

THESIS





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THE APPLICATION OF MARKETING CONCEPTS TO PERSONNEL MANAGEMENT

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Frank

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THE APPLICATION OF MARKETING CONCEPTS

TO PERSONNEL MANAGEMENT

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Garold Dean Kortge

A DISSERTATION

Submitted to Michigan State University in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

Department of Marketing and Transportation Administration

ABSTRACT

THE APPLICATION OF MARKETING CONCEPTS TO PERSONNEL MANAGEMENT

By

Garold Dean Kortge

Marketing has throughout its history utilized the knowledge of other disciplines to aid in the understanding and managing of traditional marketing activities. The primary flow of this knowledge and understanding has been from other disciplines into the marketing discipline. The borrowed concepts have been integrated within the marketing discipline to synthesize new concepts, knowledge, and understanding. The newly synthesized knowledge then flows from the marketing discipline to other disciplines. It is this secondary flow level, the flow of marketing concepts into the conceptual framework of the personnel management discipline, which is the subject of this dissertation.

Parameters of the Problem

This research effort asks, first, whether marketing concepts are being applied to and utilized in personnel management and do they add insight to and increase the effectiveness of the organization's program? Second, what marketing concepts are being applied to personnel management and are there additional marketing concepts which lend themselves to such application?

Marketing Thought

Marketing thought grows in a concentric multiconical configuration. As new concepts and knowledge come to the marketing discipline and are synthesized into new knowledge, multiple levels of knowledge develop. These multilevels form the truncated cone model of marketing thought. The removal of a "concept wedge" from the truncated cone model and its insertion into the framework of another discipline generates the xenolithic structure of marketing thought.

Normative Description

Several marketing variable/personnel function conceptual relationships are identified and two are described; the application of the marketing product life cycle concept to the personnel learning curve concept, and the marketing payoff-tolerance functional concept to the personnel job satisfaction concept. The product can be prevented from slipping into the product life cycle decline stage through the application of extension techniques. Similarly, extension techniques may be applied to the peak proficiency stage of the learning curve.

The marketing payoff-tolerance concept is applied to equity theory of job satisfaction establishing two job dissatisfaction areas and the expansion of the job satisfaction line into a two-dimensional satisfaction-tolerance range.

Research Design

To measure the operational usefulness of each of the four elements--application, utilization, insight, and effectiveness--and four marketing variables--product, promotion, place, and price-which are of interest to this study, a questionnaire was constructed. Practitioners indicated their answer on a Likert-type scale. Mean weighted values for each statement were calculated on an individual, on a group, and on an aggregate basis, by marketing variable, by element, and by marketing concept. The calculated means were ranked and the ranked data were subjected to the Friedman Analysis of Variance of Ranks to determine the equality of the means. Where inequality existed, the ranks were tested by the Scheffé Method for Multiple Comparisons to identify the unequal mean.

Conclusions and Recommendations

The results of the research show that: (1) the respondents reported that statistically there is no significant difference in their use and understanding among the elements, (2) the respondents as a group reported that statistically there is a significant difference in their use and understanding of at least one of the marketing variables but this variable could not be statistically identified, and (3) on an individual basis, four of the respondents reported that statistically there is a significant difference in their use and understanding among the marketing variables.

In operationalizing the xenolithic structure of marketing thought the following recommendations are made. First, marketing concepts to be viable for application to personnel management must exhibit the characteristics of all four elements and must do so at an appropriate level and in an integrated balance. Second, three marketing concepts from each of the four marketing variables tested are identified as being viable problem-solving conceptual tools for incorporation into the individual practitioner's day-to-day personnel program.

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DEDICATION TO

Beatrice and Fred, who persisted, Barbara, who persevered, and Margot, Jeffrey, and Diane, who interfered.

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iii

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TABLE OF CONTENTS

																			Page
LIST	0F	TABLES .		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	vii
LIST	0F	FIGURES .		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	x
LIST	0F	APPENDICE	S.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	xii

Chapter

Ι.	A STRUCTURE OF MARKETING THOUGHT: PARAMETERS OF THE	
	STUDY	. 1
	Introduction	. 1
	Statement of the Problem	. 4
	Purpose of the Study	. 4
	Significance of the Study	. 5
	Background of the Problem	. 5
	Development of Marketing Theory	. 6
	Marketing as a Social Activity	. 8
	The Marketing Concept	. 11
	The Marketing Domain	. 15
	Structural Framework	. 16
	Parameters of the Study	. 22
	Problems to be Researched	. 23
	Hypotheses	. 24
	Research Strategy	. 26
	Bibliography	. 34
II.	APPLYING MARKETING CONCEPTS TO PERSONNEL MANAGEMENT	. 35
	A Matrix Approach	. 35
	The Product/Training and Development Relationship .	. 37
	The Product Life Cycle	. 38
	The Learning Curve.	. 42
	The Product Life Cycle/Learning Curve Relationship	. 44
	The Place/Motivation and Compensation Relationship .	. 51
	The Payoff-Tolerance Function	. 52

Ρ	a	α	e
	~	-	-

	Job Satisfaction The Payoff-Tolerance/Job	Sa	atis	fac	tio	n R	ela	tio	nsh	in	•	57 64
	Bibliography	•	•	•	•	•	•	•	•	• •	•	72
III.	RESEARCH DESIGN	•	•	•	•	•	•	•	•	•	•	74
	Objective of the Study .	•	•	•	•	•	•	•	•	•	•	74
	Sampling	•	•	•	•	•	•	•	•	•	•	74
	The Relevant Population	•	•	•	•	•	•	•	•	•	•	74
	Sample Selection	•	•	•	•		•	•	•	•		75
	Sample Size	•	•	•	•	•	•	•	•	•	•	75
	Scaling	•	•	•	•	•	•		•		•	76
	Likert Summated Scale .											76
	Data Collection				•							80
	Questionnaire Design .				-					-		81
	Questionnaire Preparatio	้าก		-	-					•	•	81
	Questionnaire Pretest				•			•	•	•	•	83
	Questionnaire Completion	n .	•	•	•	•	•	•	•	•	•	84
	Data Recording	•••	•	•	•	•	•	•	•	•	•	85
	Individual Data Pecordi	••••	•	•	•	•	•	•	•	•	•	85
	Group Data Recording	ig	•	•	•	•	•	•	•	•	•	80
	Aganogato Data Recording .	•	•	•	•	•	•	•	•	•	•	0/
	Aggregate Data Recording	J •	•	•	•	•	•	•	•	•	•	102
	Bibliography	•	•	•	•	•	•	•	•	•	•	102
IV.	CONCLUSIONS AND RECOMMENDA	ATI	ONS	•	•	•	•	•	•	•	•	103
	Conclusions			•		•						103
	Marketing Variables and	El	emen	ts-	-Aa	are	aat	e				103
	Decision MatrixAggrega	ate	•					-				105
	Marketing VariablesGr	מער										106
	FlementsGroup		•									112
	Decision MatrixIndivid	dua'	1	•				•	•	•	·	113
	ResuméConclusions	444	•••	•	•	•	•	•	•	•	•	124
	Recommendations .	•	•	•	•	•	•	•	•	•	•	125
	Floments	•	•	•	•	•	•	•	•	•	•	125
	Mankoting Variables	•	•	•	•	•	•	•	•	•	•	125
	Parketing variables .	•	•	•	•	•	•	•	•	•	•	120
		•	•	•	•	•	•	•	•	•	•	135
	Dibliggeraphy	•	•	•	•	•	•	•	•	•	•	140
	Bibliography	•	•	•	•	•	•	•	•	•	•	141
	• •											
APPEND	1X	•	•	•	•	•	•	•	•	•	•	142

