods are a means of improving a company's odds for success. A successful company is identified as one which has a forward-looking program to promote the future. Other benefits may be derived from planning:

1. Company strengths are made use of and weaknesses are corrected
2. Company crises situations and crises decisions are avoided
3. The company is enabled to remain competitive with other firms
4. The company is helped in recognizing and defining the problem in a way that a solution can be found
5. The company is enabled to anticipate customer needs
6. The company is enabled to be efficient

38 Maines, op. cit., p. 23.
7. Company methods of doing work are improved and costs are reduced
8. Company pressures are avoided
9. Company oversights and mistakes are prevented
10. The company is enabled to establish a basis for control
11. The company is enabled to motivate managers
12. Company managers are kept alert to the objectives of the firm

These benefits are directed toward the reduction of ad hoc management and enhance a company's odds for success.

In view of the relationship between planning and business success, this study considers the following criteria as indications of success:

1. The above twelve benefits derived through planning.
2. Satisfaction with profits.

**Limitations and difficulties of planning**

The performance of planning in business is not without limitations and difficulties. The following are believed to be some of these difficulties:

39

These benefits were derived from the literature written about planning and its value in business.
1. Government control
2. Business cycle influences
3. Lack of accurate data
4. Inadequate forecasting techniques
5. Personnel limitation
6. Executives have more regard for the present than for the future
7. Executives are preoccupied with day-to-day operations
8. Lack of enthusiasm from managers
9. Lack of cooperation among managers

With the exception of the first two limitations (government control and business cycle influences), these difficulties are believed to be within the jurisdiction of effective management. They can be overcome and corrected through sound management practices.

A review of research

In this section, a review of some of the basic research which has relevance to the problem of planning in business will be presented. Although the studies are not empirical, they provide insights into the subject of planning.

40 These limitations were derived from literature and particularly from Cleland, op. cit., p. 162.
Cleland study (1962). The main purpose of this study was to examine the origin and development of the philosophy of long-range planning in American business. However, the study provides information about long-range planning practices of ninety-one nationally known companies.

Cleland found that 86.4% of the responding companies are doing long-range planning; fifty-three companies create alternative plans while twenty-six have one best plan; sixty-three companies develop contraction and growth plans and sixteen develop growth plans only; forty-six companies develop a master plan while twenty-five have no master plan; fifty-six companies perform planning on a continuous basis and twenty-six on an intermittent basis.\(^4\) Internal conditions necessitating the development of long-range planning are: trend to industrial decentralization, company growth and complexity, growing obsolescence of equipment, aging of key executive personnel and ultimate retirement of founders, and internal dissatisfaction with decentralized unit and

\(^4\) Cleland, op. cit., pp. 106-110
corporate profit margin. The external factors which created the need for long-range planning are believed to be: competitive elements, availability of planning data and tools, union influences, social factors, production techniques, and government considerations.  

The results of long-range planning are reported to be: new product lines, product diversification, company acquisitions, executive development program, company reorganizations, organizational decentralization, and company mergers.  

In considering the elements of long-range planning, Cleland states: "As yet no standard and comprehensive definition of long-range planning has been formulated; however, it is believed that such a definition should include the following elements:

1. Long-range planning is an orderly analysis of external economic factors affecting the company as a whole.

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42 Ibid., pp. 111-121.

43 Ibid., p. 174.
2. Long-range planning contemplates all internal factors, forces, and effects of the organization.

3. Long-range planning contains a high degree of futurity.

4. As performed by top-management group, it has to do with broad over-all programs and policies important to the organization as a whole.

5. Long-range planning, as an executive process, encompasses all functional areas of the organization; all aspects of the organization which may change in the future are evaluated in the process.

6. In the truest sense, long-range planning is a formalized process accomplished throughout the organizational structure; a specific staff agency exists as a focal point for the process.

7. Long-range planning is carried on by the institutional mind of the organization and as such exists as a concept beyond the frame of reference of a single individual.

8. It coordinates all the people and
functions of a company and involves much more than business forecasting.

9. As an intellectual process, long-range planning prepares the corporate entity to adjust to future conditions; in its conceptual sense long-range planning shapes the future according to a corporate image.

10. Long-range planning is effected within a moral, social, and ethical framework; it facilitates accomplishing the service objective of the organization.

11. It is not forecasting; long-range planning is necessary because one cannot forecast. It does not deal with future decisions; it deals with the futurity of present decisions. It does not attempt to eliminate risk; rather it identifies the proper risks that must be assumed by the business.

12. Long-range planning is not an entity in itself; its primary purpose is to provide the guidelines necessary for vital decision making throughout the organization. 

\[44\]

\[Ibid., pp. 189-190.\]
American Management Association study (1962). This study contains an investigation of the procedures and policies of specific companies in the area of business planning. In the study, the results of good planning were reported:

1. Business success
2. Increased ability of managers to recognize problems
3. Improved budget planning
4. Managers motivated to high-level achievement
5. A clearer statement of priorities
6. Reduction of waste and duplication
7. A clearer visualization of the kinds of changes in organization that needed to be made

Minnesota study (1961). This study contains an investigation of the place of forecasting in basic planning for small business. The study, encompassing one hundred and six small manufacturers in Minnesota, presented an examination of the extent of planning and forecasting among small manufacturers, the responsibility for setting objectives, the areas considered in planning, and the data used in forecasting. In the study, planning as a consistent

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practice was reported by twenty-three of the one hundred and six firms and as an occasional practice by twenty-four. As to the question who sets objectives in the small firm, the study found these to be: the owner or president, family conference, board of directors, president and top officers, and others. The areas considered in planning were reported to be: product or product lines, production capacity or methods, market or market areas, financing, distribution channels, and personnel. The sources of data used in forecasting were found to be: government agencies, trade association or trade journal, internal data, customers, past experience, newspapers, university publications, and others.

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48 Ibid., p. 20.
Stanford Research Institute study (1957).
After a two-year initial study of about four hundred large companies covering an eighteen-year period, the Stanford Research Institute concluded that a successful growth company has forward-looking programs to promote its future in such areas as product development, market development, company acquisitions, organization or management development, and operations research.\(^9\) Companies that have grown rapidly have given evidence of supporting future growth programs such as for long-range company planning, product research and development, market research, diversification into other product fields and markets, and acquisition of other companies.\(^50\) Good management and sound planning methods are thought of as a means of improving a company's odds for success.

**Chapter summary**

Planning is concerned with the development of plans to accomplish certain objectives. It

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specifies what should be done, how it should be done, where action is effected, who is responsible, and why such action is necessary. It involves the selection of suitable alternatives for any activity. Planning thus provides the action steps for achieving organization goals and objectives.

The heart of business planning is the establishment of basic goals or objectives. These may be any values that should be created, acquired, preserved, or distributed. These goals set the tone, direction, and pattern for decisions and plans. They should be clearly specified for the organization as a whole as well as for its major activities.

Another ingredient of business planning is the making of forecasts. Forecasts are outlines of what can reasonably be expected to happen in the future in sales, technological progress, population trends, gross national product, and other factors that affect the performance of a particular business in its endeavor to accomplish the organizational objectives.
Objectives and forecasts are integral parts of the planning process. However, planning occurs later when these objectives and forecasts are converted into budgets, policies, programs, schedules, and procedures which guide the company action. Such planning is performed in the basic business functions as well as for the business as a whole.

