

MOTIVATION: A COMPREHENSIVE REVIEW
OF THE MOTIVATION-HYGIENE AND
NEED-HIERARCHY STUDIES

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PREFACE

This research paper is concerned with the results of two major streams of empirical studies investigating job motivation in different organizations, and attempts to summarize what has been published to date. Porter's conventional, need-hierarchy motivational scheme is examined, and Herzberg's motivation-hygiene dichotomy is reviewed. Then the most significant findings of other researchers investigating the concepts are enumerated in chronological order, and a conclusion is presented.

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CHAPTER I

INTRODUCTION

All organizations are structured, in that they have positions and parts which are systematically related to other positions and parts. Since structures vary, it is important to determine if the attitude and behavior of organization members are related to these variances.

Organizations have been the focus of research and interest in sociology since the time of Weber's initial writings on bureaucracy in the 1920's, and in industrial psychology since the time of the Hawthorne studies in the early 1930's. The major development in this area since the early 1960's has been called "modern organization theory." The earlier writings which discussed chain of command, specialization of function, span of control, and so forth were known as the "classical organization theory" [1].

Motivation is a generic term which implies three things: need, the object or goal to satisfy that need, and the behavior required to achieve the goal [2].

Prior to the early 1960's, a few writers did recognize that motives like power, prestige, adventure, need for accomplishment, security, status, and professional excellence did underlie the work behavior of employees. Studies prior to 1959 did little more than give a descriptive analysis of the individual role and identify the needs and drives assumed to be associated with the role.

After a long period of relative neglect, there has been much effort directed at understanding the motivation of managers. Prior to 1959 one can find little systematic treatment of managerial motivation, but since then more systematic and better-designed studies have been investigating the conditions associated with high levels of managerial effort and performance. The organizational processes and structures which generate the satisfactions and performances are of important interest to organization theorists, since this interest serves as a linkage between organization theory and psychology.

Previous research, such as that produced by Weber and Hawthorne, on satisfaction tended to emphasize the motivational variances between managers and nonmanagers. They did not report on the notion that the organizational features of managerial roles can lead to significant variations in individual satisfactions.

Since employee motivation has received more attention, there have been only a few basic streams of thought. Two major ones are the focus of this study. They are (1) the need-hierarchy concept as a base for empirical study, and (2) the motivation-hygiene concept as a framework for both supporting and conflicting research.

Maslow's theory of human motivation classifies basic human needs into physiological, safety, belongingness and love, esteem, and self-actualization. This concept of a hierarchy of needs underlies the studies on motivation.

Porter was one of the first to investigate how individuals perceive the psychological characteristics of their jobs. His interest was with the relationships between organization variables and the employees' perceptions of needs and need satisfaction. His need

categories included security, social, esteem, autonomy, and self-realization.

Replication of Porter's studies has generally confirmed his findings, especially the notion that job level is a major factor determining workers' perceptions of needs and need satisfaction.

In 1959, Herzberg, Mausner and Snyderman reported research findings that suggested that man has two sets of needs: his need as an animal to avoid pain, and his need as a human to grow psychologically.

Replications of the two-factor theory using the same recall method used by the original study have generally supported the theory. However, other follow-up studies that have used different methods have yielded conflicting results and provided evidence regarding the limited generality of the theory.

Some Early Research

Prior to 1959, only a few writings had presented any notions on the motivation of workers. Houser [3], in 1938, reported the following 10 elements as being important to business executives:

1. Knowing whether their work is improving or not.
2. Having the opportunity for fair treatment when bringing to their superior things they do not like about their jobs.
3. Having a fair opportunity to offer suggestions about their job.
4. Not receiving conflicting orders from their superiors.
5. Receiving adequate authority to get their subordinates to do what they want them to do.

6. Assurance that promotions will go to the best qualified man in the organization.
7. Being given adequate information about plans and policies that influence their work.
8. Not having their work interfered with by a superior officer in the organization.
9. Assurance of pay increases when deserved.
10. Getting the same pay as that for other positions in the organization of equal responsibility and importance.

In 1945, Gordon [4] stated that motives like power, prestige, adventure, need for accomplishment, security, status, and professional excellence were recognized to underlie work behaviors. Henry [5] administered the Thematic Aptitude Test to 300 managers in 1948 in a study of executive personality and job success. The results showed that managers were characterized by a strong desire for achievement. In a 1953 study of the satisfactions derived from white-collar jobs, Morse [6] found supervisors more satisfied than rank-and-file employees in the areas of security, fringe benefits, fairness of treatment, and working conditions.

In 1954, Mullen [7] reported that supervisors have a great need for information regarding their status and progress on the job, for a role in policy formation, and for a chance to present their ideas for consideration. Herzberg, Mausner, Peterson, and Capwell [8] in 1957, as well as Benge [9] in 1959 reported that middle management has poor morale because they have to carry out decisions for which they have no responsibility and are held responsible for subordinates over whom they have no authority.

Few pre-1959 studies did more than merely give a descriptive analysis of the managerial role. The early literature on managerial motivation which was covered, merely identified the "needs" or "drives" associated with the managerial role or success in that role.

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CHAPTER II

NEED-HIERARCHY STUDIES

Porter Experiment

The need-hierarchy concept was the basis of Porter's research on job attitudes in management. Between 1961 and 1966, Porter by himself and in conjunction with six other researchers, conducted 13 studies in this area. He expressed the purpose of his research as an attempt to investigate how individuals perceive the psychological characteristics of their jobs [1]. He was concerned with the relationships between several organizational variables, including job level, organizational size, and role-set diversity, and employees' perceptions of needs and need satisfaction. Need categories used by Porter include security, social, esteem, autonomy, and self-actualization.

Measurement of the Dependent Variables

Data on the dependent variables was collected through a questionnaire designed to measure five need categories--security, social, esteem, autonomy, and self-actualization.

Table I shows the items of the need categories which were tested.

Subjects were asked to give the following three ratings on a seven-point scale for each need item: (1) How important is this item to me? (2) How much is there now in your management position? (3) How much should there be in your management position? The first

TABLE I
NEED ITEMS AND CATEGORIES

Need Category	Need Items
Security	1. The feeling of security in my management position.
Social	1. The opportunity in my management position to give help to others.
	2. The opportunity to develop close friendships in my management position.
Esteem	1. The feeling of self-esteem a person gets from being in my management position.
	2. The prestige of my management position inside the company (that is, the regard received from others in the company).
	3. The prestige of my management position outside the company (that is, the regard received from others not in the company).
Autonomy	1. The authority connected with my management position.
	2. The opportunity for independent thought and action in my management position.
	3. The opportunity in my management position for participation in the setting of goals.
	4. The opportunity in my management position for participation in the determination of methods and procedures.
Self-actualization	1. The opportunity for personal growth and development in my management position.
	2. The feeling of self-fulfillment a person gets from being in my management position (that is, the feeling of being able to use one's unique capabilities and realize one's own potentialities).
	3. The feeling of worthwhile accomplishment in my management position.

rating was designed to measure need importance, while the second rating measured need fulfillment. Need fulfillment deficiency was defined as the difference between the subjects' responses to the second and third scales.

Subjects indicated their perceived chance of attaining the level of need fulfillment for each item they thought should exist in their present jobs. Subjects also assessed their perceived possibility of need fulfillment on a scale ranging with 10 percent increments from 10 to 100 percent. This measure was used because perceived instrumentality is an important factor when explaining individual differences in motivation [2].

Measurement of the Independent Variables

In measuring the independent variables the managerial level was classified into three categories: top, middle, and lower middle. Presidents and vice-presidents were assigned to the top management category. According to the ratio of the number of supervisory levels above them to the total number of supervisory levels, the remaining managers were placed in the other two categories with managers having a ratio greater than 0.6 being classified as lower-middle managers.

Next, company size was measured by the total number of management and nonmanagement employees in the company. The three sizes of categories used were: large, 5000 employees and over; medium, 500 to 4999 employees; and small, under 500 employees. Role-set was defined as the number of work relationships that the manager must maintain by virtue of holding a formal position in an organization [3]. Role-set diversity was measured by presenting the manager with a list of 16

potential members of a role-set and asking him to identify the number of roles with which he maintained work relationships. The more relationships he reported, the more his role-set was considered diversified. Those relationships were categorized as follows: low diversity, 5 or less roles; medium diversity, 5 to 8 roles; and high diversity, 9 or more roles.

Effect of Job Level

For a sample of 64 first-level supervisors and 75 middle managers, Porter [4] found that job level appeared to influence significantly the extent to which psychological needs were fulfilled. Higher-level managers tended to perceive more need fulfillment than the lower-level managers. The results showed:

1. Higher-level managers, presidents and vice-presidents, perceived more need-fulfillment or less need-fulfillment deficiencies than those on lower levels. This held true even when age was held constant.
2. Higher-level managers got more fulfillment of the higher-order needs (autonomy and self-actualization), lower-level managers got more fulfillment of the lower-level needs (security and social), while upper-middle managers arrayed themselves between the two extremes. They perceived that they received roughly equivalent amounts of satisfaction in all five need areas.
3. Higher-level managers tended to attach more importance to autonomy and self-actualization needs than the lower-level managers.

Based on these findings it seems the vertical location of management positions is an important factor in determining the extent to which managers feel that they can satisfy particular psychological needs. This suggests that one has to consider the type of need as well as the manager's level to get a more thorough understanding of motivation.