LIST OF TABLES

Table				Page
1-1.	Questionnaire Statement Response Distribution .	•	•	28
1-2.	Questionnaire Statement Weighted Score and Total Weighted Score	•	•	29
1-3.	Questionnaire Statement Cross-Reference Numbering Chart	•	•	30
1-4.	Decision MatrixStatement Response for Variable/ Element RelationshipsIndividual	•	•	30
1-5.	Statement Response for Marketing VariablesGroup	•	•	31
1-6.	Statement Response for ElementsGroup	•	•	31
1-7.	Hypotheses MatrixStatement Response for Variable Element RelationshipsAggregate	?/	•	32
1-8.	Marketing ConceptsQuads	•	•	33
3-1.	Scoring a Likert-Type Scale	•	•	77
3-2.	Modified Scoring for a Likert-Type Scale	•	•	77
3-3.	Hypotheses Matrix	•	•	81
3-4.	Marketing Concepts Appropriate to Personnel Manage	emer	۱t	82
3-5.	Questionnaire Statement Cross-Reference Numbering Chart	•	•	86
3-6.	Response Distribution for Each Respondent	•	•	86
3-7.	Response Assigned Weights	•	•	87
3-8.	Statement Individual, Total Weighted, and Total Mean Score	•	•	88
3-9.	Respondent/Weighted Score Frequency Distribution	•	•	89

Table		Page
3-10.	Statement Numerical Guide	90
3-11.	Decision MatrixIndividual	90
3-12.	Marketing Variables (4 P's)Group	91
3-13.	Elements (A,U,I,E)Group	92
3-14.	Marketing ConceptsQuadsIndividual	93
3-15.	Questionnaire Statement Response Distribution	94
3-16.	Questionnaire Statement Weighted Score, Total Weighted Score, and Total Mean Score	l 96
3-17.	Statement Frequency Distribution	97
3-18.	Hypotheses MatrixAggregate	99
3-19.	Marketing Variables (4 P's)Aggregate	99
3-20.	Elements (A,U,I,E)Aggregate	100
3-21.	Marketing ConceptsQuadsAggregate	101
4-1.	Marketing Variables and ElementsAggregate Mean and Ranking	104
4-2.	Decision MatrixAggregate Rankings	105
4-3.	Marketing VariablesRespondents' RankingGroup	107
4-4.	Mean Differences for the Marketing VariablesGroup .	111
4-5.	ElementsRespondents' RankingGroup	112
4-6.	Decision MatrixIndividual Ranking	114
4-7.	Respondents' Friedman (χ_r^2) ValuesIndividual	115
4-8.	Mean Differences for the Marketing Variables Individual Three	118
4-9.	Mean Differences for the Marketing Variables Individual Five	120
4-10.	Mean Differences for the Marketing Variables Individual Ten	121

Table			Page	е
4-11	Mean Differences for the Marketing Variables Individual Eleven	•	12	3

I

LIST OF FIGURES

Figure			Page
1-1.	Eclectic Conceptual Flow Diagram	•	2
1-2.	Synthesizing Conceptual Flow Model	•	3
1-3.	Marketing Theory: Its Base and Superstructure	•	17
1-4.	Marketing Theory: Its Base and Superstructure	•	18
1-5.	Marketing Theory: Its Base and Superstructure	•	18
1-6.	Multiconical Structure of Marketing Thought	•	19
1-7.	Truncated Cone Model of Marketing Thought	•	20
1-8.	Xenolithic Model of Marketing Thought	•	21
2-1.	Marketing Concepts/Personnel ConceptsMatrix Model	•	36
2-2.	McCarthy; Life Cycle of a Typical Product	•	39
2-3.	Levitt; Hypothetical Life CycleNylon	•	40
2-4.	Staudt, Taylor, and Bowersox; Stages of Market Development	•	40
2-5.	Smallwood; Life Cycle Stages of Various Products .	•	41
2-6.	Strauss and Sayles; Learning Curve	•	42
2-7.	Extension of the Learning Curve	•	46
2-8.	Bucklin; The Limits to Authority, A, in a Distribution Channel, Supplier's View	on •	53
2-9.	Bucklin; Control in Distribution: the Role of Persuasion, Authority, and Coercion	•	54
2-10.	El-Ansary and Robicheaux; A Revised Model of Channel Relations	•	55

Figure						Page
2-11.	Fulfillment Theory	•	•	•	•	58
2-12.	Discrepancy Theory	•	•	•	•	59
2-13.	Equity Theory	•	•	•	•	61
2-14.	Two-Factor Theory	•	•	•	•	62
2-15.	Satisfaction-Tolerance Range	•	•	•	•	65
2-16.	Area of Acceptable Settlement	•	•	•	•	67
2-17.	Zone of BargainingArea ABDC	•	•	•	•	70
3-1.	Statement Frequency Distribution Bar Graph	•	•	•	•	98

LIST OF APPENDICES

Append	lix	Page
А	Marketing Concept Statements	143
В	Study Questionnaire	162
C-1	Table 3-5:QuestionnaireStatementCrossReferenceNumberingChart	185
C-2	Table 3-6:Response Distribution for EachRespondent	189
C-3	Table 3-8: Statement Individual, Total Weighted, and Total Mean Score	195
C-4	Table 3-11: Decision MatrixIndividual . . .	201
C-5	Table 3-14: Marketing ConceptsQuadsIndividual .	204
C-6	Table 3-15:QuestionnaireStatementReponseDistribution	207
C-7	Table 3-16: Questionnaire Statement Weighted Score, Total Weighted Score, and Total Mean Score	213
D-1	Table 4-6: Decision MatrixIndividual Ranking	220
D-2	Frequency DistributionAggregate	227
D-3	Hypotheses Decision MatrixAggregate	231
D-4	Marketing ConceptsQuadsAggregate	234

CHAPTER I

A STRUCTURE OF MARKETING THOUGHT PARAMETERS OF THE STUDY

Introduction

Marketing has throughout its history utilized the knowledge of other disciplines to aid in the understanding and managing of traditional marketing activities. Marketers were not deterred from using such knowledge and understanding simply because it did not carry the marketing label. Now, marketing concepts, techniques, knowledge, and understanding can be useful in understanding the phenomena of other disciplines which lie beyond the traditional boundaries of the marketing discipline. If the concepts and techniques usually associated with the marketing discipline can contribute to knowledge and understanding of a particular phenomenon or situation, then they should be applied to that situation. Marketing concepts should be employed wherever they are useful (3:57-62).

The primary flow of knowledge and understanding has been from the disciplines of economics, psychology, sociology, personnel management, finance, and other behaviorial disciplines into the marketing discipline. This drawing together of selected conceptual elements from other disciplines has led to the eclectic conceptual structure of the marketing discipline as shown in Figure 1-1.



Figure 1-1.--Eclectic Conceptual Flow Diagram.

However, our model shall expand on this structure to include not only this multilithic structure but also the synergistic synthesis of new concepts and the outflow of these concepts to other disciplines as shown in Figure 1-2.

These borrowed conceptual elements have been integrated to synthesize new concepts, knowledge, and understanding and to provide synergism to the synthesis process. This internal flow again provides the impetus for the synthesizing of newer knowledge. The new synthesized knowledge then flows from the marketing discipline either to its original source or alternatively to one of the other disciplines. It is this secondary flow level, the flow of marketing concepts into the conceptual framework of the personnel management discipline, as shown in Figure 1-2, which is the subject of this dissertation.





Statement of the Problem

While it has long been recognized that the personnel and other disciplines have made considerable contributions to marketing by the adoption and adaptation of their concepts to marketing, the applicability of marketing concepts to other disciplines has not been extensively researched. Philip Kotler has proposed the application of marketing concepts to nonprofit organizations, but the usefulness of marketing ideas to other disciplines remains untested.