There are certain characteristics inherent in every good plan. These characteristics determine the quality of business plans and planning. Their provision is believed to be an important determinant of business success. The general characteristics of a good plan are believed to be: it is based on clearly defined objectives, that forecasts are made and these forecasts are reasonably accurate, many alternatives are considered and evaluated, top-management support to plans and planning, managers' participation in the development of plans, plans are coordinated and harmonized with one another, availability of plans to
those responsible for implementing them, short and long-run plans are made, plans are tested before they are put into effect, control is provided to make certain that plans are carried out, plans are attainable and within the reach of the firm, plans are flexible and are changed as the situation warrants, plans are clearly understood by those responsible for their attainment, plans are acceptable by those responsible for their attainment, and that plans are kept in written form.

Planning is a basic and important managerial function. Such importance has resulted from the existence of uncertainty and change in the business environments and the desire to accomplish the business objectives economically and effectively.

The first benefit to be obtained from business planning is business success. Success can be looked at in terms of making adequate
profits and achieving a reasonable growth rate in sales. Other benefits are expected to be related to planning. These include: company strengths are made use of and weaknesses are corrected, crises situations and crises decisions, pressures, oversights and mistakes are prevented, the ability to remain competitive with other firms, to recognize and define problems, to anticipate customer needs, to be efficient, and to improve the methods of doing work is improved, and finally the company is enabled to establish a basis for control, to motivate managers, and to keep managers alert to the objectives of the firm.

The performance of planning is not without limitations and difficulties. The difficulties of planning are: government control, business cycle influences, lack of accurate data, inadequate forecasting techniques, personnel limitations, more regard on the part of managers for the present than for the
future, preoccupation with day-to-day operations, lack of enthusiasm for planning, and lack of cooperation among managers are but a few of the difficulties of planning. It is believed, however, that most of these difficulties are within the jurisdiction of management. They can be overcome and corrected through sound management and planning practices.

Few empirical research studies of planning and its value in business have been made. Cleland in his research found that the existing philosophy of long-range planning in American business is composed of a framework of principles, ideas, and concepts which are given an identifiable and separateness and unity of their own. He also reported that the results of long-range planning are: new product lines, product diversification, company acquisitions, executive development program, company reorganizations, organizational decentralization, and company mergers. The Stanford Research Institute in its study of about four hundred companies
found that a successful growth company has forward-looking programs to promote its future in such areas as product development, market development, company acquisitions, organization or management development, and operations research.
CHAPTER III

METHODOLOGY

Chapter perspective

In this chapter, the setting for the study and the composition of the sample will be briefly identified. A description of the method of measuring the variables under study will be provided. Finally, a discussion of the tests of the hypothesized interrelationships will be presented.

Setting for the study

The sample for the study was Ohio small manufacturing companies, each employing between one hundred and five hundred employees. According to the 1965 directory of Ohio manufacturers, there were fourteen hundred and ninety-four such firms in 1964. These firms represent about 11.4% of the total number of thirteen thousand and six Ohio manufacturers.
Participants for the study were selected one subject at 1, 2, or 3-page intervals through the Directory of Ohio Manufacturers 1965. The criterion for inclusion was solely the number of employees. The companies were selected to represent a range in size, industry, and geographical location in the state. Two hundred and twenty-one subjects were obtained from the directory.

Method of measurement

In order to test the hypothesized interrelationships between the investigated variables, a quantification of these variables was undertaken. Inasmuch as planning is the responsibility of top management, the company president or some high officers are the only judges of the planning performed and the satisfaction with profits and sales growth. Likert's technique for measuring attitudes and perceptions is adaptable to this task. Personal interviewing was eliminated as
an alternative not only for economic reasons but also for the complexity it would introduce into interpretation.

Pretest and revisions. The items for the questionnaire were developed by reviewing the literature. The questionnaire was administered to an introductory business class of thirty-two members at The Ohio State University. Comments and general reactions suggested the reconstruction of the format and the items. In addition, several suggestions were received from professors and fellow students in the Business Organization Department. After revisions, twenty copies were forwarded to presidents of small manufacturing companies in Columbus, Ohio, as a pretest. Six were returned with answers that were used for further revisions of the questionnaire.

However, one difficulty experienced in the field testing was that some companies declined to give the average per cent of return on capital invested in the firm or to state the
actual rate of growth in sales. Contacting these companies by the telephone indicated the impossibility of obtaining these figures. As a remedy for this difficulty, the questions pertaining to these two areas were changed to satisfaction scales and the respondent was asked to indicate the degree to which he is satisfied with the profit and growth in sales made by his company during the last five years.

**Questionnaire formulation.** Likert's questionnaire involves a number of items to which the respondent is asked to indicate the degree to which he "endorses" each item. Typically, the "degree of endorsement" ranges from "strongly agree" to "strongly disagree." These qualitative judgments are scored. For example, the response could be scored from 1 to 5, with 1 representing the extreme "anti" answer and 5 the extreme "pro" answer. This type of questionnaire was used in the present study.
Two types of questioning were used. The first type involves questions relating to the extent of establishing objectives in specific business areas, making forecasts, developing plans, providing certain qualities in the developing of plans, receiving specific benefits through planning, facing certain difficulties in planning performance, satisfaction with profits, and satisfaction with sales growth. The second type of the questioning involves questions about the age of the company, its size in terms of number of employees and annual dollar sales, years of experience of the managers, and number of college graduates who have managerial positions. A format of the questionnaire is presented in Appendix A.

In the first section of the questionnaire, the respondent was asked to indicate the extent to which his company establishes goals or objectives in certain business areas and for the firm as a whole, makes specific forecasts,
performs planning in specific business areas and for the firm as a whole, and considers certain factors in the process of developing business plans. The following values and responses were used:

<table>
<thead>
<tr>
<th>Stem</th>
<th>Meaning</th>
<th>Point Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Always</td>
<td>5</td>
</tr>
<tr>
<td>B</td>
<td>Often</td>
<td>4</td>
</tr>
<tr>
<td>C</td>
<td>Undecided</td>
<td>3</td>
</tr>
<tr>
<td>D</td>
<td>Seldom</td>
<td>2</td>
</tr>
<tr>
<td>E</td>
<td>Never</td>
<td>1</td>
</tr>
</tbody>
</table>

In the second section of the questionnaire, the respondent was asked to indicate how useful planning is for the attainment of specific benefits in his company. The following values and responses were used for this scale:

<table>
<thead>
<tr>
<th>Stem</th>
<th>Meaning</th>
<th>Point Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Very Useful</td>
<td>5</td>
</tr>
<tr>
<td>B</td>
<td>Useful</td>
<td>4</td>
</tr>
<tr>
<td>C</td>
<td>Undecided</td>
<td>3</td>
</tr>
<tr>
<td>D</td>
<td>Not Very Useful</td>
<td>2</td>
</tr>
<tr>
<td>E</td>
<td>Not At All Useful</td>
<td>1</td>
</tr>
</tbody>
</table>
In the third section of the questionnaire, the respondent was asked to indicate the degree to which certain planning limitations are encountered in his company planning performance. The following values and responses were used for this scale:

<table>
<thead>
<tr>
<th>Stem</th>
<th>Meaning</th>
<th>Point Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>A Serious Limitation</td>
<td>5</td>
</tr>
<tr>
<td>B</td>
<td>A Limitation</td>
<td>4</td>
</tr>
<tr>
<td>C</td>
<td>Undecided</td>
<td>3</td>
</tr>
<tr>
<td>D</td>
<td>A Minor Limitation</td>
<td>2</td>
</tr>
<tr>
<td>E</td>
<td>Not A Limitation</td>
<td>1</td>
</tr>
</tbody>
</table>

In the fourth section of the questionnaire, the respondent was asked to provide data about age of the company, its size, etc. In addition, he was asked to indicate the extent to which he is satisfied with the profit and growth in sales made by his company during the last five years. The following values and responses were used for each of these satisfaction scales.