Effect of Role-Set Diversity

The hypotheses regarding the relationship between role-set diversity and managerial attitudes stated that managers having more diversified role-sets would perceive less need fulfillment deficiency, more need fulfillment, and greater possibility for need fulfillment than managers with less diversified role-sets. It was also found that managers with less diversified role-sets tend to attach more importance to security, social, and esteem needs than managers having more diversified role-sets. Assuming that role diversity does not generate role conflict, the hypothesis in role theory is that the more diversified the role-set, the greater the variety and challenge associated with the role.

Role-set diversity was found to relate negatively to need fulfillment deficiency. That is, managers with highly diversified role-sets perceive smaller need fulfillment deficiencies than managers with less diversified role-sets. The relationship between role-diversity and fulfillment deficiency appears to be most significant in the higher-level need areas of autonomy and self-actualization. Highly diversified role-sets produce significantly more need fulfillment.

Managers with highly diversified role-sets were found to perceive greater possibilities for need fulfillment than managers with less diversified role-sets. The main differences among the three types of role-sets are found in three items in the autonomy need area: the authority connected with the subject's management position, the opportunity for participation in the setting of goals, and the opportunity for participation in determining the methods and procedures. There was a significant difference in one item in the self-actualization needs--the feeling of worthwhile accomplishment--as well as one in the esteem need area--the prestige of the subject's management position outside the company. In each of these instances, the more diversified role-sets produced greater perceived possibilities of need fulfillment. On the other hand, the managers with less diversified role-sets perceived higher possibilities of fulfillment of their security need.

The findings indicating managers having greater diversified role-sets perceive less need fulfillment deficiency, more need fulfillment, and a higher possibility for need fulfillment are consistent with the research hypotheses. This would support the proposition that a highly diversified role-set provides the executive with varied sources of stimulation.

There is support for the hypothesis that higher diversity is more tension-producing in large organizations than in smaller ones.

Also found in the study was that the greater the diversification of a role set, the higher the possibility of intra-role conflicts, due to each class of role senders developing expectations that are more attuned to its own organizational goals, norms, and values than to the total requirements of the officeholder's role.

From the results we can assume that the greater the diversity of organizational positions occupied by the individual's daily associates, the greater the likelihood that his associates will hold conflicting goals, values, and role expectations.

Further Need-Hierarchy Research

Porter's approach to the study of perceptions of needs and need satisfaction has been adopted by other researchers who have attempted to explore the same problem but in diverse organizational settings.

(H. Rosen and C. G. Weaver, 1960)

Rosen and Weaver [5] investigated the question of whether or not motivational commonality exists among various levels of management with regard to what managers want from their jobs, and the importance that they attach to various job conditions. A sample of 155 individuals representing the total managerial force of a plant manufacturing firm implements responded to a highly structured questionnaire dealing with four major areas: relations with superiors, company policies and practices, relations with peers, and opportunity for self-expression. Respondents were classified into four levels: top managers, middle managers, staff specialists, and first-line supervisors. The data indicated that managers in the four different levels assessed the importance of job conditions in much the same way. Of 144 possible intergroup differences, only four reached the 0.01 level of significance, and 13 differences reached or exceeded the 0.05 level. Rosen and Weaver interpreted this finding to indicate that managers, regardless of their level in the hierarchy, are oriented toward working conditions that facilitate the effective discharge of their

responsibilities. Therefore, they thought it proper to talk about a "managerial class" having common motivations with regard to what they want from their work so long as they are evaluated in terms of job rather than organizational effectiveness.

(H. Rosen, 1961)

Rosen [6] reported on how the various managerial echelons described their job environments with regard to work conditions they considered important. The original Rosen and Weaver sample was used in this study. Respondents were asked to use seven response categories to indicate their perceptions regarding the existence of 24 desirable working conditions in their job environments. The basic finding of this study was that the higher one goes in the management hierarchy, the greater are the rewards of the environment.

(L. W. Porter, 1962)

Porter [7] did a follow-up study which investigated the differences in perceived deficiencies in need fulfillment at all levels of management. His findings show that need fulfillment deficiencies progressively increased from the top to the bottom of the management hierarchy for the three highest-order need areas--esteem, autonomy, and self-actualization. In the two lowest-order need categories--security and social satisfactions--lower-level managers perceived themselves to be about as satisfied as higher-level managers. These findings were supported with regularity in each of the four age groups--20-34, 35-40, 45-54, 55+, suggesting that the trends probably are not merely a function of higher-level managers' age.

A major implication of this study is that the vertical location

of management positions is an important factor in determining the extent to which managers feel that they can satisfy particular psychological needs, especially the three higher-order needs of a Maslow-type system of need hierarchies. Since a differential opportunity within management does exist to satisfy the three higher-order needs, individuals in top policy-making positions of organizations may find it necessary to concern themselves with the satisfactions of their lower-level managers as well as the satisfactions of their blue-collar workers.

The increasing dissatisfaction at lower levels of management represents the increasing difference between what is expected and what is obtained. To change this situation, either lower-level managers would have to change their expectations, Porter suggests or upper-level managers would have to change the chances for satisfaction in lower management, especially in the highest-order need areas.

Another implication from the Porter study is that the self-actualization, autonomy, and esteem areas seem to be the most crucial areas of need fulfillment deficiencies at all levels of management. These three areas have always been mentioned as the ones relatively unsatisfied at the blue-collar level, but it can be concluded from this study that many managers even at high-level management positions are not satisfied with their opportunities to obtain the amount of autonomy, esteem, and especially self-actualization they think they should be getting from their jobs.

(F. T. Paine, S. J. Carroll, and B. A. Leete, 1966)

Paine, Carroll, and Leete [8] investigated need satisfactions among managers in a government agency and compared them with private

industry managers at the same level. These researchers administered Porter's 1961 questionnaire to a total of 173 managers of a new government agency. Data for private industry managers were taken from Porter (1962) representing need satisfactions of 659 upper-middle managers. It was found that there was greater satisfaction among the public managers engaged in field work than among those in office work. But, government managers were less satisfied across all need items than private industry managers. This latter finding should not be accepted at face value, since the researchers pointed to the insecure conditions existing in the government agency at the time the study was conducted which may have affected the respondents' attitudes.

(E. C. Edel, 1966)

Still dealing with managers in government, Edel [9] used Porter's questionnaire to measure the perceptions of 58 first-line supervisors and 63 middle-line managers. His findings are in general agreement with Porter's conclusions regarding the effect of job level on perceived need fulfillment. Edel found that first-line supervisory positions were likely to produce more deficiencies in need fulfillment than middle-management positions. He termed this a differential opportunity within management for need satisfaction.

(E. Miller, 1966)

Miller [10] explored the problem of job satisfaction among national union officials. One hundred seventy-one respondents completed a Porter-type questionnaire. The study revealed that the variable of level of the position within the national union hierarchy had a definite relation to the perceived satisfaction of most of the

need items. Regardless of organizational structure, lower-level union officers were more dissatisfied than higher-level officers.

(L. W. Porter and V. F. Mitchell, 1967)

Porter and Mitchell [11] compared need satisfaction in military and business hierarchies. Respondents were 703 commissioned officers and 594 noncommissioned personnel in an overseas Air Force Command who completed the same questionnaire used in all of Porter's studies but slightly modified for application to military respondents. Brigadier generals and colonels were equated with business vice-presidents, lieutenant colonels and majors with upper-middle managers, and captains and lieutenants with lower-middle managers. Results showed that the military officers were less fulfilled and less satisfied than their civilian counterparts. They operationally defined fulfillment as the respondent's answer to, "How much is there now?" Satisfaction was defined as the difference between fulfillment and the response to the question, "How much should there be?"

As in the case of business managers, fulfillment and satisfaction increased in relation to military rank. Finally, it was found that the commissioned and noncommissioned officers represented two sets of hierarchical relationships as far as perceptions of fulfillment were concerned. Higher noncommissioned officers reported more fulfillment but less satisfaction than lower-ranking commissioned officers.

(A. W. Clark and S. McCabe, 1972)

Clark and McCabe [12] compared the motivation and satisfaction of Australian managers with those of managers in other countries. They used the same questionnaire as the one decided on by Haire, Ghiselli,

and Porter (1966), which was derived from Maslow's need-hierarchy system, to investigate the needs and satisfactions of 3,600 managers in 14 countries.

In the original study the order of importance given by all managers to the five needs runs from self-actualization as most important, through autonomy, security and social, to esteem as least important. This order differs from that proposed by Maslow, in that the order of esteem, social and security is reversed. Also, the higher-level needs for self-actualization and autonomy are seen as the most important needs and are ranked one and two, whereas theoretically they should be ranked four and five. The ordering is consistent and holds completely for six countries while another six countries vary only slightly.

Bringing together the findings that bear on Maslow's hierarchy, the results on need satisfaction provide some support for the theory. While the observed order for lower-level needs was not in line with the model, the order for the higher-level needs of self-actualization and autonomy was consistent with it. All managers agreed that the self-actualization and autonomy were the least well-satisfied needs.

(R. A. Harvey and R. D. Smith, 1972)

The study by Harvey and Smith [13] concerned managers working in department stores and their ability to satisfy all levels of basic needs through the work environment. The 143 managers from four large department stores responded to the questionnaire in order to obtain the data to measure the degree of satisfaction of each of the five levels of needs defined by Maslow.

Each of the respondent's scores is significantly above the satisfaction standard, so the major hypothesis that managers who are

in their first three years of retail department store management are able to satisfy their five basic Maslow-type needs through their employment, is accepted.