This research effort asks two questions. First, whether marketing concepts are being applied to and utilized in personnel management, and if so, do they add insight to and increase the effectiveness of an organization's program? Second, what marketing concepts are being applied to personnel management and are there additional marketing concepts which lend themselves to such application?

Purpose of the Study

The purpose of this study is to investigate the application of marketing concepts to the field of personnel management. The first objective is to examine the contention that: (1) marketing concepts are being applied to the personnel management discipline; (2) marketing concepts are today utilized by practitioners in the performance of the personnel function; (3) the application and utilization of marketing concepts provides new insight into that function; and (4) the application and utilization of and insight

derived from marketing concepts provides additional knowledge and understanding which increases the effectiveness of the personnel management function. The second objective is to: (1) identify which marketing concepts are presently being applied to personnel management; and (2) identify additional marketing concepts which lend themselves to such application.

Significance of the Study

The study will make a contribution to marketing by demonstrating the increased universality of marketing concepts when applied to personnel management. The study also seeks to provide a new structure to the whole of marketing thought. This new structure will verify the universality of marketing and its application to other disciplines. This study should indicate to the academician, the student, and the practitioner the fertile areas for research in this new approach.

Background of the Problem

Although marketing has been recognized as a discipline since the early 1900s, a general theory of marketing remains undeveloped. Marketing practice, viewpoints, concepts, and approaches have been continually changing. Products and services have increased. The practice of marketing has become more people-oriented. Public constraints have tempered private objectives, and environmental influences have become more apparent. All these developments have altered both the content and form of marketing thought, producing

greater diversity of theories and a corresponding need for their unification (1:29). It is Robert Bartels's thesis that marketing theory began as a single, rather general, theory, is currently in a stage of developing a number of related theories, and must be further integrated if a true general theory is to be produced.

Since the end of World War II, marketing thought has developed along a number of lines, with the result that it has been increasingly difficult to know, teach, or practice the "whole" of marketing (1:29). Research is yielding new facts, and the overlapping of fields of study has produced new relationships, laws, and theories (1:29).

Notwithstanding the popularity of the traditional marketing theory first postulated in the 1920s, the theory was not sufficiently flexible to assimilate later changes in marketing experience and research. Consequently, alternative explanations began to appear. New theories developed pertaining to the holism of the marketing process, to behaviorism relevant to participants in the process, to managerialism, and to comparativism.

Development of Marketing Theory

In the 1930s, Ralph Breyer developed a holistic theory, conceiving of marketing as a whole and dealing with entire marketing systems rather than with only their components. He saw the marketing structure as circuits or channels through which flow not only products but also orders, information, payments, and the like. Thus the institutional aspect of performance was

broadened, and the marketing process was divided into its component parts. Breyer also theorized about the relationship between the marketing task and the machinery by which the task was accomplished. Wroe Alderson, Roland Vaile, E. T. Grether, Reavis Cox, E. A. Duddy, and David Revzan also made contributions in this area.

Marketing theory also was developing along other lines. Traditionally, marketers were regarded as economic men, but as noneconomic motivations became recognized and corresponding patterns of behavior were observed, new areas of study were opened. As these views were not easily integrated with the assumptions and observations upon which earlier theory was based, marketing behaviorism evolved as a separate theory. A new generation of scholars and practitioners, trained not only in economics but also in a variety of the social sciences, contributed to this body of thought. Alderson, for example, viewed participants in the marketing process in much the same way sociologists were viewing participants in the internal organization of the firm-in terms of groups, group behavior, and behavior systems. This represented a step away from a merely mechanistic and economic interpretation of marketing and a step toward regarding it as a social process.

Still another area of theory development centered on comparativism, or the relationship of marketing practice to cultural factors. Primitive theory took the environment as given. Comparativism abstracts its essential characteristics and shows

their casual relationships to marketing processes, systems, and practices (1:31).

Other theory emphasized decision making by marketing managers, interpreting it in terms of decision models. These explanations ranged from the simple to the complex. E. J. McCarthy, in 1960, interpreted decisions made in terms of four variables: product, place, promotion, and price--the four "P's." Others variously conceived of decision making as problem solving, risk management, the utilization of scarce resources, and as adaptive behavior. Such theories do not encompass the whole of marketing: they emphasize certain aspects which must be incorporated into a general theory (1:31).

As this brief survey indicates, the base of marketing experience has been broadened significantly in at least four ways in recent decades. Nevertheless, these four approaches have not been assimilated into the structure of traditional marketing thought, and a comprehensive general theory remains to be written (1:31).

Marketing as a Social Activity

The term <u>marketing</u> connotes to most people a function perculiar to business firms. Marketing is seen as the task of finding and stimulating buyers for the firm's output. It involves product development, pricing, distribution, and communications; in more progressive firms, it means continuous attention to the changing needs of customers and the development of new products,

with product modifications and services to meet these needs. But whether marketing is viewed in the older sense of "pushing" products or in the newer sense of "customer satisfaction engineering," it is almost always seen as a business activity (5:10).

It is the contention of Philip Kotler and Sidney Levy that marketing is a pervasive societal activity that goes considerably beyond the selling of toothpaste, soap, and steel. Political contests remind us that candidates are marketed as well as soap; student recruitment by colleges remind us that higher education is marketed; and fund raising reminds us that "causes" are marketed. Yet, these areas are typically ignored by the student of marketing, or sometimes are treated cursorily as public relations or publicity activities. No attempt is made to incorporate these phenomena into the body proper of marketing thought and theory. No attempt is made to redefine the meaning of product development, pricing, distribution, and communications in these newer contexts to see if they have a useful meaning. No attempt is made to examine whether principles of "good" marketing in traditional product areas are transferable to the marketing of services, persons, and ideas (5:10).

Philip Kotler and Sidney Levy see a great opportunity for marketing people to expand their thinking and apply their skills to an increasingly interesting range of social activity. The challenge is there: The term <u>marketing</u> may either take on a broader social meaning or remain as it is narrowly defined, a business activity (5:10).

One of the most striking trends in the United States is the increasing amount of activity being performed by organizations other than business firms. As society moves beyond the stage where shortages of food, clothing, and shelter are the major problems, it begins to organize to meet other social needs. Business enterprises remain the dominant form, but other types of organizations gain in conspicuousness and influence. Many of these become enormous and require the same specialized management skills as traditional business organizations. These nonbusiness organizations have an increasing range of influence, and they affect as many livelihoods and receive as much media attention as major business firms (5:10-11).

All organizations perform many of what are considered business functions. Every organization must perform a financial function: Money must be raised, managed, and budgeted according to sound business principles. Every organization must perform a production function: It must conceive of the best way to arrange inputs to produce its outputs. Every organization must perform a personnel function: People must be hired, trained, assigned, and promoted. Every organization must perform a purchasing function: It must acquire materials in an efficient way through comparing and selecting sources of supply (5:11). It is also clear that every organization must perform a marketing function, whether or not it is recognized as such (5:11).

The Marketing Concept

Modern marketing may have two different meanings in the public mind. One involves selling, influencing, and persuading. Marketing is seen as a huge and increasingly dangerous technology which leads people to buy things, propositions, and causes which they either do not want or which are bad for them (5:15).

The other meaning, unfortunately, is less widely accepted. It involves the concept of sensitively serving and satisfying human needs. This idea was the great contribution of the marketing concept that was promulgated in the 1950s, and that concept now counts many business firms as its practitioners. This perspective maintains that the problem of all business firms in an age of abundance is to develop customer loyalty and satisfaction, and the key to doing so is to focus on the customer's needs. Perhaps the short-run goal of business firms is to sell people on buying existing products, but the long-run objective is to create the products that people need. By recognizing that effective marketing requires a consumer not a product orientation, marketing has taken a new lease on life and has tied its economic function to a higher social purpose (5:15).