<table>
<thead>
<tr>
<th>Stem</th>
<th>Meaning</th>
<th>Point Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Extremely Satisfied</td>
<td>5</td>
</tr>
<tr>
<td>B</td>
<td>Satisfied</td>
<td>4</td>
</tr>
<tr>
<td>C</td>
<td>Undecided</td>
<td>3</td>
</tr>
<tr>
<td>D</td>
<td>Dissatisfied</td>
<td>2</td>
</tr>
<tr>
<td>E</td>
<td>Extremely Dissatisfied</td>
<td>1</td>
</tr>
</tbody>
</table>
Likert's system of scoring calls for totaling the scores on all the individual items in a subscale to obtain a measure of the subject's behavior. This method was employed in scoring the questionnaire in this study.

It was assumed on the basis of a review of the literature that the items on the subscales measure judgments regarding company performance in establishing objectives, making forecasts, adhering to the qualities of planning, obtaining certain benefits, and facing limitations in planning and that the items can be added together to form composite scores. An item analysis was not performed to determine whether the items are in fact correlated with the subscale scores. As a result, the following scales with score ranges were obtained:

<table>
<thead>
<tr>
<th>Scale</th>
<th>Possible Score Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Establishing Objectives</td>
<td>From 9 to 45</td>
</tr>
<tr>
<td>Making Forecasts</td>
<td>From 10 to 50</td>
</tr>
<tr>
<td>Developing Plans</td>
<td>From 9 to 45</td>
</tr>
<tr>
<td>Quality of Planning</td>
<td>From 21 to 105</td>
</tr>
<tr>
<td>Benefits of Planning</td>
<td>From 12 to 60</td>
</tr>
<tr>
<td>Limitations of Planning</td>
<td>From 9 to 45</td>
</tr>
<tr>
<td>Satisfaction with Profits</td>
<td>From 1 to 5</td>
</tr>
<tr>
<td>Satisfaction with Sales Growth</td>
<td>From 1 to 5</td>
</tr>
</tbody>
</table>

These values along with values obtained on the age of the company, number of employees, annual dollar
sales, years of experience of the managers, and number of college graduates who are in managerial positions provided the bases for calculation of the correlations.

Data collection

From the Directory of Ohio Manufacturers 1965, a list was obtained containing names and addresses of two hundred and twenty-one manufacturing companies, each employing from one hundred to five hundred employees, selected at 1, 2 or 3-page intervals through thirty-nine counties and eighteen industries. In order to maintain the anonymity needed in the study and to be able to identify the questionnaire responses, each company was assigned a code number from 1 to 221. An introductory letter, a stamped, self-addressed envelope, and a coded questionnaire corresponding to the company's assigned number were sent to each company president. He was requested to return the completed questionnaire in the envelope previously addressed to College of Commerce, The Ohio State University. A follow-up
letter was sent later. As a result, one hundred and eighteen questionnaires were returned. Of those, ninety-four were usable.

Tables 1, 2, and 3 show the numbers sent out, returned, and usable questionnaires for the companies involved in the study classified by number of employees, industry, and county, respectively.

It is noted that the usable returns conform rather well to the characteristics of the universe, i.e., by number of employees, industry, and county. The requirement of proportionality has been met at least roughly.

In Ohio, there were one thousand, four hundred and ninety-four manufacturing firms in 1961, each employing between one hundred and five hundred employees. About 70% of these firms had employment between one hundred and two hundred and forty-nine employees, while 30% had employment between two hundred and fifty and four hundred and ninety-nine employees. As can be seen from Table 1, this requirement of proportionality has been met rather well.
### TABLE 1

NUMBER OF QUESTIONNAIRES SENT, RETURNED, AND USED CLASSIFIED BY NUMBER OF EMPLOYEES

<table>
<thead>
<tr>
<th>Number of Employees*</th>
<th>Sent</th>
<th>Returned</th>
<th>Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>451 - 500</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>401 - 450</td>
<td>5</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>351 - 400</td>
<td>14</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>301 - 350</td>
<td>19</td>
<td>11</td>
<td>6</td>
</tr>
<tr>
<td>251 - 300</td>
<td>20</td>
<td>12</td>
<td>11</td>
</tr>
<tr>
<td>201 - 250</td>
<td>36</td>
<td>18</td>
<td>14</td>
</tr>
<tr>
<td>151 - 200</td>
<td>39</td>
<td>22</td>
<td>18</td>
</tr>
<tr>
<td>101 - 150</td>
<td>86</td>
<td>46</td>
<td>39</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>221</strong></td>
<td><strong>118</strong></td>
<td><strong>94</strong></td>
</tr>
</tbody>
</table>

*Based on the data from Directory of Ohio Manufacturers 1965.
<table>
<thead>
<tr>
<th>Industry*</th>
<th>Number of Companies**</th>
<th>Number of Questionnaires</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Sent</td>
<td>Returned</td>
</tr>
<tr>
<td>Food and Kindred Products</td>
<td>158</td>
<td>17</td>
<td>8</td>
</tr>
<tr>
<td>Textile Mill Products</td>
<td>6</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Apparel and Other Products Made from Fabrics and Similar Materials</td>
<td>40</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>Lumber and Wood Products, Except Furniture</td>
<td>68</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Furniture and Fixtures</td>
<td>41</td>
<td>11</td>
<td>8</td>
</tr>
<tr>
<td>Paper and Allied Products</td>
<td>30</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Printing, Publishing and Allied Industries</td>
<td>160</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>Chemicals and Allied Products</td>
<td>73</td>
<td>16</td>
<td>12</td>
</tr>
<tr>
<td>Rubber and Miscellaneous Plastics</td>
<td>53</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Leather and Leather Products</td>
<td>8</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Stone, Clay, and Glass Products</td>
<td>104</td>
<td>10</td>
<td>4</td>
</tr>
<tr>
<td>Primary Metal Industries</td>
<td>65</td>
<td>21</td>
<td>13</td>
</tr>
<tr>
<td>Fabricated Metal Products, Except Ordnance, Machinery, and Transportation Equipment</td>
<td>213</td>
<td>52</td>
<td>27</td>
</tr>
<tr>
<td>Machinery, Except Electrical</td>
<td>277</td>
<td>39</td>
<td>21</td>
</tr>
<tr>
<td>Electrical Machinery, Equipment and Supplies</td>
<td>50</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>Transportation Equipment</td>
<td>30</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Professional, Scientific, and Controlling Instruments; Photographic and Optical Goods; Watches and Clocks</td>
<td>25</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Miscellaneous Manufacturing Industries</td>
<td>53</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>1454</td>
<td>221</td>
<td>118</td>
</tr>
</tbody>
</table>

**Based on estimates of 11.4% of the number of companies in each industry.
### TABLE 3

**NUMBER OF OHIO MANUFACTURING COMPANIES WITH EMPLOYMENT BETWEEN ONE HUNDRED AND FIVE HUNDRED EMPLOYEES IN THIRTY-NINE COUNTIES AND NUMBER OF QUESTIONNAIRES SENT, RETURNED, AND USED**