The results lend support to Porter's theory of human needs. The study revealed that the physiological needs are satisfied better than security needs which also supports the need-hierarchy theory. However, overall results present some evidence that would seem to refute Porter's theory. The managers are able to satisfy their social and esteem needs about the same, whereas Maslow says the social needs are usually satisfied better than esteem needs. Also, the satisfaction of social and esteem needs is not significantly different from the satisfaction of either physiological or security needs, while the need-hierarchy theory maintains that both physiological and security needs are usually satisfied better than social and esteem needs.

(D. B. Simpson and R. B. Peterson, 1972)

Because of conceptual difficulties in dealing with such abstract qualities as "degrees" of need satisfactions and the rank-ordering of perceptions, Simpson and Peterson [14] adopted an open-systems type model utilizing nine characteristics common to all systems. Their investigation was conducted as a field study on 164 craft and industrial union officials from four Pacific coast states.

The results of the need satisfaction variables showed that social and self-actualization needs were the most satisfied need category for all respondents with esteem needs the least satisfied. The Porter need hierarchy would not predict this finding. One would expect that esteem needs would be satisfied prior to achieving self-actualization due to its prepotency. Possibly due to the economic downturn and

resulting high unemployment at the time of the study, the data showed that security was the strongest need-fulfillment deficiency.

It was found that self-actualization was rated as most important by the total sample. According to the prepotency of need argument, one would expect that a lower-order need would have been chosen with respect to the findings on need-fulfillment deficiency. Need-fulfillment deficiencies for security, autonomy, and self-actualization needs were found to be greater for lower-level officer echelons than for the higher-level leaders. This finding does not tend to support or refute the need-hierarchy theory. On the other hand, with the industrial group, security and social needs showed greater deficiencies in need-fulfillment in the lower-level industrial positions. This finding does support the prepotency idea of lower-order needs as one descends through level of position.

(L. K. Waters and D. Roach, 1973)

Waters and Roach [15] factor analyzed a set of items frequently used to measure Maslow need categories to obtain further information on their structure in relation to the Maslow system. A job attitude questionnaire was administered to 101 male managerial level personnel in one national insurance company. The men ranged in job level from the lowest managerial level to senior executive levels. Included as one section of the questionnaire was the 13-item scale developed by Porter (1961) to measure all but the lowest-order Maslow need categories.

The results showed that in the area of higher order need fulfillment, all of the items in the esteem, autonomy, and self-actualization categories were ranked above the criterion level. For this sample,

feelings of overall job satisfaction were related to satisfaction of higher-order needs. This is consistent with Porter's findings that satisfaction with intrinsic aspects of the work situation are more related to overall job satisfaction than are satisfactions with extrinsic aspects.

In the area of lower order need fulfillment, the three items that ranked above the criterion level were feeling of security, opportunity for close friendships, and feeling of pressure.

The resulting factors obtained in this study were in agreement that items used to represent Porter need categories do not cluster as a priori classified according to the Maslow need hierarchy. It appears that Porter-type items can be used to differentiate higher-order and lower-order need satisfaction, and that overall job satisfaction is primarily a function of satisfaction of higher-order needs.

Summary

Summarizing to this point, studies reviewed adopted the need-hierarchy concept as a base to investigate motivations to work. Porter's research represents one of the two basic approaches to managerial satisfaction found in the literature. His methodology and instrument of study have been used by other researchers looking at employees in different types of organizations. The studies presented in this review generally tend to confirm Porter's original findings. Porter's research design is limited basically by his limited range of organizational variables. Other organizational variables might reasonably be expected to influence perceptions of needs and need satisfaction.

Porter's measures of need fulfillment and need importance fail to reflect an important variable that may influence perceptions, that is, the perceived possibility of need fulfillment. To get a realistic understanding of motivation, it is not sufficient to know how important a need is for individuals or how much they expect a need to exist in their jobs. A knowledge of their expectations of the possibilities in their job environments of getting the amounts of need satisfaction they desire would be helpful. The needs for self-actualization and autonomy may be perceived as the most important, and are therefore the most prepotent needs and the immediate motivators of work behaviors. But unless the employees perceive their work environments as conducive to the fulfillment of such needs, it is probable that such important needs may generate dysfunctional effects leading to frustration and ineffectiveness.

The findings of Porter's studies about the relations between organizational variables like job level and role diversity, on the one hand, and perceptions of needs and need satisfaction, on the other, suggest that employees' perceptions of job factors as sources of satisfaction or dissatisfaction may vary depending upon their positions and certain organizational variables.

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CHAPTER III

MOTIVATION-HYGIENE STUDIES

Herzberg Experiment

The second major area of empirical research on job motivation involves the motivation-hygiene concept introduced by Herzberg, Mausner, and Snyderman [1]. The concept has mainly contributed to the area of employee motivation by generating many supporting and conflicting studies. Since the publication of The Motivation to Work, 1959, many studies have been conducted solely for the purpose of testing the validity of the theory.

According to Herzberg et al. man has two sets of needs: his need as an animal to avoid pain, and his need as a human to grow psychologically. These findings led them to advance a two-factor theory of motivation. Since that time, the theory has caught the attention of both industrial managers and psychologists. Management training and work-motivation programs have been installed on the basis of the two-factor theory. Psychologists have conducted substantial research relevant to the two-factor theory.

Whereas previous theories of motivation were based on causal inferences of the theorists and deduction from their own insights and experience, the two-factor theory of motivation was inferred from a study of need satisfactions and the reported motivational effects of these satisfactions on 200 Pittsburgh engineers and accountants.

The subjects were first requested to recall a time when they had felt exceptionally good about their jobs. The investigators sought by further questioning to determine the reasons for their feelings of satisfaction, and whether their feelings of satisfaction had affected their performance, their personal relationships, and their well-being. Finally, the sequence of events that served to return the workers' attitudes to "normal" was elicited.

In a second set of interviews, the same subjects were asked to describe incidents in which their feelings about their jobs were exceptionally negative--cases in which their negative feelings were related to some event on the job.

The results of this study were formulated in a theory of job attitudes, the motivation-hygiene theory which is also referred to as the two-factor theory. The theory states that:

1. Job satisfaction and job dissatisfaction are not the obverse of each other. Rather they are two separate and parallel continua.
2. The opposite of job satisfaction is not job dissatisfaction; rather it is no job satisfaction. Likewise, the opposite of job dissatisfaction is not job satisfaction; rather it is no job dissatisfaction.
3. Job satisfaction is determined by the feelings that the person has regarding the content of his job. They reflect the individual's active search for psychological growth; therefore they have been termed "motivators." Job content includes task achievement, recognition for achievement, intrinsic interest in job, increased task responsibility,

advancement or occupational growth, and the possibility of occupational growth.

4. Job dissatisfaction is determined by the feelings the individual has regarding the context of his job. When job-context factors are present, they help the employee meet his needs to avoid unpleasant environments, but they do not lead to satisfaction. They have been termed "hygiene" since they serve to prevent dissatisfaction and since they are environmental in nature [2].

According to the theory, the satisfiers are related to the nature of the work itself and the rewards that flow directly from the performance of that work. The most potent of these are those characteristics that foster the individual's needs for self-actualization and self-realization in his work. These work-related or intrinsic factors are achievement, recognition, work itself, responsibility, and advancement.

A sense of performing interesting and important work (work itself), job responsibility, and advancement are the most important factors for a lasting attitude change. Achievement, more so than recognition, was frequently associated with the long-range factors of responsibility and the nature of the work does not necessarily have to come from superiors; it might come from peers, customers, or subordinates. Where recognition is based on achievement, it provides more intense satisfaction.

The dissatisfaction factors are associated with the individual's relationship to the context or environment in which he does his work. The most important of these is company policy and administration that

promotes ineffectiveness or inefficiency within the organization. The second most important is incompetent technical supervision--supervision that lacks knowledge of the job or ability to delegate responsibility and teach. Working conditions, interpersonal relations with supervisors, salary, and lack of recognition and achievement can also cause dissatisfaction.

The second major hypothesis of the two-factor theory of motivation states that the satisfiers are effective in motivating the individual to superior performance and effort, but the dissatisfiers are not. In his most recent book, Work and the Nature of Man, Herzberg [3] uses the following analogy to explain why the satisfier factors or "motivators" affect motivation in the positive direction.

When a child learns to ride a bicycle, he is becoming more competent, increasing the repertory of his behavior, expanding his skills--psychologically growing. In the process of the child's learning to master the bicycle, the parents can love him with all the zeal and compassion of the most devoted mother and father. They can safeguard the child from injury by providing the safest and most hygienic area in which to practice; they can offer all kinds of incentives and rewards; and they can provide the most expert instructors. But the child will never, never learn to ride the bicycle--unless he is given a bicycle! The hygiene factors are not a valid contributor to psychological growth. The substance of the tasks is required to achieve growth goals. Similarly, you cannot love an engineer into creativity, although by this approach you can avoid his dissatisfactions with the way you treat him. Creativity will require a potentially creative task to do.

What Herzberg is saying is that some factors affect job attitudes only in the positive direction. This leads to increased job satisfaction, but the absence of these factors would not necessarily lead to job dissatisfaction. Also, there are a group of factors acting as dissatisfiers which lead to dissatisfaction when absent, but would not lead to job satisfaction when present.

From his results Herzberg had several specific recommendations to make to industry. The first was directed to industrial relations departments, which he felt was already adequately providing hygiene factors. He recommended that industrial relations departments, which are hygiene-oriented, should remain as half of a new department, the other half to be motivation-oriented. He felt that in order for this to be effective, management as a whole must become motivation-oriented, even if the progress is slow. One of his objections was to personnel departments requiring applicants to be overly trained in comparison with actual job requirements. Over-training inevitably leads to lack of job satisfaction and consequent hygiene-seeking, which are bad from the standpoint of mental hygiene and the waste of human resources.