It is this second side of marketing that provides a useful concept for all organizations.

It has been argued here that the modern marketing concept serves very naturally to describe an important facet of all organizational activity. All organizations must develop appropriate products to serve their sundry consuming groups and must use modern tools of communications to reach their consuming public. The business heritage of marketing provides a useful set of concepts for guiding all organizations.

The choice facing those who manage nonbusiness organizations is not whether to market or not to market, for no organization can avoid marketing. The choice is whether to do it well or poorly, and on this necessity the case for organizational marketing is basically founded (5:15).

Martin Bell and William Emory state that the marketing concept is the result of an attempt to operationalize a basic philosophy held by economists and marketing theorists. Adam Smith, the father of enterprise economics, noted that the purpose of production is to serve consumption. The authors of early marketing texts also emphasized that the purpose of marketing is to provide consumer satisfactions. Note the following statement from an early edition of a leading marketing text:

Business functions to satisfy the needs of the consumers. The first measure of success of any business is how well it serves the consumer. If an operation is not in the interest of the consumers, it is not justified, no matter how profitable it may be to its owners. He profits most who serves best (2:38).

This philosophy of customer satisfaction was not clearly articulated in operational business terms until the 1950s. However, this situation changed as the "marketing revolution" unfolded. The need to look to the customer for guidance in the organization and direction of business was recognized (2:38).

John B. McKitterick, a leading marketing executive, presented a paper before the American Marketing Association in 1958 which became one of the most widely reproduced statements on the marketing concept. He clearly tied the emerging marketing concept to the problems of corporate growth and the need to develop a meaningful, internalized "philosophy" of business to guide the planning and profit control functions (2:39).

Today, the generally accepted meaning of the marketing concept has three basic elements. The first is a customer orientation. Knowledge of the customer, which requires a thorough understanding of his needs, wants, and behavior, should be the focal point of all marketing action. This implies the development of products and services to meet these needs. The possibility is not excluded that these needs may be "stimulated" by business or that aggressive selling may be needed to persuade consumers to buy goods and services which have been created for them. The second is integrated effort. Ultimately, the entire firm must be in tune with the market by integrating the marketing function with research, product management, sales, and advertising to enhance the firm's total effectiveness. The third is profit direction. The marketing concept recognizes that money must be made for the company, but attention is focused on profit rather than upon sales volume.

As defined here, the marketing concept is entirely operational, although the statement on customer orientation touches on elements that could be philosophical in a different context. But philosophical issues are not raised here. Rather, the purpose of customer orientation is viewed as a means to improve the firm's selling effectiveness. Providing customer satisfaction is a means to achieve a company's profit objective and does not imply protection of the consumer's welfare (2:39).

Some businessmen do not see customer satisfaction as the ultimate goal of marketing. One apparent reason is that the

attempt to satisfy customers may conflict directly with the most basic operational goal of the business--to earn a satisfactory rate of return on its shareholders' investment (2:40). In a conflict between a consumer orientation and profits, the latter usually takes priority (2:40).

It appears that customer orientation has meant little more than looking to the customer for guidance as to what can be sold at a profit. It has meant knowing the customer, perhaps better than he knows himself, and using this knowledge to persuade and even to manipulate him (2:40).

There are indications that this attitude is changing, and with the emergence of consumer welfare as a business goal, a revision in the marketing concept has become necessary (2:40).

Ben Enis stated that the term <u>marketing</u> traditionally has connoted an exchange relationship between buyers and sellers of economic goods and services. As Philip Kotler and Sidney Levy point out, it is the notion of <u>exchange</u> rather than the economic basis for the relationship that is central to the concept of marketing. Exchange is the process of satisfying human wants via <u>trade</u> (barter, swap, purchase, lease, and so on). That is, exchange involves the offering of a product (an entity possessing utility--the ability to satisfy wants) in the expectation of receiving another product in return. Thus, exchange is differentiated from other methods of want satisfaction: Origination (the creation of a utility); force (taking of a utility without the

expectation of payment) (3:58). Kotler has led the movement to broaden the concept of marketing from business firm/customer exchange relationships to organization/customer exchange relationships to organization/client exchange relationships (3:58).

The Marketing Domain

Counter arguments generally fall into three categories. First, it is argued that marketing, like other disciplines, has a traditional domain, and these boundaries should be respected. The second argument is that activities should be studied from the perspective of their primary function. Third, some maintain that transactions for which the exchange cannot be accurately determined should be excluded from the domain of marketing (3:58).

These arguments are not very difficult to refute. The contention that marketing has a traditional, inviolable boundary is tenuous. Traditionally, discipline labels have been arbitrary and subject to change. In addition, any activity can be studied from a number of perspectives (3:58).

Similarly, an attempt to place a particular activity entirely within the confines of one discipline because that activity relates to its subject matter is unduly restrictive. Even in its narrowest conception, marketing is a fundamental human activity. It is difficult--and perhaps not particularly meaningful--to delineate clearly between the marketing component and other aspects of human behavior. Furthermore, if concepts and techniques usually associated with the marketing discipline

can contribute to knowledge and understanding in another area, then they should be applied (3:58).

As to the third argument, the absence of a clearly defined market transaction should not necessarily exclude an activity from marketing-oriented scrutiny. And if exchange activity does occur, then it should not be ignored simply because it is difficult to measure. In short, the test of the broadness of a concept should be its value in explaining the existence or behavior of phenomena in a given situation. In less philosophical terms, marketing concepts should be employed where they are useful (3:58).

In the 1950s and 1960s, marketing learned the value of borrowing from other disciplines (particularly the behavioral sciences and quantitative methods) to aid in understanding and managing traditional marketing activities. Marketers were not deterred from using such material simply because it was not labeled "marketing." Likewise, concepts and techniques that bear the marketing label can be useful in understanding phenomena beyond the traditional boundaries of the marketing discipline (3:61).

Structural Framework

It is helpful to recognize that theory grows somewhat like a sandpile: The higher its pinnacle, the broader must be its base; the broader its base, the higher it must rise before a sharp vertex or focus is attained. A given base of facts or experience supports its own structure of generalization and abstraction (1:29).
As Richard Lewis and Leo Erickson have stated, "the essence of theory is generalization. The essence of generalization is abstraction" (6:14).

Bartels illustrates his point as shown in Figure 1-3.



Figure 1-3.--Marketing Theory: Its Base and Superstructure.

While extended study may reinforce theory already derived, broadening the base of inquiry has two principal effects upon the structure of thought. First, it raises the level of generalization based upon it, as shown in Figure 1-4. Second, it provides separate theories which require unification in a more general theory, as shown in Figure 1-5.

If marketing thought has a general theory, it will fit into one of these situations. It must either be monolithic, presenting an integration from a given base (Figure 1-4), or it must be multipartite (multilithic), representing an integration of several subtheories (Figure 1-5) (1:30).



Figure 1-4.--Marketing Theory: Its Base and Superstructure.



Figure 1-5.--Marketing Theory: Its Base and Superstructure.

Bartels (1:30) recognized and identified the monolithic structure of marketing thought (shown in Figure 1-4), a triangular structure sustained by its own ever-increasing knowledge. Such a structure might better be illustrated by a concentric multiconical shape, as shown in Figure 1-6.



Figure 1-6.--Multiconical Structure of Marketing Thought.

Bartels also recognized and identified the multilithic structure of marketing thought (shown in Figure 1-5), a multitriangular structure whose base constantly increases as does its level of integration (1:30). This multilithic multiconical shape is shown in Figure 1-7.