<table>
<thead>
<tr>
<th>Industry*</th>
<th>Number of Companies**</th>
<th>Questionnaires Sent</th>
<th>Returned</th>
<th>Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allen</td>
<td>13</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Ashland</td>
<td>6</td>
<td>2</td>
<td>2</td>
<td>2</td>
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<tr>
<td>Ashtabula</td>
<td>13</td>
<td>5</td>
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<tr>
<td>Auglaize</td>
<td>7</td>
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<td>2</td>
<td>2</td>
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<tr>
<td>Belmont</td>
<td>8</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Butler</td>
<td>19</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Clark</td>
<td>20</td>
<td>7</td>
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<td>4</td>
</tr>
<tr>
<td>Clinton</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Columbiana</td>
<td>19</td>
<td>3</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Cuyahoga</td>
<td>350</td>
<td>42</td>
<td>17</td>
<td>14</td>
</tr>
<tr>
<td>Franklin</td>
<td>89</td>
<td>36</td>
<td>20</td>
<td>15</td>
</tr>
<tr>
<td>Fulton</td>
<td>7</td>
<td>6</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Greene</td>
<td>5</td>
<td>4</td>
<td>2</td>
<td>1</td>
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<tr>
<td>Guernsey</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>0</td>
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<tr>
<td>Hamilton</td>
<td>160</td>
<td>45</td>
<td>21</td>
<td>15</td>
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<tr>
<td>Hancock</td>
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<td>2</td>
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<td>0</td>
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<td>Highland</td>
<td>4</td>
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<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Huron</td>
<td>10</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Jackson</td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Jefferson</td>
<td>6</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Lake</td>
<td>22</td>
<td>7</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Licking</td>
<td>10</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Lorain</td>
<td>26</td>
<td>3</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Locust</td>
<td>76</td>
<td>15</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Mahoning</td>
<td>33</td>
<td>3</td>
<td>3</td>
<td>3</td>
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<tr>
<td>Medina</td>
<td>11</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Others***</td>
<td>63</td>
<td>13</td>
<td>9</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td>997</td>
<td>221</td>
<td>118</td>
<td>94</td>
</tr>
</tbody>
</table>

---


**Based on estimates of 11.4% of the number of companies in each county.

***These involve: Carroll, Clermont, Coshocton, Crawford, Gallia, Geauga, Hardin, Harrison, Henry, Hocking, Holmes, Logan, and Marion.
As can be seen from Table 2, eighteen industries sent usable questionnaires. Again, the proportion of usable questionnaires in each industry conforms well with the proportionality of the number of companies existing in each industry.

Finally, as reported in Table 3, thirty-nine counties were involved in the study. The proportion of usable questionnaires in each county conforms roughly with the proportionality of the number of companies existing in each county.

**Tests of correlation**

For the tests of the interrelationships between scores of the variables identified previously, Pearson product-moment correlation coefficients of the form,

\[ r_{xy} = \frac{N \Sigma xy - \Sigma x \Sigma y}{\sqrt{N \Sigma x^2 - (\Sigma x)^2} \sqrt{N \Sigma y^2 - (\Sigma y)^2}} \]

were calculated. It is believed that the
Pearson technique would seem the most appropriate in view of the fact that the data are raw scores and ranking would be too cumbersome with the sample size. Further, the formula lends itself to electronic computation with a SCATRAN program.

In order to test the correlation between each of the success criteria considered in this study, i.e., benefits of planning, satisfaction with profits, and satisfaction with sales growth and the scores for establishing objectives, making forecasts, developing plans, and quality of plans, multiple correlation coefficients of the form

\[ r = \sqrt{\frac{B_1 P_1 + B_2 P_2 \cdots + B_i P_i}{(\sigma_y)^2}} \]

where: 
- \( B_i \) = regression coefficients 
- \( P_i \) = covariance of \( x \) with \( y \) 
- \( (\sigma_y)^2 \) = variance of \( y \)

were calculated for each relationship.
The computations of multiple correlation coefficients were also accomplished by the use of the computer. The SCATRAN program "Multiple Correlation and Regression," (MR-90) is readily adaptable to this task.
Chapter perspective

In this chapter, the data collected in the study are presented and their implications to the hypotheses of the study are discussed. The question of the nature of the data is first explored. Then correlation between planning performance and success criteria are interpreted. Finally, the intercorrelations between the variables of the study are analyzed.

Nature of the data

One hundred and eighteen of the original two hundred and twenty-one questionnaires were returned, and, of these, ninety-four were sufficiently complete to be used in this study.

The distribution of the scores of establishing objectives and developing plans in the major business areas and for the firm as a whole, making forecasts, quality of planning, limitations
of planning, benefits derived from planning, and satisfactions with profits and growth in sales are reported in Tables 4, 5, 6, 7, 8, and 9, respectively.

The distribution of the scores of company age, number of employees, annual dollar sales, number of years of experience of managers, and the number of college graduates who are in managerial positions are reported in Tables 10, 11, 12, 13, and 14, respectively. It is readily apparent that the variance within the distribution of these scores is of a magnitude to facilitate the display of significant intercorrelations if such exist.

Planning performance and business success

If hypotheses 1, 2, and 3 are confirmed, positive relations should exist between scores for business success (i.e., perceived benefits, satisfaction with profits, and satisfactions with the growth in sales) and scores for management practices in establishing objectives, making forecasts, performing planning, and providing the qualities of a good plan. Also, negative correlations should exist between judgments of success criteria and difficulties and limitations faced in planning performance.
### Table 4

**DISTRIBUTION OF OBJECTIVES AND PLANNING SCORES FOR NINETY-FOUR MANUFACTURING COMPANIES IN OHIO IN 1966**

<table>
<thead>
<tr>
<th>Scores</th>
<th>Objectives</th>
<th>Planning</th>
</tr>
</thead>
<tbody>
<tr>
<td>40 - 45</td>
<td>46</td>
<td>41</td>
</tr>
<tr>
<td>34 - 39</td>
<td>27</td>
<td>36</td>
</tr>
<tr>
<td>28 - 33</td>
<td>17</td>
<td>12</td>
</tr>
<tr>
<td>22 - 27</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Mean</td>
<td>38.032</td>
<td>37.649</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>5.129</td>
<td>5.231</td>
</tr>
</tbody>
</table>

### Table 5

**DISTRIBUTION OF MAKING FORECASTS SCORES FOR NINETY-FOUR MANUFACTURING COMPANIES IN OHIO IN 1966**

<table>
<thead>
<tr>
<th>Scores</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>45 - 50</td>
<td>7</td>
</tr>
<tr>
<td>39 - 44</td>
<td>24</td>
</tr>
<tr>
<td>33 - 38</td>
<td>28</td>
</tr>
<tr>
<td>27 - 32</td>
<td>28</td>
</tr>
<tr>
<td>21 - 26</td>
<td>7</td>
</tr>
<tr>
<td>Mean</td>
<td>35.043</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>6.907</td>
</tr>
</tbody>
</table>
### TABLE 6
**DISTRIBUTION OF QUALITY OF PLANNING AND PLANS SCORES FOR NINETY-FOUR MANUFACTURING COMPANIES IN OHIO IN 1966**