He also recommended the introduction of ambiguity so that decision-making becomes possible, and so that the individual can take a direct interest in his task. All this cannot be accomplished at once, but various aspects can be added as the possibility arises. Periodic review of policy practices should reveal opportune times for further improvement.

Further Motivation-Hygiene Research

(R. L. Kahn, 1961, and V. Vroom and N. R. Maier, 1961)

Kahn [4] felt that the findings were in part the result of relying entirely on the respondent for a description of his job attitudes, the factors which caused them, and the behavioral consequences. In a similar fashion, Vroom and Maier [5] were skeptic of the legitimacy of Herzberg's conclusion. They argued that there was a risk in inferring the actual causes of satisfaction and dissatisfaction from

descriptions of events by individuals since it seems possible that the obtained differences between events may reflect defensive processes at work within the individual.

Supportive Evidence

(L. A. Gruenfeld, 1962)

Gruenfeld [6] had 52 industrial supervisors at three occupational levels rate 18 job characteristics in order of their desirability. The most preferred job characteristics were those concerning personal development, promotion, and personal responsibility (supposedly motivators), and the least preferred job characteristics were those relating to conditions of work (supposedly hygienes). This study supported the two-factor theory; however, it introduced occupational level as a variable influencing managers' perceptions of job factors. Those at higher occupational levels placed more emphasis on the motivators and less emphasis on the hygienes, while the opposite held for those at lower occupational levels.

(R. M. Hamlin and R. S. Nemo, 1962)

Hamlin and Nemo [7] studied schizophrenics, both unimproved and former patients, and used students as a control group. Their method employed a choice-motivator scale on a 20-item forced-choice activity questionnaire. Herzberg's duality concept of mental health is supported by the findings: Positive mental health depends primarily on the development of an orientation toward self-actualization, achievement, responsibility, and goal-directed effort. Former patients obtained higher motivator and lower hygiene scores than the unimproved patients. College students obtained higher motivator and

lower hygiene scores than either of the two schizoid groups.

(M. M. Schwartz, E. Jennessaitis, and H. Stark, 1963)

Schwartz, Jennessaitis, and Stark [8] consider their study an extension of a major portion of The Motivation to Work by Herzberg et al., but more directly concerned with motivational factors, and specifically concerned with motivation of accountants and engineers. The sample was made up of 111 male supervisors employed by 21 public utility companies. The subjects had to recall and write two experiences, one pleasant and the other unpleasant, from his employment tenure. Of the factors mentioned in these critical incidents, achievement, recognition, the work itself, responsibility, and advancement were identified by the authors as appearing most frequently in relation to the job itself. The remaining 11 were considered hygiene or context factors. Context-centered factors became important only when poor or inadequate, but when high, they did not contribute much to satisfaction.

In spite of the differences between this sample and the sample of Herzberg et al., as well as the modified method of gathering data, there was substantial agreement with Herzberg's findings. Probably the most evident difference in findings was that in the study of utility supervisors, interpersonal relationships with subordinates was significant as a motivator. The authors explained this difference as stemming logically from the fact that the utility supervisors most frequently come up "through the ranks" and consequently have a common background and close identity with their subordinates, in contrast to the more professionally conscious non-supervisory technicians of the Herzberg sample.

(F. Friendlander, 1964)

Friendlander [9] investigated the assumed complementary functions of job satisfaction and job dissatisfaction and found these not to be opposite ends of a common set of dimensions, but instead unrelated and not complementary. Respondents, a sample of 80 students in an evening course in industrial or child psychology, rated 18 variables to job satisfaction and dissatisfaction. It was found that intrinsic job characteristics were important to both satisfaction and dissatisfaction, while extrinsic aspects were relatively unimportant.

(F. Friendlander and E. Walton, 1964)

Friendlander and Walton [10] interviewed 82 scientists and engineers. Subjects were asked to indicate the most important factors that kept them with the organization and some of the factors that might cause them to leave their place of work. Reasons given by the subjects for remaining with the present organization were quite different from, and not merely opposite to reasons given for leaving the organization. Work content, positive motivation, was the reason keeping the individual with his organization (interest in work, technical freedom). Work context, negative motivation, was the reason for leaving the organization (pay, promotional opportunities, fringe benefits). These results are supportive of Herzberg's findings.

(H. C. Haywood and V. Dobbs, 1964)

Haywood and Dobbs [11] measured the attitudes of 100 eleventh and twelfth grade students in public high school toward tension-inducing situations by the S-R Inventory of Anxiousness. Motivational patterns were classified by the Hamlin and Nemo choice-motivator scale. It was

found that there was a significant tendency for subjects who were high in motivator orientation to be high in approach motivation. Those high in hygiene orientation were also high in avoidance motivation. This study provides support for Herzberg's theory.

(M. S. Myers, 1964)

Herzberg-type interviews were used by Myers [12] on 282 male scientists, engineers, manufacturing supervisors and technicians, and 52 female hourly assemblers in a study of job characteristics. Content analysis revealed that job characteristics grouped naturally into motivator-hygiene dichotomies. One Herzberg motivator, however, acted like a hygiene, and other Herzberg motivators acted like both motivators and hygienes. Different job levels had different job characteristic configurations, and the female configuration was different from the four male configurations.

(S. A. Saleh, 1964)

Saleh's [13] findings were in general agreement with Herzberg's duality theory, but they also reflected some differences. Saleh found that pre-retirees indicated that hygienes were the major sources of their satisfaction. He found that age, as well as job level and sex, has its effects in changing patterns of job satisfaction.

Saleh used a semistructured interview technique and a 16-item attitude scale to study 85 managerial-level male employees ranging in age from 60 to 65. Looking backward on their careers, the pre-retirees indicated that motivators had been sources of satisfaction and hygienes had been sources of dissatisfaction. Looking at the time left prior to retirement, however, they indicated that hygienes were

the sources of their satisfaction.

Saleh explained that the needs underlying the hygienes become more stringent than the needs underlying the motivators as the respondent passes from middle age into the pre-retirement period. He also postulated that pre-retirees no longer have access to motivators, so they turn to hygiene factors in an effort to obtain at least some satisfaction. The first explanation, he said, is related to Maslow's hierarchy of needs. The need for security and love become more potent than the need to self-actualize as the individual reaches the early sixties.

(R. Centers and D. Bugental, 1966)

In their investigation of 692 managers, clerks, salesmen, skilled and unskilled blue-collar workers, Centers and Bugental [14] found that job motivations were related to occupational level. Motivators were valued over hygienes by white-collar workers, but not so by blue-collar workers. Men and women did not differ in general in their ranking of job attributes, although women placed greater value on good co-workers and a lower value on self-expression than men. Occupation was more important to men than to women. The subjects had been asked to rank the most important attributes of the job in a questionnaire which included three intrinsic and three extrinsic items. Herzberg does not agree that job level or sex have any significant effect on results in studies of job satisfaction.

(M. Eran, 1966)

Out of 456 lower-middle managers, Eran [15] chose as his sample the 89 high and low scorers in self-descriptions and job attitudes for

a comparison of personality and job attitude. He found that the individual's evaluation of himself is primarily determined by his relative standing in his reference group. The two factors best related to job attitudes are the environment, as indicated by the level of management, and personality, as measured by self perception. The higher the level of management a person attains, the greater his need for autonomy and self-actualization. These findings are supportive of Herzberg's two-factor theory.

(G. Halpern, 1966)

Halpern [16], in the introduction to the article reporting his study, explains two often-misunderstood aspects of Herzberg's motivator-hygiene theory:

. . . To claim that the motivator factors, when present, contribute to satisfaction but not to dissatisfaction does not deny the reality of hygiene needs. The motivator-hygiene theory of job satisfaction clearly recognizes that both kinds of factors meet the needs of the employee, but stresses that only the presence of motivators can lead to satisfaction.

It should also be noted that the motivator-hygiene theory does not predict level of satisfaction with any single factor whether it be hygiene or motivator. Although it is only the motivators that lead to overall job satisfaction, there is no assertion that employees cannot be equally satisfied with all aspects of their jobs. The theory simply says that these two factors have very different consequences for overall job satisfaction.

The study itself supports the motivator-hygiene theory. His sample consisted of 93 employed male college graduates who performed ratings of satisfaction with four motivators, four hygienes, and overall job satisfaction on their best-liked job. Halpern found that the subjects were equally well satisfied with both the motivator and hygiene aspects of their jobs, and that the motivators contributed significantly more

to overall satisfaction than did the hygienes.

(M. D. Dunnette, J. P. Campbell, and M. D. Hakel, 1967)

In their study of 133 store executives, 89 sales clerks, 44 secretaries, 129 engineers and research scientists, 49 salesmen, 92 army reserve personnel, and employed adults enrolled in a supervision course, Dunnette, Campbell, and Hakel [17] proceeded to use factor analysis of Q-sorts of two sets of 36 statements, equated on the basis of social desirability, to find highly satisfying and dissatisfying job situations. Three Herzberg motivators and one hygiene acted as both satisfiers and dissatisfiers. Some individuals achieved satisfaction from job content, others from context, and others from combinations of content and context. The same was said for dissatisfaction. All in all, they concluded, the same factors contributed to both satisfaction and dissatisfaction.

(P. Weissenberg and L. W. Gruenfeld, 1968)

Weissenberg and Gruenfeld [18] investigated the relationship of motivator and hygiene variables to job involvement of 96 supervisors of a state civil service department. Job involvement was correlated with each motivator score, the total motivators score, each hygiene, and the total hygienes score. Total motivators and total hygienes were correlated with overall satisfaction.