In the truncated cone model of marketing thought, the base expands as new theory is added. However, this new theory may be derived from within the marketing discipline or from other disciplines. All theories add to the expanding base and to the



Figure 1-7.--Truncated Cone Model of Marketing Thought.

increasing level of integration. Marketing thought today is viewed by Bartels as being based upon developments from within and without the discipline (1:29-33).

If theory can be incorporated into marketing from other disciplines, why not take a portion of marketing theory, as illustrated in Figure 1-7, and apply it to other disciplines? Why not remove a "concept wedge" from the model of marketing thought and insert it into the model of another discipline? Much might be gained in other disciplines, the universality of marketing would be enhanced, and a new area of research would be opened for the marketer.

Figure 1-8 illustrates the approach. A marketing "concept wedge" has been inserted into the theoretical base structure of another discipline, enriching this structure and increasing its level of integration.



Figure 1-8.--Xenolithic Model of Marketing Thought.

I label this new configuration the xenolithic structure of marketing thought. The term xenolithic is a geology term which is defined as a fragment of a rock included in another rock. Marketing exhibits a similar characteristic in that it is a discipline (a rock) which consists of a number of concepts (rock fragments) from its own and from other disciplines. Marketing is not a homogenious entity but is a collection of many pieces. These pieces interact within the marketing structure to synthesize newer concepts which then flow on a secondary level to other disciplines.

The appropriateness of this new structure can be demonstrated in two ways. First, it must be shown that the application of marketing concepts to another discipline increases knowledge and understanding in that area. Second, there must be verification through research that practitioners of this other discipline presently apply and utilize marketing concepts in their daily operations and such use provides additional insight and effectiveness.

Parameters of the Study

Although the framework depicted in Figure 1-8 can be applied to a number of disciplines, space constraints prevent doing so here. Because of the author's experience in Personnel Management, it is to that discipline that marketing concepts will be applied in this study.

Applying the multitude of marketing concepts to the entire field of personnel management would be an almost impossible task in a dissertation of any reasonable length. Furthermore, this is unnecessary for the purpose of examination and research verification. Therefore, a limited number of marketing concepts have been selected from the following marketing variables for study here: the four P's, Product, Promotion, Place, and Price, and their eight subsets: design, packaging, branding, advertising, sales promotion, personal selling, channels, and institutions. These will be related to a limited number of personnel concepts selected from the following personnel functions: recruitment and selection, training and development, motivation and compensation, and labor relations. We shall examine by normative model description how these marketing concepts derived from the above variables and/or their subsets may be applied to and utilized in one or more of the personnel concepts to add insight into each function and thereby increase effectiveness in actual operation.

It is necessary to define the four element terms <u>application</u>, <u>utilization</u>, <u>insight</u>, and <u>effectiveness</u> as they will be used here.

The <u>application</u> element will refer to the insertion of a marketing "concept wedge" into the thought structure of the personnel discipline, as shown in Figure 1-8.

The <u>utilization</u> element will mean the operationalization of marketing concepts in the theoretical structure of the personnel discipline.

The <u>insight</u> element will be defined as the additional dimension which marketing concepts provide to the personnel discipline.

The <u>effectiveness</u> element will refer to the increased ability to effectuate an appropriate personnel program as the result of using marketing concepts in the personnel discipline.

Problems to be Researched

The focus of this study can be stated in terms of four problems to be researched.

- Can the marketing variables of product, promotion, place, and price (and their subsets) be applied to the personnel functions of recruitment and selection, training and development, motivation and compensation, and labor relations?
- Are the marketing variables of product, promotion, place, and price (and their subsets) today utilized in the personnel functions of recruitment and

selection, training and development, motivation and conpensation, and labor relations?

- 3. Do the marketing variables of product, promotion, place, and price (and their subsets) provide insight into the personnel functions of recruitment and selection, training and development, motivation and compensation, and labor relations?
- 4. Do the marketing variables of product, promotion, place, and price (and their subsets) increase the effectiveness of the personnel functions of recruitment and selection, training and development, motivation and compensation, and labor relations?

Hypotheses

These overall questions can be broken down into a more detailed framework for analysis. This study seeks to substantiate or reject sixteen hypotheses.

- <u>Hypothesis</u> 1: The marketing concepts of the product variable are applicable to personnel management.
- <u>Hypothesis</u> 2: The marketing concepts of the product variable are today utilized in structuring the personnel program.
- <u>Hypothesis</u> 3: The marketing concepts of the product variable provides additional insight into the personnel program.
- <u>Hypothesis 4</u>: The marketing concepts of the product variable increases the effectiveness of the personnel program.

- <u>Hypothesis 5</u>: The marketing concepts of the promotion variable are applicable to personnel management.
- <u>Hypothesis</u> 6: The marketing concepts of the promotion variable are today utilized in structuring the personnel program.
- <u>Hypothesis 7</u>: The marketing concepts of the promotion variable provides additional insight into the personnel program.
- <u>Hypothesis</u>: The marketing concepts of the promotion variable increases the effectiveness of the personnel program.
- <u>Hypothesis</u> 9: The marketing concepts of the place variable are applicable to personnel management.
- <u>Hypothesis 10</u>: The marketing concepts of the place variable are today utilized in structuring the personnel program.
- <u>Hypothesis 11</u>: The marketing concepts of the place variable provides additional insight into the personnel program.
- <u>Hypothesis 12</u>: The marketing concepts of the place variable increases the effectiveness of the personnel program.
- <u>Hypothesis 13</u>: The marketing concepts of the price variable are applicable to personnel management.
- <u>Hypothesis 14</u>: The marketing concepts of the price variable are today utilized in structuring the personnel program.
- <u>Hypothesis 15</u>: The marketing concepts of the price variable provides additional insight into the personnel program.
- <u>Hypothesis 16</u>: The marketing concepts of the price variable increases the effectiveness of the personnel program.

Research Strategy

The research phase of the study is designed to measure four aspects: (1) which marketing concepts are perceived by personnel management practitioners to be applicable to personnel management, (2) which marketing concepts are utilized by personnel management practitioners in the everyday personnel operation, (3) which marketing concepts provide the personnel management practitioners with additional insight into the everyday personnel operation, and (4) which marketing concepts increase the effectiveness of the personnel management function.

To measure each of these four aspects, a questionnaire will be structured. The questionnaire will make statements regarding the practitioners present personnel operations and methods and their evaluation of present trends in personnel management. The practitioner will indicate on a Likert-type scale their answer to the statement.

It should be noted that due to the semantical differences between the marketing and personnel disciplines, it becomes impossible, for example, to question a practitioner on the extent of the application of the product concept to the recruitment and selection function. The practitioner will be unable to answer with clarity or certainty because of their lack of understanding of the question. Instead, one must devise a question in language which is more understandable to the practitioner. The practitioners answer to each statement marked on the Likert-type scale will then

provide the researcher with a measurement of which marketing concepts are applied and utilized, the insight provided, and the effectiveness of such application.

Our sample shall consist of twelve Michigan colleges and universities who are members of the Michigan CUPA organization. Each institution possesses an identifiable centralized personnel office within the organizational structure. Each institution has one or more recognized staff employee union and six institutions have a recognized faculty employee union. A questionnaire will be completed by a personnel practitioner for each institution regarding their staff employee personnel operation. The questionnaire will consist of a total of 160 statements which will be randomly scrambled throughout the questionnaire to prevent the practitioner from answering on an "expected answer" basis and force them to answer based upon actual operational criteria.

Upon receipt of the completed questionnaires, the answers will be recorded both individually and aggregated to indicate the number of respondants who answered a given statement in an identical manner, as shown in Table 1-1.

Each column will be assigned a weight of 5 to 1 and the total weighted value for each statement is determined by multiplying the number of responses in each column by the assigned weighted value for that column. The row figures will be added together to provide the total weighted score both individually and aggregate for each statement as shown in Table 1-2.