<table>
<thead>
<tr>
<th>Scores</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>99 - 105</td>
<td>8</td>
</tr>
<tr>
<td>92 - 98</td>
<td>29</td>
</tr>
<tr>
<td>85 - 91</td>
<td>20</td>
</tr>
<tr>
<td>78 - 84</td>
<td>28</td>
</tr>
<tr>
<td>71 - 77</td>
<td>5</td>
</tr>
<tr>
<td>- 70</td>
<td>4</td>
</tr>
</tbody>
</table>

Mean: 87.351
Standard Deviation: 9.272

### TABLE 7
**DISTRIBUTION OF LIMITATIONS OF PLANNING SCORES FOR NINETY-FOUR MANUFACTURING COMPANIES IN OHIO IN 1966**

<table>
<thead>
<tr>
<th>Scores</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>40 - 45</td>
<td>2</td>
</tr>
<tr>
<td>34 - 39</td>
<td>18</td>
</tr>
<tr>
<td>28 - 33</td>
<td>20</td>
</tr>
<tr>
<td>22 - 27</td>
<td>30</td>
</tr>
<tr>
<td>16 - 21</td>
<td>21</td>
</tr>
<tr>
<td>10 - 15</td>
<td>3</td>
</tr>
</tbody>
</table>

Mean: 26.479
Standard Deviation: 7.397
### TABLE 8

**DISTRIBUTION OF BENEFITS OF PLANNING SCORES FOR NINETY-FOUR MANUFACTURING COMPANIES IN OHIO IN 1966**

<table>
<thead>
<tr>
<th>Scores</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>55 - 60</td>
<td>18</td>
</tr>
<tr>
<td>49 - 54</td>
<td>29</td>
</tr>
<tr>
<td>43 - 48</td>
<td>34</td>
</tr>
<tr>
<td>37 - 42</td>
<td>8</td>
</tr>
<tr>
<td>31 - 36</td>
<td>5</td>
</tr>
<tr>
<td>Mean</td>
<td>48.819</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>6.280</td>
</tr>
</tbody>
</table>

### TABLE 9

**DISTRIBUTION OF PROFITS AND SALES GROWTH SATISFACTION SCORES FOR NINETY-FOUR MANUFACTURING COMPANIES IN OHIO IN 1966**

<table>
<thead>
<tr>
<th>Scores</th>
<th>Profits</th>
<th>Sales Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>14</td>
<td>21</td>
</tr>
<tr>
<td>4</td>
<td>43</td>
<td>48</td>
</tr>
<tr>
<td>3</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>2</td>
<td>28</td>
<td>16</td>
</tr>
<tr>
<td>1</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Mean</td>
<td>3.383</td>
<td>3.755</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>1.155</td>
<td>1.054</td>
</tr>
</tbody>
</table>
TABLE 10
DISTRIBUTION OF AGE
OF NINETY-FOUR MANUFACTURING COMPANIES
IN OHIO IN 1966

<table>
<thead>
<tr>
<th>Age (in years)</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>120 - 139</td>
<td>2</td>
</tr>
<tr>
<td>100 - 119</td>
<td>1</td>
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<tr>
<td>80 - 99</td>
<td>11</td>
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<td>60 - 79</td>
<td>18</td>
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<td>40 - 59</td>
<td>16</td>
</tr>
<tr>
<td>20 - 39</td>
<td>32</td>
</tr>
<tr>
<td>0 - 19</td>
<td>14</td>
</tr>
</tbody>
</table>

Mean: 47,000
Standard Deviation: 28,415

TABLE 11
DISTRIBUTION OF EMPLOYMENT OF
NINETY-FOUR MANUFACTURING COMPANIES
IN OHIO IN 1966

<table>
<thead>
<tr>
<th>Number of Employees*</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over 549</td>
<td>7</td>
</tr>
<tr>
<td>450 - 549</td>
<td>4</td>
</tr>
<tr>
<td>350 - 449</td>
<td>13</td>
</tr>
<tr>
<td>250 - 349</td>
<td>20</td>
</tr>
<tr>
<td>150 - 249</td>
<td>33</td>
</tr>
<tr>
<td>-149</td>
<td>17</td>
</tr>
</tbody>
</table>

Mean: 266,340
Standard Deviation: 143,016

*Based on data from the questionnaires.
### TABLE 12
#### DISTRIBUTION OF ANNUAL DOLLAR SALES VOLUME OF NINETY-FOUR MANUFACTURING COMPANIES IN OHIO IN 1966

<table>
<thead>
<tr>
<th>Annual Sales (in million $)</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over 14</td>
<td>4</td>
</tr>
<tr>
<td>12 - 14</td>
<td>5</td>
</tr>
<tr>
<td>9 - 11</td>
<td>4</td>
</tr>
<tr>
<td>6 - 8</td>
<td>25</td>
</tr>
<tr>
<td>3 - 5</td>
<td>37</td>
</tr>
<tr>
<td>0 - 2</td>
<td>19</td>
</tr>
</tbody>
</table>

**Mean** 5.723  
**Standard Deviation** 4.161

### TABLE 13
#### DISTRIBUTION OF YEARS OF EXPERIENCE OF THE MANAGERS IN NINETY-FOUR MANUFACTURING COMPANIES IN OHIO IN 1966

<table>
<thead>
<tr>
<th>Experience (in years)</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over 27</td>
<td>11</td>
</tr>
<tr>
<td>21 - 26</td>
<td>15</td>
</tr>
<tr>
<td>15 - 20</td>
<td>46</td>
</tr>
<tr>
<td>9 - 14</td>
<td>17</td>
</tr>
<tr>
<td>3 - 8</td>
<td>5</td>
</tr>
</tbody>
</table>

**Mean** 18.702  
**Standard Deviation** 7.699
TABLE 14

DISTRIBUTION OF
NUMBER OF COLLEGE GRADUATES WHO ARE
IN MANAGERIAL POSITIONS FOR
NINETY-FOUR MANUFACTURING COMPANIES
IN OHIO IN 1966

<table>
<thead>
<tr>
<th>College Graduates</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over 11</td>
<td>7</td>
</tr>
<tr>
<td>9 - 11</td>
<td>11</td>
</tr>
<tr>
<td>6 - 8</td>
<td>21</td>
</tr>
<tr>
<td>3 - 5</td>
<td>33</td>
</tr>
<tr>
<td>0 - 2</td>
<td>22</td>
</tr>
<tr>
<td>Mean</td>
<td>6.074</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>6.836</td>
</tr>
</tbody>
</table>
As reported in Table 15, significant positive correlations were found between perceived benefits derived and establishing objectives, performing planning, and quality of planning at the .01 level of significance and between benefits derived and making forecasts at the .05 significance level. These findings support hypothesis 1 and reinforce the belief that planning performance is related to desirable results in a company's performance.