The authors stated that increased job involvement did appear related to satisfaction with motivator variables. Motivators, not hygienes, correlated significantly with job involvement. Both motivators and hygienes correlated significantly with overall job satisfaction, but motivators accounted for more of the variance in

overall satisfaction. Both findings, they conclude, support the Herzberg theory.

Unsupportive Evidence

(J. R. Block, 1962)

Block's [19] sample in his study of the motivation, satisfaction, and performance on industrial workers consisted of 81 physically disabled male employees of an electronics subcontractor. He used need for achievement, self-acceptance, and job satisfaction as the independent variables and attendance, quality of production, and quantity of production as the dependent variables. He found that (a) industrial performance was positively correlated with need achievement but not correlated with self-acceptance, although relatively highly correlated with these two variables combined, (b) job satisfaction correlated with industrial performance only under some conditions of need achievement and self-acceptance, and (c) scoring of the need achievement test was found to be an important variable.

(R. B. Ewen, 1963)

By means of a 58-item attitude scale and factor analysis, Ewen [20] investigated Herzberg's theory on 1,021 full-time life insurance agents. The subjects were divided into two groups, which Ewen called his experimental sample and his cross-validation sample. Six major factors were isolated, three of which (manager interest in agents, company training policies, and salary) were hygienes, and two (the work itself and prestige) motivators, and one general satisfaction. His results were for the most part at variance with predictions made on the basis of Herzberg's theory as Ewen saw it. His method included

holding factors constant at a neutral level when they were not being tested. Two of the hygiene factors, company training policies and manager interest in agents, acted as motivators in both of the two subgroups. In one group salary, a hygiene, acted as a motivator, and in the other it caused both satisfaction and dissatisfaction. In both groups prestige, a motivator, resulted in satisfaction and dissatisfaction.

Ewen also said that supervision is not necessarily a dissatisfier, since the supervisor may be a source of recognition. Likewise salary is a dissatisfier but may represent achievement and recognition, which are satisfiers. Ewen's recommendations were that Herzberg's theory be tested with a more extensive research design, that further research be done in different occupations and that the Herzberg results not be generalized beyond the situation in which they were obtained.

Ewen criticized the motivation-hygiene theory on the following grounds: (a) the narrow range of jobs studied, (b) the use of only one measure of job attitudes, (c) the absence of any validity and reliability data, and (d) the absence of an overall satisfaction measure.

(F. Friendlander, 1963)

The purpose of Friendlander's [21] study was to identify the underlying sources of job satisfaction, to identify and describe employees for whom each group of job factors is of greatest importance as a source of satisfaction, and to analyze differences in overall satisfaction among the groups. Data were obtained from responses to a questionnaire administered to the engineering, supervisory, and salaried employees of a large Midwestern manufacturing company. Two

hundred of each of the three position-occupation groups were selected at random from the total sample. The age of the members of the total sample was normally distributed from under 25 to over 35, with a mean of 39. The monthly base salary distribution was approximately normal, with a range of under \$500 to over \$950, and a mean of \$738. Seventeen questions measured the importance of various items to the employee's satisfaction, 17 measured actual satisfaction with these items, and five items measured overall satisfaction. Three meaningful factors emerged: (1) Social and Technical Environment; (2) Intrinsic Self-Actualizing Work Aspects; and (3) Recognition through Advancement, which included salary along with advancement, increased responsibility and recognition.

Factor I provided the most satisfaction for older, less well paid, salaried and supervisory employees. Friendlander assumed that this group consists of individuals who have reached a lower level of education and who have made slow progress in the organization. He also surmised that they possess a strong need for the security of good supervision and are unconcerned with promotion, challenge, and the kind of work they are doing.

Factor II was of prime importance to the younger age groups. Again Friendlander made certain surmises about the group--that they are more concerned with meaningful work which utilizes the best of their abilities and in which they might have a feeling of achievement. He postulated that they do not yet have great financial responsibilities so do not have to be concerned with salary and security, but are concerned with gaining training and experience so as to grow.

The individuals in the Factor III group did not differ from

expectations.

The author of the study concluded that the results in part substantiate and in part contradict the two-factor theory of job satisfaction. Herzberg's job items were all represented in the questionnaire utilized in the study, and consequently, Friendlander says, one might expect a general intrinsic factor to emerge as dominant in the analysis of questions dealing only with satisfactions. This study, however, indicated that the underlying structure of job satisfaction is somewhat more complex, since both intrinsic and extrinsic job factors were found as sources of job satisfaction. Friendlander admitted, however, that the mere inclusion of hygiene items in the questionnaire might have fostered such results.

The emergence of Factors I and II seems to give support to Herzberg, although Factor III draws from both hygienes and motivators. Friendlander concluded that there are three distinct, though related, types of satisfactions to be derived from work. The satisfactions he suggested are:

1. The return in the form of monetary rewards and prestige
2. Intrinsic satisfactions or the pleasure in a specific activity and in the accomplishments of specific ends
3. Concomitant satisfactions, such as those derived from working in a particular physical environment or with a particular group

Among the three groups studied, no significant differences were found in overall job satisfaction. The study is particularly important from the standpoint of his findings on the effects of age, tenure, salary level, and occupation on job satisfaction as derived from motivators and hygienes.

(H. Rosen, 1963)

Rosen's [22] study was concerned with the relative merits of pay, promotions, fringe benefits, and nonfinancial incentives as motivators, particularly among professional and scientific personnel. Past research has varied in its conclusions on studies of motivation. One concluded that money is the prime motivator. Others said that intrinsic factors are more important--job challenge, research freedom, and self-actualization. Still others favored a composite of intrinsic factors and money, with salary as a significant variable. Rosen used Herzberg et al. as a starting point, employing a 118-item highly structured job attitude questionnaire and factor analysis to study 105 research and development personnel, which was the entire professional staff of a corporate research center. The 94 respondents who returned usable data were a heterogeneous group with respect to their area of specialty, educational level, and organizational level.

Results showed 14 items were considered vital and that lack of them would be intolerable and would create job-seeking behavior. Five of these were related to salary and promotion, four to job challenge, three to trustworthy supervision, and two to trustworthy organizational management. Fourteen items were of little or no importance and lack of them would at most cause minor irritation and would in no case cause job-seeking behavior. Of the 65 items of moderate importance as motivators, 17 concerned supervision, 14 the work itself, 10 relationships with co-workers, 10 company practices and policies, nine communications, three working conditions, and two economic considerations. Intrinsic job demands thus were the prevalent motivators, though salary based on merit ranked second from the top. Some extrinsic

factors were stressed as motivators. There was a great deal of emphasis, for instance, on human relations skills of supervision. Such hygiene factors as fringe benefits and extra-plant involvements were unproductive as motivators.

One of the more important conclusions made by Rosen was that workers of one cultural background (white-collar workers) associate varied, complex, demanding jobs with job satisfaction. Blue-collar workers, on the other hand, tend to associate these qualities with low job satisfaction. Another observation he made was that professional and scientific personnel want their independence but still want professional and organizational advancement, which he considers a paradox in modern industry.

(M. D. Dunnette, 1965)

Dunnette [23] used a sample of 114 executives, 74 sales clerks, 43 secretaries, 128 engineers and research scientists, 46 salesmen, and 91 army reserve personnel to investigate the factor structures of unusually satisfying and unusually dissatisfying job situations. He found that some Herzberg motivators were related to satisfying job situations, but Herzberg hygienes were not related to dissatisfying job situations. One Herzberg motivator acted like a hygiene factor. There was also a positive relationship between the importance of a factor as both a motivator and a hygiene which is contrary to the negative relationship expected under Herzberg's theory. Thus the same factors were contributors to both satisfaction and dissatisfaction.

(F. Friendlander, 1965)

Friendlander [24] found that white-collar workers derived greatest

satisfaction from the motivators (job-content factors), while blue-collar workers derived greatest satisfaction from the hygienes (job-context factors). This finding, while supporting the concept of intrinsic versus extrinsic job characteristics, reduces the generality of the two-factor theory by emphasizing occupational level as a variable determining an individual's responses to job factors.

(G. G. Gordon, 1965)

Gordon [25] in a study of the relationship of satisfiers and dissatisfiers to productivity, turnover, and morale asked 683 full-time agents of a large national life insurance company to rate their degree of satisfaction and dissatisfaction with 54 items comprising four scales (motivators, hygienes, both, hygienes minus both). Measures of over-all job satisfaction, self-reported production figures, and turnover data were also available. The findings revealed that, contrary to expectation, individuals highly satisfied with hygienes and persons highly dissatisfied with hygienes were not less satisfied than individuals dissatisfied with motivators. A positive relationship was found between satisfaction with motivators and self-reported production, but no relationship was found between hygienes and production. This study offered no support to the theory that specific job factors affect attitudes in only one direction. Support is offered that primarily the motivators bring about superior performance.

(M. R. Malinovsky and J. R. Barry, 1965)

Malinovsky and Barry [26] did a first- and second-order factor analysis of a 40-item work attitude questionnaire consisting of 20 motivator and 20 hygiene items. The sample consisted of 117 male

maintenance men and watchmen at a Southern state university. They decided that the main factors of job satisfaction are not distributed along separate dimensions, but actually interact in a variety of ways. Of the 12 factors extracted by the first-order factor analysis, six were composed of both motivator and hygiene items. They concluded that overall satisfaction is related to both motivators and hygiene factors.