		Strongly Agree	Agree	Uncertain or Undecided	Disagree	Strongly Disagree
Statement	#1	3	6	2	1	0
Statement	#2	1	8	1	1	1
Statement	#3	1	10	0	1	0
Statement	#4	2	8	1	1	0
Statement	#5	3	8	1	0	0
etc.						

TABLE 1-1.--Questionnaire Statement Response Distribution.^a

^aSee Appendix C-6 for complete table.

By following the questionnaire statement cross-reference numbering chart sequence as shown in Table 1-3, mean values will be calculated for the four marketing variables and the four elements for each individual respondent. The mean values will be inserted into Table 1-4.

The marketing variables/elements relationships for individual respondents will be ranked and the ranks statistically tested by the Friedman Analysis of Variance of Ranks (8:166-172) to determine the equality of the means and by Scheffé's Method for Multiple Comparisons (4:57-59) to identify the unequal mean.

Secondly, and again by following the questionnaire statement cross-reference numbering chart sequence as shown in Table 1-3, mean values will be calculated for the four marketing variables and the four elements for each respondent. The mean values will be inserted into Tables 1-5 and 1-6.

					או שבוקוונכם סכו		
		Strongly Agree	Agree	Uncertain or Undecided	Disagree	Strongly Disagree	Total Weighted Score
Statement #	L	15	24	9	2	0	47
Statement #	#2	5	32	c	2	-	43
Statement #	¥3	5	40	0	2	0	50
Statement #	¥4	10	32	S	2	0	47
Statement #	¥5	5	32	З	0	0	40
etc.							

TABLE 1-2.--Questionnaire Statement Weighted Score and Total Weighted Score.^a

^aSee Appendix C-7 for complete table.

Questionnaire Statement Number	Statement Number
1	110
2	134
3	108
4	125
5	126
156	58
157	157
158	137
159	148
160	10

TABLE 1-3.--Questionnaire Statement Cross-Reference Numbering Chart.^a

^aSee Appendix C-1 for complete table.

TABLE 1-4.--Decision Matrix--Statement Response for Variable/ Element Relationships--Individual.

	Application	Utilization	Insight	Effectiveness
Respondent No.	1			
Product Promotion Place Price	X X X X	X X X X	X X X X	X X X X
	Product	Promotion	Place	Price
Application Utilization Insight Effectiveness	X X X X	X X X X	X X X X	X X X X

Respondent Number	Product	Promotion	Place	Price
l	X	X	X	X
2	X	X	X	X
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	······	······	······	······
11	X	x	X	x
12	X	X	x	Х

TABLE 1-5.--Statement Response for Marketing Variables--Group.

TABLE 1-6.--Statement Response for Elements--Group.

Respondent Number	Application	Utilization	Insight	Effectiveness
1	X	X	x	X
2	Х	X	x	X
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	······		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	······
11	X	X	Х	X
12	X	X	х	X

The marketing variables/elements relationships for groups of individual respondents will be ranked and the ranks statistically tested by the Friedman Analysis of Variance of Ranks (8:166-172) to determine the equality of the means and by Scheffe's Method for Multiple Comparisons (4:57-59) to identify the unequal mean.

Thirdly, and again by following the questionnaire statement cross-reference numbering chart sequence as shown in Table 1-3, a total weighted score for the sixteen marketing variable/elements relationships will be determined by addition of the appropriate statement total weighted scores. The weighted scores will be converted to mean values and the aggregate means will be inserted into Table 1-7.

	Application	Utilization	Insight	Effectiveness
Product	X	X	X	Х
Promotion	Х	X	Х	х
Place	X	X	Х	x
Price	X	Х	x	X

TABLE 1-7.--Hypotheses Matrix--Statement Response for Variable/ Element Relationships--Aggregate.

A frequency distribution of the mean values will be evaluated against a transitional value of mean 3.0 to accept or reject the sixteen above stated hypotheses. The marketing variable/elements relationships will be ranked and the ranks statistically tested by

the Friedman Analysis of Variance of Ranks (8:166-172) to determine the equality of the means and by Scheffé's Method for Multiple Comparisons (4:57-59) to identify the unequal mean.

Lastly, and again following the questionnaire statement cross-reference numbering chart sequence as shown in Table 1-3, the mean values for the forty marketing concepts will be calculated individually and aggregate. The mean values will be inserted into Table 1-8.

Ma 1				R	espo	nden	t Nu	mber					M
Concepts	1	2	3	4	5	6	7	8	9	10	11	12	Mean Score
Product													
1	Х	Х									Х	Х	Х
2	X	X	\sim	w	\sim	\sim	\sim	\sim	\sim	\sim	X	X	X
9	X	X									X	Х	Х
10	Х	Х									Х	Х	х
Promotion													
~~~~~~	$\sim$												
Place													
~~~~~~	$\sim$	$\dots$											
Price													
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	$\sim$	$\sim$	w	ww	ww	ww	w	ww	$\sim$	ww	$\sim$	ww	·····

TABLE 1-8.--Marketing Concepts--Quads--Individual.^a

^aSee Appendix C-5 and D-4 for complete table.

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#### CHAPTER II

# APPLYING MARKETING CONCEPTS TO PERSONNEL MANAGEMENT

Chapter I presented the framework of the xenolithic structure of marketing thought, explained the truncated cone theoretical model, and established the parameters of this study. Chapter II will be devoted to a normalized matrix model of the marketing variables and personnel functions mentioned in Chapter I and will establish some of the relationships between these variables and functions.

#### A Matrix Approach

In the matrix model depicted in Figure 2-1, the marketing variables of product, promotion, place, and price (and their subsets) are placed along the left-hand or vertical axis. The personnel management functions are placed along the top or horizontal axis. The addition of the four P's subsets yields a 4 X 12 matrix. Many of the marketing concepts which are mentioned in the literature appear in Figure 2-1: Exchange (transaction), product life cycle, product development life cycle, two-way communications, qualifying prospects, payoff-tolerance function, list price less discounts, and so forth. The personnel management concepts listed also

		PERSONNEL	FUNCTIONS	・ ベイロ ローク たんし さん 雪白 自己 ある 一般 化 化合理学 化合理学 化合理学 化合理学 化合理学 化合理学 化合理学 化合
MARKETING VARIABLES	RECRUITMENT AND SELECTION	TRAINING AND DEVELOPMENT	MOTIVATION AND COMPENSATION	LABOR RELATIONS
Product:	Exchange (Transaction)/ Selection Interview			
Design		Product Life Cycle/ Learning Curve		Product Development Life Cycle/Contract Proposals
Packaging				PackagingProtection/ Labor Contract
Branding			Shopping Basket/ Fringe Benefits	
Promotion:	Market Segmentation/ Recruitment Process			
Advertising	Parallelism (Aspinwall)/ Recruitment Job Posting			
Sales Promotion		Point-of-Purchase/ On-the-Job Training		
Personal Selling	Qualifying Prospects/ Job Specifications	Two-Way Communications/ Performance Appraisal		Sales Presentations/ Collective Bargaining
Place:	Product Positioning/ Work Place Locations			
Channels			Payoff-Tolerance Function/ Job Satisfaction	
Institutions				Middlemen (Union)/ Employer Distributed
Price:			List Price Less Discounts/ Wages and Benefits	Segmental Cost Analysis/ Pricing the Contract.
Figure 2-1Mark	eting Concepts/Personn	el ConceptsMatrix M	Model.	

have been discussed in the literature: Selection interview, learning curve, fringe benefits, job posting, performance appraisal, collective bargaining, job satisfaction, wages and benefits, pricing the contract, and so forth.