The correlations in Table 15 also provide the measures for testing hypothesis 2. These findings do not, of course, support this hypothesis. Not only are the correlations between establishing objectives, making forecasts, developing plans, and the quality of plans and satisfaction with profits and sales growth insignificant, but some of them are in the wrong direction. Such results throw some doubt on the satisfaction criteria as measures of business success. Aggressive managers probably have very high aspirations and achievement goals that are difficult to accomplish. Another explanation is that perhaps the planning items which are
TABLE 15
CORRELATIONS BETWEEN PLANNING PERFORMANCE AND BUSINESS SUCCESS CRITERIA

<table>
<thead>
<tr>
<th>Planning Performance</th>
<th>Planning Benefits</th>
<th>Satisfaction Profits</th>
<th>Satisfaction Sales Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objectives</td>
<td>.51**</td>
<td>-.01</td>
<td>-.08</td>
</tr>
<tr>
<td>Forecasts</td>
<td>.22*</td>
<td>-.09</td>
<td>-.12</td>
</tr>
<tr>
<td>Plans</td>
<td>.57**</td>
<td>-.06</td>
<td>-.11</td>
</tr>
<tr>
<td>Quality of Plans</td>
<td>.68**</td>
<td>.02</td>
<td>.02</td>
</tr>
<tr>
<td>Limitations</td>
<td>.03</td>
<td>-.12</td>
<td>-.13</td>
</tr>
</tbody>
</table>

*Significant at the .05 level.
**Significant at the .01 level.
encompassed in this study are too general in scope to indicate their effects on profits and sales growth. Whatever the reason, the only conclusion that can be drawn from the data is that hypothesis 2 was not proved.

As reported in Table 15, negative but insignificant correlations are found between the limitations and difficulties faced in the performance of planning and the satisfaction with profits and growth in sales. The correlation between limitations and benefits derived is very low. These results lead to the rejection of hypothesis 3. The conclusion that can be drawn from these findings is that while businessmen in small manufacturing concerns face difficulties in their planning efforts, such difficulties do not have significant relationships to the benefits derived from planning or to the satisfactions with profits and growth in sales.

Multiple correlation coefficients were calculated between each of the business success
criteria and planning performance in terms of establishing objectives, making forecasts, developing plans, and quality of planning. These are reported in Table 16. It is noted that 44 percent of the variation in the benefits scores are accounted for by the variable of planning performance. No important variations in the satisfaction scores are accounted for by planning performance. These findings reinforce the relationships found between planning performance and planning benefits, satisfaction with profits, and satisfaction with sales growth.

**Intercorrelations**

In order to find the interrelationships between the business success criteria, planning scales, certain company characteristics, company characteristics and planning performance, and company characteristics and success criteria, intercorrelations between these variables were calculated.
## TABLE 16
MULTIPLE CORRELATION COEFFICIENTS BETWEEN PLANNING PERFORMANCE AND PLANNING BENEFITS, SATISFACTION WITH PROFITS, AND SATISFACTION WITH SALES GROWTH

<table>
<thead>
<tr>
<th></th>
<th>Multiple r</th>
<th>r^2</th>
<th>F-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning Benefits</td>
<td>.66*</td>
<td>.44</td>
<td>17.5</td>
</tr>
<tr>
<td>Satisfaction with Profit</td>
<td>.15</td>
<td>.02</td>
<td>.52</td>
</tr>
<tr>
<td>Satisfaction with Sales Growth</td>
<td>.20</td>
<td>.04</td>
<td>.92</td>
</tr>
</tbody>
</table>

*Significant at the .01 level.
Intercorrelations between the success criteria. As reported in Table 17, no significant correlations were found between the perceived benefits derived through planning and satisfaction with either profit or sales growth. This finding does not support hypothesis 4. It leads to the conclusion that receiving benefits through planning does not result in the satisfaction with the profit and sales growth. A significant positive correlation, however, is found between the satisfaction with profits and the satisfaction with sales growth and indicates that those businessmen who are satisfied with their business sales growth are also satisfied with the profit made by their companies during the last five years.

Intercorrelations between planning scales. An examination of Table 18, which consists of a matrix of the intercorrelations among planning scales, reveals large and significant relationships. The businessman of the small manufacturing company who establishes objectives for the principal areas of the business and for the firm as a whole tends also to make more forecasts, develops more plans
TABLE 17

INTERCORRELATION BETWEEN SUCCESS CRITERIA

<table>
<thead>
<tr>
<th></th>
<th>Planning Benefits</th>
<th>Satisfaction (Profits)</th>
<th>Satisfaction (Sales Growth)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning Benefits</td>
<td></td>
<td>0.13</td>
<td>0.08</td>
</tr>
<tr>
<td>Satisfaction (Profits)</td>
<td></td>
<td>-</td>
<td>0.59*</td>
</tr>
<tr>
<td>Satisfaction (Sales Growth)</td>
<td></td>
<td></td>
<td>-</td>
</tr>
</tbody>
</table>

*Significant at the .01 level.
<table>
<thead>
<tr>
<th>Planning Scales</th>
<th>Objectives</th>
<th>Forecasts</th>
<th>Plans</th>
<th>Quality</th>
<th>Limitations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objectives</td>
<td>—</td>
<td>.53**</td>
<td>.89**</td>
<td>.67**</td>
<td>-.09</td>
</tr>
<tr>
<td>Forecasts</td>
<td>—</td>
<td>—</td>
<td>.52**</td>
<td>.50**</td>
<td>.21*</td>
</tr>
<tr>
<td>Plans</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>.69**</td>
<td>-.09</td>
</tr>
<tr>
<td>Quality</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>.03</td>
</tr>
<tr>
<td>Limitations</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

*Significant at the .05 level.

**Significant at the .01 level.
in the various business areas and for the firm as a whole, and adheres more to the qualities of a good plan.

While no significant relationships exist between limitations faced in planning performance, objectives, plans, and quality of plans, a somewhat significant positive correlation exists between planning limitations and making forecasts. This can be explained by the fact that most of the limitations scale items are difficulties that are pertinent to the forecasting process.

Intercorrelations among company characteristics. The intercorrelations between company characteristics are contained in Table 19. Most of the relationships are obvious and predictable. Thus, the older firm has more experienced managers and employs more college graduates for managerial positions. The firm with high employment has higher annual sales and employs more college graduates in managerial positions. Finally, the company which has a high annual sales column has more college graduates in management positions.
<table>
<thead>
<tr>
<th>Company Characteristics</th>
<th>Age</th>
<th>Number of Employees</th>
<th>Annual Sales</th>
<th>Experience</th>
<th>College Managers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td>.09</td>
<td>.16</td>
<td>.26*</td>
<td>.21*</td>
</tr>
<tr>
<td>Number of Employees</td>
<td></td>
<td></td>
<td>.64**</td>
<td>-.02</td>
<td>.41**</td>
</tr>
<tr>
<td>Annual Sales</td>
<td></td>
<td></td>
<td>.16</td>
<td>.44**</td>
<td></td>
</tr>
<tr>
<td>Experience</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>College Managers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-.09</td>
</tr>
</tbody>
</table>

*Significant at the .05 level.

**Significant at the .01 level.
Company characteristics and planning performance. In order to find whether certain characteristics influence planning performance, correlation coefficients between these variables were calculated. The results are reported in Table 20.

The age of the company, its size in terms of number of employees and annual sales volume, and years of experience of the managers appear unrelated with any of the five planning scales.

The number of college graduates who are in management positions appears to be an important factor. Companies having more college graduate managers tend more frequently to establish objectives, develop plans, and meet the requirements of a good plan.