(R. Burke, 1966)

Burke [27] had 187 college students rank 10 job characteristics in order of importance for themselves. The 10 job characteristics were taken from the original Herzberg study and included challenges, ability, high responsibility, importance of the job, opportunities for advancement, and voice in decisions as motivators. Good boss, good physical working conditions, good salary, job security, and liberal fringe benefits were listed as hygienes. The study revealed that within a rank order most individuals were applying essentially the same standard in ranking the 10 job characteristics with a surprising degree of agreement in the male and female preferences. Subjects ranked a significant number of motivators more important than hygienes, indicating the relatively greater importance of motivators over hygienes as contributors to both job satisfaction and job dissatisfaction. This study indicated that the Herzberg motivators and hygienes are neither unidimensional nor independent constructs.

(P. E. Wernimont, 1966)

Wernimont [28] subjected the motivation-hygiene theory to a critical evaluation. By means of a modified form of the forced-choice technique, 50 accountants and 82 engineers ranked intrinsic items

about as equally often as when describing satisfying and dissatisfying job situations. Statements relating to extrinsic factors were endorsed nearly 40 percent of the time on both situations. Wernimont concluded that either extrinsic or intrinsic job factors can cause both satisfied and dissatisfied feelings about the job, and that satisfaction variables are not unidirectional in their efforts.

(R. B. Ewen, P. C. Smith, C. L. Hulin, and E. A. Locke, 1966)

Ewen, Smith, Hulin, and Locke [29] used 793 male employees, all 35 years of age and older, and all varying greatly in job level, age, educational background, experience, and place of employment, as their sample to test Herzberg's two-factor theory of job satisfaction. Four hypotheses were formulated, each of them a confusing combination of predictions of the behavior of intrinsic and extrinsic factors as related to overall job satisfaction.

An example of the hypotheses is as follows: Being satisfied with a satisfier should lead to greater overall job satisfaction than being satisfied with a dissatisfier according to the two-factor theory, while the traditional theory would predict no such differences. And, being dissatisfied with a dissatisfier should contribute to a greater overall dissatisfaction than being dissatisfied with a satisfier. Again the traditional theory would predict no such difference.

Working with three factors (the work itself, promotions, and pay), they concluded that their results supported neither the traditional nor the Herzberg theory. Instead, the results indicated that intrinsic factors are more strongly related to both overall satisfaction and overall dissatisfaction than the extrinsic factor, pay, and suggest the functioning of the extrinsic variable may depend on the level of

satisfaction with the intrinsic variables. They also concluded that the concepts "satisfiers" and "dissatisfiers" do not accurately represent the manner in which job satisfaction variables operate. The authors were very critical of Herzberg's recall method of gathering data, supporting others of the same persuasion who point out that possible drawbacks of the method are selective bias in recall and projection of individual failure onto external sources. The study also employed a forced-choice method as opposed to Herzberg's free choice, their contention being that the free-choice method introduces bias.

(F. Friendlander, 1966)

One of Friendlander's [30] investigations of civil service workers and their responses to a 14-item questionnaire measuring the importance of recreation, education, church, work content, and work context factors (motivators) were important only to medium and high status white-collar workers.

One part of the questionnaire was designed to elicit the importance of various job characteristics to satisfaction and dissatisfaction in relation to age, tenure, and performance. Among white-collar workers, low performers were motivated primarily by hygienes, and to a lesser extent by motivators. There were few significant relationships between self-actualizing motivations and performance. No significant differences were noted between motivator and hygiene factor influence on performance of blue-collar workers. With advancing age and tenure, hygienes increased in importance for high and low performing blue- and white-collar workers. For blue-collar workers, work as a whole declined in importance with advancing age and tenure.

A clear hierarchy of potential motivators emerged from the study.

For high performers they were: intrinsic work, recognition, and social environment. For low performers they were: social environment, intrinsic work, and recognition. Friendlander disagrees that system rewards are more effective for holding members within the organization than for maximizing other organizational behavior. He points out that this study would indicate that system rewards do lead to higher performance than the minimum required to stay in the organization.

(G. B. Graen, 1966)

Graen [31] subjected the same data generated by Ewen et al. to a two-way analysis of variance. Results supported the traditional theory. The satisfiers of promotion and work itself were found to contribute more to overall satisfaction than the dissatisfiers. Contributions to total variance were 18 percent and 2 percent, respectively. Also, Graen [32] developed a questionnaire based upon Herzberg's classification of the "motivators" and "hygiene factors." The questionnaire included 96 items covering the content of the 16 factors proposed by the original study by Herzberg et al. Positive and negative items were developed in order to elicit responses for both positive and negative feelings toward the job. The subjects, who were 153 professional engineers, were asked to rate the importance of each item to their overall job satisfaction or dissatisfaction. The items were scored on the degree of importance to overall feelings toward the job. A factor analysis was performed on the intercorrelations among the items, and of 21 factors accounting for 61 percent of the total variance only 11 included three or more items. Of the 11 factors, only job security and status included all the items which were originally written to measure these factors, and work itself and

achievement included some of the items written to measure them. The remaining seven factors included items based on several different dimensions. Graen concluded that the dimensions proposed by Herzberg et al., when represented as items and rated by respondents rather than outside raters, do not result in homogeneous groupings in the factor-analytic sense.

(D. K. Lahiri and S. Srivastva, 1966)

Lahiri and Srivastva [33] conducted a study to replicate and test the motivator-hygiene theory in a different population and in a different culture. A sample of 93 middle managers were asked to indicate the extent to which 13 job-content factors and 13 job-context factors contribute to the feeling of satisfaction and dissatisfaction in present and imaginary job situations. The same story-telling method used by Herzberg et al. was used in this study. The results confirmed both Herzberg's et al. 1959 study and Friendlander's 1964 findings that job satisfaction and job dissatisfaction are not the obverse of each other. It was found that employees who perceived certain factors of work environment as sources of satisfaction may not perceive the absence or the negative aspect of the same factors as sources of dissatisfaction. Contrary to the two-factor theory, both intrinsic and extrinsic job factors were found to contribute to feelings of job satisfaction and job dissatisfaction. But, the intrinsic factors acted more as satisfiers, and the extrinsic factors acted more as dissatisfiers.

(R. Bloom and J. R. Barry, 1967)

Bloom and Barry [34] administered a 40-item questionnaire to 85

Black blue-collar workers. The results were factor analyzed and compared with a study of 117 White blue-collar workers. Hygiene factors were found to be more important to Blacks, a finding consistent with Herzberg's observation that hygiene needs must be met before motivator needs become operative. The authors, nevertheless, concluded that the two-factor theory is too simple to explain job satisfaction and dissatisfaction among blue-collar Blacks, and that it may become less adequate the farther one departs from the higher-status occupations.

(J. R. Hinrichs and L. A. Mischkind, 1967)

Hinrichs and Mischkind [35] investigated the validity of the Herzberg et al. hypothesis concerning the satisfier-dissatisfier or motivation-hygiene effect on overall job satisfaction using data assessing present satisfaction with a current job situation. The study was designed to test the hypothesis that the motivators would be the primary cause of positive satisfaction in high-satisfaction respondents, as well as the primary cause of negative satisfaction for low-satisfaction respondents. It was hypothesized that hygiene variables would thus be responsible for the lack of total satisfaction for high-satisfaction subjects and for the lack of total dissatisfaction for the low-satisfaction subjects.

The subjects were 613 technicians involved in service work employed by a large national company. Overall job satisfaction and job factors responsible for it were measured by an attitude-survey questionnaire. Respondents were classified into high- and low-satisfaction groups based on their scores on the overall satisfaction measure. Job factors were classified into satisfiers (recognition,

achievement, growth of skills and abilities, advancement, work itself, and autonomy) and dissatisfiers (interpersonal relationships with peers, subordinates, and supervisors, supervision-technical, company policy and administration, working conditions, job security, benefits, status and personal life). The study revealed that motivators are predominantly influencing satisfaction positively for the high-satisfaction group, while for the low-satisfaction group they have equally positive and negative influence. Hygiene factors act mainly negatively for the high-satisfaction group, as reasons for incomplete satisfaction, and predominantly positively for the low-satisfaction group, as reasons for incomplete dissatisfaction. In general, the study does not confirm the Herzberg two-factor theory.

(C. L. Hulin and P. A. Smith, 1967)

Hulin and Smith [36] tested contradictory hypotheses derived from the Herzberg two-factor theory and traditional model of job satisfaction on a sample of 670 office employees, supervisors, and executives. The data indicated that if the presence of a variable results in the job being judged as good, the absence of that same variable results in the job being judged as bad. The results support the traditional model of job satisfaction and argue against the two-factor theory. Hulin and Smith concluded that Herzberg's results appear to be method bound and the conclusions appear to rely on method variance rather than true content or scale variance.

(C. A. Lindsay, E. Marks, and L. Gorlow, 1967)

Lindsay, Marks, and Gorlow [37] stated that part of the inconsistency in the studies relating to the two-factor theory may be due

to the differences in the methodologies used in the various studies and to the lack of a formal statement of the relations implied in the theory. Lindsay et al. revised the two-factor theory into a bipolar model of job satisfaction and formalized the relations among the motivators, hygienes, and job satisfactions. The data collected on 270 professional and nonprofessional employees supported three hypotheses derived from the revised model: (1) a significant proportion of the variance in job satisfaction is accounted for by motivators and hygienes, (2) the relationship of motivators and hygienes to satisfaction is linear in the parameters but nonadditive; that is, satisfaction is a joint function of motivators and hygienes and (3) a greater proportion of the variance in job satisfaction is contributed by motivators than by hygienes.