It is impossible to relate all marketing variables to each and every personnel function. Consequently, the researcher has inserted into some of the forty-eight slots of the matrix certain marketing/personnel conceptual combinations that he believes from his experience will exhibit the greatest degree of compatibility, most clearly explain the truncated cone theoretical model, and best demonstrate the application of the xenolithic structure of marketing thought.

Although the matrix is not completely filled, over a dozen combinations appear. To discuss each pair thoroughly would be very time consuming, and only a few need be examined to illustrate the process by which they all can be explored. Two combinations have been selected for detailed analysis here: (1) the product (design)/training and development relationship, that is the product life cycle/learning curve combination; and (2) the place (channels)/ motivation and compensation relationship, that is the payofftolerance function/job satisfaction pair.

#### The Product/Training and Development Relationship

The product life cycle concept (6,7,8,10, and 11) which deals with product performance over time is perhaps one of the richest in marketing thought. It provides insight not only into

the product variable of the marketing mix but also into the other three P's. Perhaps its most important contribution is a framework for coordinating the four P's in the firm's marketing strategy. The product life cycle, and portfolio concepts (11:241) together enrich marketing thought as few other concepts can.

Similarly, the learning curve, developed by Strauss and Sayles (12:210), provides a framework for coordinating the training and development effort of the personnel function. The curve tracks learning level achievement (proficiency) over time.

Because these concepts are related to achievement levels over time, the product life cycle concept can be applied to and utilized in personnel management. Doing so can provide additional insight into the training and development effort and can result in increased effectiveness. To explore this contention, a brief description of the product life cycle and learning curve concepts is in order. The major emphasis will be on describing the potential effectiveness combining these ideas may have upon the field of personnel management.

#### The Product Life Cycle

The product life cycle charts the sales performance of a product over time. The concept has been discussed by several authors, who suggest various stages for a typical product's life span in the marketplace. As shown in Figure 2-2, McCarthy (7:231) views the product life cycle as consisting of four stages: introduction, growth, maturity, and decline.



Figure 2-2.--McCarthy; Life Cycle of a Typical Product.

Levitt (6:427) also proposes a four-stage cycle, but he maintains that the firm possesses some control over the life of certain products: By modifying those products the firm may extend their life, and shown in Figure 2-3.

Staudt, Taylor, and Bowersox (11:222) view the product life cycle as consisting of five stages: pioneering, market acceptance, turbulence, saturation, and obsolescence. Their concept is illustrated in Figure 2-4.

Smallwood (10:29) accepts this five-step general structure but, similar to McCarthy, uses other titles for the stages: introduction, growth, maturity, decline, and termination.



Figure 2-3.--Levitt; Hypothetical Life Cycle--Nylon.



Figure 2-4.--Staudt, Taylor, and Bowersox; Stages of Market Development.

Smallwood's most notable contribution is his measurement units of the ordinate (Y) axis. While others label and plot some product sales performance measurement, such as number of units sold, dollar of sales, and so forth, Smallwood plots a saturation measurement based upon the degree of potential saturation attained (10:30). The potential is determined from an estimate of all U.S. households. Figure 2-5 illustrates Smallwood's ideas.



Figure 2-5.--Smallwood; Life Cycle Stages of Various Products.

Patton (8:9), Polli and Cook (9:385), and others also have studied and tested the product life cycle concept. Most of these authors agree that the concept provides a viable framework for the planning and implementation of the marketing strategy.

### The Learning Curve

Strauss and Sayles (12:211) have proposed the hypothetical learning curve (shown in Figure 2-6) as a means to explain how new skills are learned.



Figure 2-6.--Strauss and Sayles; Learning Curve.

An employee's learning curve can be conceptualized as consisting of five stages or periods. In the first, or discouraging stage, he begins to learn a new job or skill. He often proves quite inept and can become very discouraged. This stage may last a few minutes or several weeks, but it is invariably a function of the complexity and newness to the employee of the skill being learned.

The second stage is one of increasing returns, and the learning rate is exceedingly rapid. At this point, a little practice on the employee's part is rewarded by substantial increases in job proficiency; job-satisfaction and confidence rise at a marked rate.

The third stage is the false plateau period. The employee continues to allocate additional time to learning, but it does not result in significant increases in job proficiency. The employee and the employer may conclude that maximum development has been attained. This false conclusion could lead both to decide prematurely that suspension or reduction of the development program is in order.

The fourth stage, peak proficiency, occurs when the employee, through continued practice, makes the breakthrough. Separate parts of the job become merged into a single, coordinated performance sequence, and the employee develops a high measure of selfassurance and confidence. The employer may assume that the goal of peak performance has been achieved and additional time for development is no longer required. Such is not the case.

The fifth stage, the overlearning period, consists of repetition and practice of skills already learned. This over learning greatly diminishes the likelihood that the skills will be forgotten. The skills become so deeply ingrained that the

employee will not have to "rethink" the process each time the task is performed.

Yoder (13:336) states that many employers have learned to appreciate the economics of the learning curve. These employers realize that as the individual employee progresses along his learning curve and as the composite curve of all employees improves, less effort, time, and energy is required to produce a unit. Employee output tends to increase, and unit costs tend to decline. The concept of productivity is not new, but the learning curve concept has the advantage of stating employee development in more precise terms and of generating a formula (model) for the process. Yoder (13:337) maintains that "the curve is a kind of concrete, tangible evidence of the economic payoff for training. It talks about the benefits to be obtained through 'development' of human resources in the [economic] language many managers understand best."

### The Product Life Cycle/Learning Curve Relationship

The product life cycle models discussed previously all have as their starting point the introduction of the product into the market. No authors take great interest in the development and/or application of the model prior to product introduction. Research into this phase might provide additional insight into the development of the firm's marketing strategy PRIOR to market introduction. Of the authors cited, only Levitt (6:427) touches

on this matter. He focuses on the product life cycle in its latter stages, but maintains that management initiative early in the process can positively effect the shape of that curve. He urges planning at the very outset, a series of actions for subsequent stages to ensure a product's sales and profit curves are constantly sustained rather than allowed to decline. In other words, advance planning should be directed at extending, or stretching out, the life of the product. This idea of planning in advance has great potential as an instrument of long-term product strategy (6:427).

Unlike Levitt's treatment of the latter stages of the product life cycle curve, Strauss and Sayles do not address the issue of extending or stretching out the learning curve. The inability to modify and/or extend this curve poses serious problems for personnel management (4:17-25). However, this inability may be overcome if certain marketing concepts are used to provide additional insight into the learning curve process. In particular, the application of the extension of the product life cycle idea can effectively improve employee training and development.

#### Application

The product life cycle concept and many related ideas, such as the portfolio concept, can be applied to the personnel management area, including the areas of employee training and development. For our purposes, we will discuss and demonstrate their application to the extension of the learning curve. Such

application can be represented graphically by combining and integrating the relevant elements of Figure 2-3 into Figure 2-6. The result is shown in Figure 2-7.



Figure 2-7.--Extension of the Learning Curve.

Recall that in the fifth (overlearning) stage, learned skills have become so ingrained that the employee does not need to "rethink" the process. This is fine when the process does not change over long periods. But what happens when conditions change, as they usually do? The relevant question for the personnel practitioner is: does something occur after the fifth period? If so, does management have any control over what happens and how? This is where the product life cycle can be useful. Assume that the employee's job proficiency is such that he has reached period five, the overlearning stage. Assume that the process surrounding the job begins to change, which is likely to occur in the real world. Through neglect or by conscious decision, management may take no action concerning the employee's level of training and development. Job proficiency would begin to decline as would the learning curve. This trend would continue until the necessary action was taken to reverse it.