Thus, the connection between certain company factors considered in this study and planning performance is not as pronounced as one might expect. The one factor that does seem significant is the number of college graduates holding managerial positions. But,
<table>
<thead>
<tr>
<th>Company Characteristics</th>
<th>Planning Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Objectives</td>
</tr>
<tr>
<td>Age</td>
<td>.15</td>
</tr>
<tr>
<td>Number of Employees</td>
<td>.05</td>
</tr>
<tr>
<td>Annual Sales</td>
<td>.12</td>
</tr>
<tr>
<td>Experience</td>
<td>.03</td>
</tr>
<tr>
<td>College Graduates</td>
<td>.26*</td>
</tr>
</tbody>
</table>

*Significant at the .05 level.
even here, the relationships are quite small. Apparently, other characteristics and factors exert a greater influence on planning performance and practices.

**Company characteristics and business success.**

Table 21 provides the data for determining the relationships between company characteristics and business success criteria. The findings suggest a lack of connection between these two sets of variables.
<table>
<thead>
<tr>
<th>Company Characteristics</th>
<th>Business Success Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Planning Benefits</td>
</tr>
<tr>
<td>Age</td>
<td>.13</td>
</tr>
<tr>
<td>Number of Employees</td>
<td>.10</td>
</tr>
<tr>
<td>Annual Sales</td>
<td>.04</td>
</tr>
<tr>
<td>Experience</td>
<td>.11</td>
</tr>
<tr>
<td>College Graduates</td>
<td>.05</td>
</tr>
</tbody>
</table>
CHAPTER V

SUMMARY AND CONCLUSIONS

Purpose

The problem to which this investigation was addressed is the effect of top-management planning performance in small manufacturing companies on the efficient conduct of business operations. Most management scholars share the view that establishing objectives, making forecasts, developing plans, and providing certain qualities in these plans are appropriate management practices because they may contribute to business success. Thus, the more the small manufacturer establishes objectives and goals, develops plans of action, makes forecasts, and adheres to the quality of a good plan, the more he could be said to be successful. Although he might face difficulties in his planning efforts, these should not affect his success because these difficulties are within his area of control.
In order to achieve the objectives of the study, it was hypothesized (1) that the perceived benefits derived through planning would correlate positively with top-management planning behavior. It was also hypothesized that (2) top-management satisfaction with the profit and sales growth made by the company would also correlate positively with planning performance. It was also hypothesized (3) that the difficulties and limitations faced in the performance of planning would correlate negatively with the benefits derived from planning, management satisfaction with profits, and management satisfaction with the growth in sales. Finally, from hypotheses 1 and 2, it was hypothesized (4) that the benefits derived through planning would correlate positively with management satisfaction with profit and sales growth.

A supplementary objective of the study was to determine, within the scope of the data obtained, what might tend to explain the variations in management-planning performance
and the benefits and satisfactions with profits and sales growth. This was to be accomplished by, first, analyzing the interrelationships among the planning scales themselves, and, then, comparing both the planning scales, the perceived benefits derived, and the satisfaction with profits and sales growth with company characteristics. Company characteristics considered included: age of the company, its size as measured in terms of number of employees and annual sales volume, experience of the managers, and number of college graduates who are managers.

A review of previous research pertinent to the problem indicated very little research conducted to determine the nature, extent, and significance of planning among small manufacturing companies. However, several research studies about planning in business disclosed a relationship between planning and company growth and acquisitions, new product lines, product diversification, organizational decentralization, and company mergers.
Methodology

The design of the present study called for developing a Likert-type questionnaire. A large list of items was compiled by reviewing the literature. From suggestions received from professors, students of an introductory business course, and field testing, revisions were made in instruction and format of the questionnaire. The final questionnaire was composed of items measuring the intensity of establishing objectives, making forecasts, developing plans, quality of plans, benefits derived from planning, difficulties faced in planning performance, and satisfaction with profits and sales growth. Scores for these variables were obtained by totaling the subject's responses to a set of items in these measures. Information about the characteristics of the company was also obtained through the questionnaire.

The questionnaire was sent to the presidents
of two hundred and twenty-one manufacturing companies in Ohio. Participants were selected from the 1965 Directory of Ohio Manufacturers. One hundred and eighteen were returned and of these ninety-four were sufficiently complete to be used in the study.

Findings

The test of the first hypothesis led to its verification. Significant positive correlations were found between the perceived benefits derived from planning and management behavior in establishing objectives, developing plans, and adhering to the qualities of a good plan at the .01 level of significance and between the perceived benefits of planning and making forecasts at the .05 significance level. This finding was reinforced by calculating multiple correlation coefficients. It was found that 44 per cent of the variation in the benefits scores were accounted for by the variations in establishing objectives, making forecasts, developing plans, and adhering to the characteristics of a good plan.
Neither the second, third, or fourth hypotheses were verified. There was no support to the hypothesis that the businessman who establishes objectives, makes forecasts, develops plans, and adheres to the qualities of a good plan tends to be more satisfied with the profits and sales growth made by his company during the last five years. In addition, there was no indication that the businessman who faces more difficulties in planning performance tends to be less satisfied with the profits and sales growth or to receive the perceived benefits of planning less. Finally, no support was provided to the hypothesis that the businessman who receives the planning benefits tends to be more satisfied with his company profits and sales growth performance. It seems clear, thus, that hypotheses 2, 3, and 4 should be rejected.

But, while most of the hypotheses were not proved, some interesting and meaningful intercorrelations were found. It was found that the businessman who is satisfied with his company
profit performance tends also to be satisfied with his company sales growth. High positive correlations were also found among the planning scales themselves, i.e., establishing objectives, making forecasts, developing plans, and adhering to the characteristics of a good plan.

As to the relationships between certain company characteristics and planning, it was found only that the number of college graduates who are in management positions tends to be an important factor in planning performance. No connection was found between company characteristics and either the benefits derived from planning or the satisfactions with the profits and growth in sales.

A limitation

A limitation is encountered in the conduct of this study and should be singled out. It is related to business success criteria.

This study does not claim to indicate that planning benefits, satisfaction with profits,
and satisfaction with sales growth are related to actual magnitude of profits and sales growth. It would have been desirable to have obtained objective criteria of success. Lacking these, the study is concerned with statements of planning benefits and expressions of satisfaction with company profit and sales growth.

Conclusions

On the basis of the findings of this study, it may be concluded that:

1. Top-management planning is related to perceived benefits to the company.

2. Planning and its benefits do not tend to increase management satisfaction with profits and sales growth.

3. Profit and growth satisfaction is probably related to expectation in relation to a certain level of achievement.

It is doubtful that satisfaction is an absolute achievement index. The criteria of success for management planning may be efficiency, productivity, and profitability indexes. Conceivably, further
research might uncover the relationships between management planning and such success criteria.

4. Planning difficulties and limitations are not related to perceived planning benefits, satisfaction with profits, or satisfaction with sales growth.

5. Top-management planning is not unidimensional.

There are many types of plans and the process of planning is certainly a complex one, in all likelihood, not to be cited by oversimplified description. It is noted, however, that in this study planning was conceptualized as a predetermination of courses of action for the firm as a whole and its principal areas and involves objectives and forecasts. Planning may be looked at also in terms of policies, procedures, and programs, or in terms of specific and detailed analyses of specific areas of business efforts. Further research might uncover these classes of plans and the degree of sophistication the small manufacturer uses in these plans.
This study was limited to small manufacturers and certain characteristics. Other characteristics, such as leadership personality, type of products handled, competitive situations, type of industry, geographical coverage of the market, and degree of decentralization, to mention a few, may very well influence the variables under study. Future research in this area should be conducted to uncover the effects of these factors on planning.
APPENDIX A

EXPLANATORY LETTER AND QUESTIONNAIRE
Dear .........................