Lindsay et al. concluded that their research did not, in general, support the two-factor theory. These authors have argued that the studies using more rigorous methodologies have tended to support, not the Herzberg model, but rather the traditional model of the determinants of job satisfaction.

(M. G. Wolf, 1967)

Wolf [38] reported data on 83 nonmanagerial employees which are only partially supportive of the two-factor theory. Content factors were found to be most important in determining job satisfaction, but context factors were not significantly related to job dissatisfaction. On the other hand, Wolf found that context factors were related to both satisfaction and dissatisfaction with the company. Therefore, the roles of content and context factors were found to vary as a function of the object of the satisfaction-dissatisfaction measurement, that

is, the job versus the company.

(G. B. Graen, 1968)

Graen's [39] subjects were 167 male and 152 female employees of a corporation. Data collected included satisfaction with the work itself, promotion, and pay as measured by the Job Description Index and overall job satisfaction as measured by the General Motors Faces Scale. Data were analyzed by analysis of variance. Results were that two-factor predictions were not confirmed on four out of six relationships, and in three out of the four misses the results were opposite to those predicted. The traditional theory was thus supported.

(B. L. Hinton, 1968)

While recognizing the intuitive appeal of the Herzberg two-factor theory, Hinton [40] went on to point out the predictive problems of a theory based on aggregate results. He charged that data and interpretation of them have been inadequate rather than inaccurate. He reviewed many of the studies done to date, and dwelt on the weakness of recall of a single incident as a method of study. Alternating recall time periods and the "good"/"bad" order of incidents, collecting three sets of data at six-week intervals from undergraduate students, and carefully coding and analyzing the data, he concluded that neither is the Herzberg methodology reliable nor is his theory valid, although it may well represent a significant insight. His rejection was based primarily on the inconsistency of findings across repeated measures.

(F. Friendlander and N. Margulies, 1969)

Friendlander and Margulies [41] were concerned with showing the feasibility of predicting employee satisfactions (a) from the

organizational climate in which he works and (b) from a knowledge of his work values. They hypothesized climate as the primary determinant of job satisfaction, with values as moderating influences on the climate-satisfaction relationship. They maintained that measurements of these variables must be made via the perception of the individual whose behavior is being studied, since organizational climate, like job satisfaction, is as he perceives it. Perceptions of an outsider could never match those based on first-hand experience as to extent and involvement.

The authors concluded that maximal satisfaction with different areas of one's work demands different mixes of climate components. In addition, the combinations of different climate components which maximize work satisfactions are moderated by the work values held by the employee. For example, satisfaction with task involvement is maximized in climates high in management thrust, while satisfaction with interpersonal relations is heightened in climates low in routine burdensome duties. Among those who value work highly, satisfaction is enhanced in climates high in management thrust and intimacy and low in burdensome duties, while among those who value work less highly, satisfaction is maximized by climates high in group spirit and low in disengagement. These findings are nonsupportive of the two-factor theory.

(R. Kosmo and O. Behling, 1969)

Kosmo and Behling [42] reviewed the essential points of the duality and single continuum theories, made an attempt to synthesize the two, and predicted satisfaction from various combinations of motivators and hygienes levels. Their sample consisted of 84

registered nurses employed at the staff level at a state hospital, and it was representative of the hospital population. The sample was divided into four subgroups, each subgroup representing a different combination of low and high perception of motivators and hygienes. The Mann-Whitney U Test was used to evaluate the significance of differences among job satisfaction scores for the four groups.

Results indicated that significantly higher levels of overall satisfaction were associated with the higher levels of perceived motivators. In addition, the nurses who perceived high levels of both motivators and hygienes were significantly more satisfied than those who perceived low levels of motivators and hygienes. Higher levels of satisfaction were associated with the higher levels of perceived hygienes when the motivators were at a high level. At low motivator levels, no significant difference in job satisfaction appeared. The difference in level of satisfaction was not significant for the high motivator-low hygiene group in comparison with the low motivator-high hygiene group.

Kosmo and Behling concluded that hygienes can and do have influence above the neutral point, but their effect below the neutral point is not significant. They also conclude that their original intent to test the possibility of a synthesis between the Herzberg duality and the traditional single continuum by forcing Herzberg's dual continuum to conform to the single one did not meet with success. Therefore, the Herzberg methodology and conventional scalar approaches are not measuring different aspects of the same construct--job satisfaction, but they are tapping distinct parts of the individual's view of and relations with the world around him.

(K. Davis and G. W. Allen, 1970)

Over 700 employees of the three largest banks of a Western state responded to survey sheets distributed in group meetings by Davis and Allen [43]. In addition to narrations of high and low sequences, the subjects were asked to estimate the duration of the feeling described. Admittedly the validity of the data thus obtained depended upon the memory and judgment of the subjects, but the authors felt an assumption of validity was justified.

High feelings were generally found to last longer than low ones. Motivators were the most frequently mentioned causes of high feelings and maintenance factors of low feelings in all time classifications. Motivators emerged the more potent affectors of both high and low feelings, leading the authors to theorize that their potency caused the affected feelings to last longer. They also explained the duration phenomenon as a tendency to suppress lows and magnify highs, a defense mechanism which possibly causes the subject to remember lows as shorter or to choose short-run events to describe lows.

INDUSTRY
TRAINING

Salary and advancement, both official rewards, were found to generate mainly long-run feelings. Salary was a long-run dissatisfier, whereas recognition caused both high and low long-run feeling.

(D. P. Schwab and H. C. Heneman, 1970)

Schwab and Heneman [44] used the storytelling method to investigate two often-criticized aspects of the Herzberg theory: reliability of response classification using Herzberg's procedure, and analysis and interpretation of individual responses. Their subjects were 85 first- and second-level supervisors, whose story sequences were analyzed and classified into 16 first-level factors according to Herzberg's

classification. High inter-coder reliability was obtained in the four steps of the process. Their aggregate results confirmed the findings of other studies employing the storytelling method, but individual responses to favorable and unfavorable sequences were inadequately predicted by the two-factor theory.

The authors concluded that a psychological theory which predicts individual attitudes incorrectly more often than not is at best an overly-simplified theory in need of substantial modification.

(P. E. Wernimont, P. Toren, and H. Kopell, 1970)

Wernimont, Toren, and Kopell [45] said that no content-context dichotomy appeared in their analysis of 17 variables which subjects were asked to rank (a) by importance in stimulating the employee to put extra effort into doing his job and (b) by contribution to personal satisfaction on the job, as these variables pertained to greater personal satisfaction on the job. They concluded that motivator and satisfier may not be used interchangeably.

(V. C. Brenner, C. W. Carmack, and M. G. Weinstein, 1971)

The study by Brenner, Carmack, and Weinstein [46] presents the results of an empirical test of the motivation-hygiene theory and its evaluation as an alternative to the need-hierarchy theory for studying job satisfaction. The respondents were 214 Certified Public Accountants who adequately answered the questionnaire based on the Herzberg theory.

To determine what factors influence job satisfaction, a correlation analysis was done between the motivating and hygiene factors and the dependent variable, job satisfaction.

The resulting data of the analysis show that of the five factors having the highest correlation to job satisfaction, two were classified as motivating and three as hygienes. This differs with Herzberg's theory that motivators relate more strongly to job satisfaction than hygiene factors.

The findings indicate that the respondents received job satisfaction and job dissatisfaction from both the motivating and the hygiene factors. Clearly this fails to support the two-factor theory.

(L. K. Waters and D. Roach, 1971)

Five different versions of the two-factor theory were used by Waters and Roach [47] in a questionnaire to study job satisfaction of 167 female nonsupervisory clerical workers, 54 female supervisors, 71 male managerial personnel, and 51 male technical personnel from one national insurance company.

The five versions are summarized briefly below:

Theory I states that all intrinsic variables (motivators) combined contribute more to job satisfaction than to job dissatisfaction, and all extrinsic variables (hygienes) combined contribute more to job dissatisfaction than to job satisfaction.

Theory II states that all intrinsic variables combined contribute more to job satisfaction than do all extrinsic variables combined, and all extrinsic variables combined contribute more to job dissatisfaction than do all intrinsic variables combined.

Theory III states that each intrinsic variable contributes more to job satisfaction than to job dissatisfaction, and opposite for each extrinsic variable.

Theory IV states that the conditions of Theory III hold plus each principal intrinsic variable contributes more to job satisfaction than does any extrinsic variable, and the converse for contribution to job dissatisfaction.

Theory V states that only intrinsic variables contribute to job satisfaction and only extrinsic variables contribute to job dissatisfaction.

The results showed that in three of the four samples overall satisfaction was as predictable as overall dissatisfaction regardless of whether intrinsic or extrinsic factors were used as predictors. These results do not support Theory I. However, in the male managerial sample Theory I was supported.

The test of Theory II was not supported in three of the sample groups where the intrinsic job factors correlated higher with both overall satisfaction and overall dissatisfaction than did the extrinsic job factors. The predictions of Theory II were supported by the male technical personnel.

The data offered no support for Theory III for either the male or female samples. Since Theories IV and V require Theory III to be supported in addition to stronger assertions, no tests were made on these versions of the two-factor theory.

It can be concluded from these results that the two-factor theory is not supported for female office workers when the versions of the theory are tested with data obtained by methods other than respondent-coded procedure. For males the validity of Theories I and II was indeterminate.

(S. Kerr, A. Harlan, and R. M. Stogdill, 1974)

Kerr, Harlan, and Stogdill [48] did a study to see if the systematic discriminations made by respondents between hygiene factors and motivators are a reflection of realities of their work situations, as Herzberg claimed, or are such discriminations due to a kind of self-protection, either against the researchers or to preserve the

respondent's self-concept, or some combination of these.