As a part of a doctoral dissertation at Ohio State University I am investigating the nature and extent of planning among Ohio manufacturing companies ranging in size from 100 to 500 employees. To complete the study, I need your beliefs. You or some other knowledgeable person in your firm are the only possible sources of information for this study.

This is not an appraisal of companies, but is simply an attempt to find out what company practices and beliefs really are in the area of planning. No names of individuals or companies will be mentioned in the study. Identity of data will be destroyed. I have tried to keep the questionnaire as specific as possible to make it easier for you to answer.

I shall truly appreciate your completion and return of the questionnaire.

Sincerely yours,

Adnan Najjar  
Department of Business Organization  
The Ohio State University  
Columbus 10, Ohio  43210

Approved by:

Charles B. Hicks  
Professor of Business Organization
In this section you are asked to judge the extent to which certain planning practices actually describe your company planning practices with respect to: establishing objectives or goals in specific business areas, making specific forecasts, performing planning in specific business areas, and considering specific elements in establishing business plans. You are asked to draw a circle around one of the letters (A B C D E) to show the extent to which these practices are performed in your company.

A = Always  
B = Often  
C = Undecided  
D = Seldom  
E = Never

A) Indicate by drawing a circle around the letter (A B C D or E) the extent to which your company establishes objectives or goals in:

1. Sales .......................................................... A B C D E
2. Expenses (Costs) ............................................... A B C D E
3. Advertising and Sales Promotion ............................ A B C D E
4. Production ...................................................... A B C D E
5. Raw Materials (Purchases) .................................... A B C D E
6. Finance ........................................................... A B C D E
7. Research and Development ................................... A B C D E
8. Personnel (Man-power) ....................................... A B C D E
9. The Firm as a Whole ........................................... A B C D E

B) Indicate by drawing a circle around the letter (A B C D or E) the extent to which your company makes the following forecasts:

1. Sales .......................................................... A B C D E
2. Technological Progress ...................................... A B C D E
3. Population Trends ............................................ A B C D E
4. Gross National Product Changes ............................ A B C D E
5. Industry Trends .............................................. A B C D E
6. Prices ........................................................... A B C D E
7. Costs ............................................................ A B C D E
8. Profits .......................................................... A B C D E
9. Cash ............................................................. A B C D E
10. Government Expenditures .................................. A B C D E
C) Indicate by drawing a circle around the letter (A B C D or E) the extent to which your company performs planning in:

1. Sales ................................................................. A B C D E
2. Expenses (Costs) ......................................................... A B C D E
3. Advertising and Sales Promotion ..................................... A B C D E
4. Production ................................................................. A B C D E
5. Raw Materials (Purchases) ............................................. A B C D E
6. Finance ................................................................. A B C D E
7. Research and Development ............................................. A B C D E
8. Personnel (Man-power) ................................................. A B C D E
9. The Firm as a Whole ........................................................ A B C D E

D) Indicate by drawing a circle around the letter (A B C D or E) the extent to which each of the following items describes your planning process or the characteristics of your business plans:

1. Objectives or goals for the company as a whole are kept in mind before making plans ........................................ A B C D E
2. Specific objectives for the principal functions of the business are determined ......................................................... A B C D E
3. Customer desires and wants are considered in the plans ....... A B C D E
4. Profit is considered in the plans ........................................ A B C D E
5. Plans depend on the forecasts made ...................................... A B C D E
6. The forecasts made are reasonably accurate ......................... A B C D E
7. In making plans certain courses of action are chosen and others are ruled out ......................................................... A B C D E
8. Top management supports the development of plans ................ A B C D E
9. Managers participate in developing plans .............................. A B C D E
10. Plans in the various business areas are coordinated and harmonized ................................................................. A B C D E
11. Plans are available to all those responsible for implementing them ................................................................. A B C D E
12. Plans are established several years before action is undertaken ................................................................. A B C D E
13. Plans are established several months or less than a year before action is undertaken ............................................. A B C D E
14. Plans for less than a year contribute to plans for more than a year ................................................................. A B C D E
15. Plans are tested before they are put into effect ........................................ A B C D E
16. Control is provided to make certain that plans are carried out ........................................ A B C D E
17. Plans are attainable. They are within the reach of the company ........................................ A B C D E
18. Plans are flexible and are changed as the situation warrants ........................................ A B C D E
19. Plans are clearly understood by those responsible for their attainment ........................................ A B C D E
20. Plans are acceptable by those responsible for their attainment ........................................ A B C D E
21. Plans are kept in written form ........................................ A B C D E

Section II

In this section are certain results that may be obtained through planning performance. You are asked to draw a circle around the letter (A B C D or E) which describes how useful planning is for the attainment of each of these results in your company.

A = Very Useful
B = Useful
C = Undecided
D = Not Very Useful
E = Not At All Useful

1. Company strengths are made use of and weaknesses are corrected ........................................ A B C D E
2. Company crises situations and crises decisions are avoided ........................................ A B C D E
3. The company is enabled to remain competitive with other firms ........................................ A B C D E
4. The company is helped in recognizing and defining the problem in a way that a solution can be found ........................................ A B C D E
5. The company is enabled to anticipate customer needs ........................................ A B C D E
6. The company is enabled to be efficient ........................................ A B C D E
7. Company methods of doing work are improved and costs are reduced ........................................ A B C D E
8. Company pressures are avoided ........................................ A B C D E
9. Company oversights and mistakes are prevented ........................................ A B C D E
10. The company is enabled to establish a basis for control ........................................ A B C D E
11. The company is enabled to motivate managers ........................................ A B C D E
12. Company managers are kept alert to the objectives of the firm ........................................ A B C D E


Section III

In this section are certain limitations that may be encountered in performing planning. You are asked to draw a circle around the letter (A B C D or E) which describes the degree you believe each of these limitations are encountered in your company.

A = A Serious Limitation
B = A Limitation
C = Undecided
D = A Minor Limitation
E = Not A Limitation

1. Government control ................................................................. A B C D E
2. Business cycle influences ..................................................... A B C D E
3. Lack of accurate data ............................................................... A B C D E
4. Inadequate forecasting techniques ........................................... A B C D E
5. Personnel limitation ............................................................... A B C D E
6. Executives have more regard for the present than for the future ............................................................. A B C D E
7. Executives are preoccupied with day-to-day operations .......... A B C D E
8. Lack of enthusiasm from managers .......................................... A B C D E
9. Lack of cooperation among managers ...................................... A B C D E

Section IV

The information sought in this section is for classification purposes and will be held in strict confidence.

1. When was the company founded? ________________.
2. Size of company: Total number of employees ________, annual sales $ ________
3. Average number of years of experience of the managers in the company is ________________.
4. The number of college graduates who are in managerial positions is ________.
5. To what extent are you satisfied with the profit made by your company during the last five years? (Check one)
   _____ a. Extremely satisfied
   _____ b. Satisfied
   _____ c. Undecided
   _____ d. Dissatisfied
   _____ e. Extremely dissatisfied
6. To what extent are you satisfied with the growth in sales made by your company during the last five years? (Check one)
   a. Extremely satisfied
   b. Satisfied
   c. Undecided
   d. Dissatisfied
   e. Extremely dissatisfied

7. If you wish a copy of the results of this study, please check this space

   ____________________________________________________________
   Your cooperation is greatly appreciated, thank you.

   __________________________ Code number for identification
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