Data were obtained from 533 respondents, including 188 supervisors, 202 undergraduate upperclassmen business majors, and 143 undergraduate lowerclassmen with no declared major.

Respondents were asked to make judgments about a hypothetical situation, devoid of reality, on 13 job dimensions. The rationale being that replies could not be based on real-world events, and therefore, a systematic discrimination between motivator and hygiene factors could probably be attributed to defense mechanisms, norms, or social desirability.

The results show a surprising similarity in rank orderings of response by supervisors, by upperclass business majors, and by the lowerclassmen. Therefore, there is apparently a high consensus between supervisors and students as to what to claim to be interested in for purposes of job attainment.

Whether the responses generated by the subjects are the result of social desirability, defensiveness, childhood socialization, or some combination of these, the fact remains that these responses systematically distinguished between motivator and hygiene factors in a hypothetical situation which does not warrant such a distinction. The data from the study do not support or refute Herzberg's two-factor theory because the methodology is very different from that used by Herzberg.

Summary

Herzberg's two-factor theory has generated much research, controversy, and confusion. Herzberg et al. formulated what has become

known as the two-factor theory of job satisfaction. Their investigation supported the conclusion that factors causing job satisfaction (motivators) are different from, not merely opposite to, factors causing job dissatisfaction (hygienes).

The fact that different methods yield different results is obvious from a review of the studies. Most of the researchers who state that Herzberg's conclusions are a function of his methodology do not explain the consistency with which it yields these results.

Herzberg took the need hierarchy into account when he theorized that hygiene needs must be met before motivators needs become operative, and that in the complete absence of motivators, hygienes may act as motivators for short periods of time.

In general, evidence has accumulated indicating that motivators and hygienes are neither unidimensional nor independent, that either type of factor can produce job satisfaction or job dissatisfaction, and that intrinsic factors are generally more strongly related to both overall job satisfaction and overall job dissatisfaction than extrinsic factors. The generality of the two-factor theory is strongly questioned since it has been found that individuals at different occupational levels respond differently to both the motivators and hygienes.

The biggest failing contributing to the Herzberg controversy is acceptance of the idea that there is a single uniscaler theory called "job satisfaction." Different aspects of an individual's job are tapped in different ways by different data gathering techniques, and that different authors are measuring different things in different ways and arriving at different conclusions.

It can be stated that the two-factor theory is a partial explanation of the phenomenon of employee motivation and that much more systematic research is needed to attain a deeper and better understanding of an individual's work motivations.

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CHAPTER IV

CONCLUSIONS

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In conclusion it can be stated that a theory of job motivation that is unified, definitive, and universal does not yet exist.

Studies on job satisfaction are growing in number and at an accelerating rate. At the same time, there is an increasing number of conflicting explanations as to what influences the level of job satisfaction. As research proceeds, more predictors of job satisfaction are being discovered, and an increasing variety of interpretations are being given to the empirical evidence which is produced. In discovering a large number of factors relating to job satisfaction, we are getting closer to understanding the real world.

The two basic streams of thought that characterize research in the area of work motivation are Porter's need-hierarchy approach and Herzberg's motivation-hygiene theory. The concept of "need" underlies both Porter's and Herzberg's approaches. Porter uses Maslow's need-hierarchy system where the individual is conceived as having the basic needs of social, security, esteem, autonomy, and self-actualization, and the satisfaction of them is rewarding. Herzberg advocates the notion of two basic needs: pain avoidance and psychological growth.

Needs are conceived in the two basic approaches to job motivation as being primarily psychologically and socially derived. The environment is viewed as an important aspect of the motivation phenomenon.

Porter studied the impact of certain organizational variables upon job attitudes. Herzberg et al. distinguished between job content and job context. According to Herzberg et al., the former produces satisfaction and the latter produces dissatisfaction. The self-actualizing concept underlies both approaches. Maslow's need-hierarchy system adopted by Porter emphasizes the self-actualizing tendency of man and argues in favor of growth motivation as compared with deficiency concepts of motivation advanced by drive-reduction theorists. Herzberg et al. stressed man's duality of needs, with the motivators satisfying man's need to grow psychologically and exercise his capabilities.

Replication of Porter's studies has generally confirmed his findings, especially the notion that job level as well as role-set diversity are major factors determining perceptions of needs and need satisfaction.

Replications of the two-factor theory using the same recall method used by the original study have generally supported the theory. But, other follow-up studies that have used different methods have yielded conflicting results and provided evidence regarding the limited generality of the theory.

It is clear from the results of the studies that the effects of organizational variables such as security, prestige, need for accomplishment, and power are dependent on a number of complex interactions among the organizational variables in the determination of perceptions of needs and need satisfaction. People at the same organizational levels, but working in different structural arrangements, may not respond similarly to the same reward system since job level and the type of organization structure interact to produce different

patterns of perceptions of needs and need satisfactions.

Based on the research it seems (one organizational variable is inadequate to explain job motivation.) The findings also suggest the need for maximum feasible individuality in designing reward systems, assuming that reward systems are designed to generate effort directed toward organizational goals. Assume that meaningful rewards are directed toward the satisfaction of unsatisfied needs. Given these assumptions, the variations in perceived need deficiencies as a function of organizational variables imply that maximum performance can only be achieved when reward systems are designed and administered in the perspective of the organizational influences.

Instead of trying to guide and counsel people into a uniform pattern that is appropriate to the organization, the more effective approach is to modify the organization and make it more flexible so that it can accommodate differing styles. This flexibility is being advanced in some firms through the use of participative management and management by objectives. Organizational objectives will be realized when individual efforts are recognized and rewarded, and when legitimate effort becomes a source of pride and motivation.

In organizations, attitude surveys as described in this paper could be given periodically to managers. Over a period of years the results could be compared to see how the person's satisfaction with his job has changed, if any. If promotions are involved, then the satisfaction the manager perceives at various job levels can be evaluated. This would make it possible to compare the levels of motivation that exist in different parts of the same organization and in different organizations. Whenever a definite negative change occurs in a

dependent variable, remedial measures could be taken to increase the person's satisfaction in the particular area. This has not been done since most attitude surveys have focused only on satisfaction and not motivation. Satisfaction measures, however, when collected along with motivational measures of power, prestige, higher salary, and greater authority should enable an organization to predict what the future holds not only in terms of such extrinsic organizational headaches as absenteeism and turnover but also in terms of motivation.

Organizations should make an effort to regularly measure the kinds of attitudes that exist. If the levels of the attitudes are monitored over time, then it should be possible to measure and predict changes in the motivation level in an organization. It should also be possible to gauge the impact of changes in pay and promotion policies on the degree to which these rewards operate as motivators. By measuring the right kind of attitudes the potential exists for monitoring the motivation levels that exist in an organization over time.

Superiors and subordinates should work toward developing shared perceptions of how the subordinate's job should be done. It is important that they have common perceptions, otherwise the situation can develop where a subordinate may be very motivated and yet be performing incorrectly because he perceives his role incorrectly. One way of decreasing the chance that this might occur is by structuring performance appraisal sessions in such a way that specific objectives and goals are decided on. Another approach is to have both superiors and subordinates develop job descriptions for the subordinates' job. The elements of these descriptions could then be ranked for importance by each independently and these ranks compared as a way of getting the

superior and subordinate to talk about the differences in their perceptions of the job.

Superiors should be aware of what type of outcomes their subordinates value so that these outcomes can be tied to their performance. That is, superiors should try to individualize the rewards system to capitalize on the individual differences among people in how they value different outcomes.

Organizations that wish to use pay or other rewards as a motivator should select people on the basis of how important these rewards are to them. If pay is to be used, for example, people who value pay should be selected. Similarly, if organizational variables such as power, prestige, or status are used as rewards, then people high on autonomy and self-esteem should be selected.

Higher remuneration or a higher-level position are not the only rewards that individuals seek, nor are they the only rewards that lead to individual satisfaction. As pointed out in this research paper, we are all individuals with diverse desires and needs, and satisfy these in varied ways. (The greater the satisfaction perceived of the dependent variables of security, social, esteem, autonomy, and self-actualization, the more content the employee and the more able he will be in carrying out his position.) Should an individual appear less motivated after a promotion, the comparative results could possibly be used to determine the source of the problems.

If firms would exchange these attitude survey results, then a firm acquiring a new individual could evaluate his background and place him in a capacity where he could best help the firm, as well as satisfy his needs to a greater extent. These surveys could be helpful in

identifying the different effects of dimensions of role diversity on people with different motives and abilities and on the various relationships between the personality variables and satisfaction with individual roles.

Although much research has been conducted on individual motivation, further research is needed in order to allow for better utilization of organizational motivation systems in satisfying the complex needs of individuals.

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Purpose of Study: It was the intention of this research paper to investigate the contributing factors of worker motivation in today's complex organizational structure. This review summarizes a myriad of studies from the field research of Porter's need-hierarchy approach and the Herzberg et al. motivation-hygiene concept.

Findings and Conclusion: A theory of job motivation that is unified, definitive, and universal does not yet exist. Replications of Porter's research on the need-hierarchy approach have generally confirmed his findings, while replications of the Herzberg et al. motivation-hygiene theory have yielded conflicting results and provided evidence regarding the limited generality of the theory. The results of the numerous studies show that the effects of organizational variables such as security, prestige, need for accomplishment, and power are dependent on a number of complex interactions among the variables in the determination of perceptions of needs and need satisfaction.

ADVISER'S APPROVAL

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