This decline need not occur. If Levitt's suggestion (6:427) is applied to personnel management, prior planning of a strategy to provide the employee with the necessary training and development could "entend" the fourth stage, the period of peak proficiency.

#### Utilization

Let us demonstrate how this extended model of the learning curve, as shown in Figure 2-7, may be utilized by the practitioner in the day-to-day operation of the personnel function. Assume that the practitioner has long ago recognized that change in the process is inevitable and continuous. Simular to the marketing manager, he must plan an employee training and development strategy far in advance of implementation. Perhaps when an employee is first hired a training and development program should be established and revised periodically to assure that his skills are updated and his proficiency maintained in keeping with anticipated technological and other changes.

As the employee's proficiency level rises through the fourth (peak proficiency) stage, the employee's training and development program must be further oriented toward the inclusion of the newer job requirement changes. Rather than permit the employee to enter the overlearning stage and the eventual reduction of proficiency level, his training and development program is periodically revised to include this required new knowledge. The employee's total proficiency level will rise to the next higher level. The process of training and development on the newly required job skills is repeated thus allowing the employee's proficiency level to rise in a stair-step fashion as shown in Figure 2-7, steps 1,2,3, and 4. By the application of the product life cycle extension concept the practitioner can utilize the learning curve extension to identify the need for additional levels of employee training and development and to develop the training strategy in advance for implementation at the appropriate time.

#### Insight

The product life cycle concept enriches the learning curve idea in two significant ways. First, something can happen during the fifth stage of the learning curve: The employee's job proficiency can fall. Second, and more important, management can exercise a high degree of control over what happens and the direction those events take. In other words, management need not

be an idle bystander and observer; it can actively do something about the shape of the learning curve and the employee's level of proficiency.

In the fifth (overlearning) stage of the learning curve, changing job requirements tend to require higher proficiency levels. The unchanging skills of the employee continue to be applied to the changing job in a routine and unthinking manner. Job proficiency falls with the situation eventually becoming one of employee productivity below acceptable levels with job dissatisfaction perhaps resulting in the loss of a long-time and trainable employee.

But the learning curve model as shown in Figure 2-6 need not be accepted without recourse. The practitioner can affect the time dimension of the learning curve by increasing or decreasing the frequency of the training sessions and work repetition. Affecting the level of proficiency can be accomplished by the level of training and job experience.

But the important contribution of the integration of the product life cycle extension concept with the learning curve concept is the insight for planning the training strategy that results.

## Effectiveness

We might best demonstrate the richness gained from combining the learning curve and product life cycle concepts by

examining the effect of this "hybrid" upon the personnel concepts of job enlargement and/or job enrichment.

The quality of life has long been a proper concern of marketers, while the quality of the work life and productivity have been primary concerns of personnel administrators (3:281). Most behavioral scientists regard the extreme division of labor in many areas of industrial society and the resulting job simplification and specialization as leading almost inevitably to monotony, job dissatisfaction, and decreased performance (3:289). To combat this problem, many personnel practitioners have relied on job enrichment and/or job enlargement programs. The latter basically entails a horizontal expansion of the employee's tasks, although without any greater planning and control responsibilities, the idea being to reverse the job simplificationspecialization trend. The intent is to provide the employee with a more varied work life and thereby create greater job satisfaction and a higher performance level. Job enrichment is basically the addition of vertical tasks. Jobs are redefined or restructured so that the employee has greater planning and control responsibilities in the execution of his overall assignment (3:288). This method seeks to make the task intrinsically reinforcing. The enriched job is supposed to lead to higher levels of performance because it produces positive rewards. Job enrichment as currently practiced in industry is a direct outgrowth of Frederick Herzberg's two-factor theory of

motivation. The assumption is that, in order to motivate personnel, the job itself must provide opportunities for achievement, recognition, responsibility, advancement, and growth (3:289).

But job enlargement and job enrichment programs cannot be thrust upon an employee who is insufficiently trained in accepting and/or performing these additional responsibilities and/or tasks. The personnel practitioner must recognize that employees cannot be allowed to reach the fifth or overlearning period and then be ignored. Employees must be trained to ever-increasing levels of job proficiency through continual extension of the fourth stage, the peak proficiency period of the learning curve. It is this application of the product life cycle concept that can increase the effectiveness of the learning curve.

# The Place/Motivation and Compensation Relationship

In Marketing, our knowledge of channels of distribution, that is, the institutions, control mechanisms, types of leadership, and activities and functions performed by middlemen in marketing channels, has grown at a rapid rate over the last two decades. In contrast, our knowledge of the "channels of distribution" in the field of personnel management remain relatively unexplored and untested. We know, for example, that the recognized union is one institution in the channel, that it exhibits varying degrees of control within the channel, and that it may well serve in the role of channel captain. Relatively little is known about the union's role as middleman. Unions are reluctant to share information about their activities, functions, and societal role. It is thus difficult, if not impossible, to study the union's role in personnel channels. Other aspects of the channels of distribution in the personnel field are also unexplored. If it can be demonstrated that certain marketing concepts can be applied to the distribution functions of the personnel program, the personnel practitioner may gain considerable insight and increase his effectiveness. One fruitful area of comparison is the payofftolerance control function and its relationship to employee job satisfaction.

#### The Payoff-Tolerance Function

In 1973, Louis Bucklin (1:39-47) proposed a model of marketing channel control theory to explain channel processes and improve strategies for attaining channel coordination. His model is illustrated in Figure 2-8.

In Figure 2-8, the vertical axis represents profit earned by the middleman from doing business with the supplier. The horizontal axis measures the supplier's authority continuum; authority increases as one moves to the right. The two curves shown are the payoff and the tolerance functions. The former defines the profits that accrue to the middleman from accepting various levels of supplier authority. As the middleman accepts additional levels of supplier authority, his profits tend to <u>decline</u>. The tolerance function defines the burdens and sacrifices the middleman incurs


Figure 2-8.--Bucklin; The Limits to Authority, A, in a Distribution Channel, Supplier's View.

from acceding to various levels of supplier authority. Initially, the curve may be relatively flat, but at some point it begins to rise steeply, reflecting the middleman's demand for higher profits in exchange for accepting greater levels of supplier control. The tolerance function, in effect, is a measure of the middleman's perceived satisfaction with the supplier's authority. The higher the level of authority, the lower the middleman's "job" satisfaction with the relationship.

The intersection of the two functions determines the upper limits of the supplier's authority level (point A in Figure 2-8). At that point the middleman perceives his sacrifices as being exactly balanced by the profits he receives. In the zone of acceptance, the payoff function exceeds the tolerance function. The middleman will accept the level of the supplier's authority and be satisfied with the relationship. Beyond point A, the tolerance function exceeds the payoff function, and the middleman is unwilling to accept the relationship.

Bucklin has further refined his control theory model, as shown in Figure 2-9.



Figure 2-9.--Bucklin; Control in Distribution: the Role of Persuasion, Authority, and Coercion.

This model recognizes a certain "gray" area: The supplier may coerce the middleman into compliance through the application of increased levels of supplier control. But this compliance is often short lived, and the relationship may be terminated. The dissatisfaction of one party or the other with this situation becomes the force necessary to reestablish the balance.

Adel El-Ansary and Robert Robicheaux (2:2-7) have refined the Bucklin model to include a payoff-tolerance function for both the middleman and the supplier. This is shown in Figure 2-10.



Figure 2-10.--El-Ansary and Robicheaux; A Revised Model of Channel Relations.

Together, these four functions ( $P_m$ ,  $T_m$ ,  $P_s$ , and  $T_s$ ) identify the absolute limits of supplier and middleman control as well as the range of supplier control within which the two parties would "bargain." In Figure 2-10, the range of tolerance functions lies within the area  $C_0$  and  $C_4$ , the former the absolute minimum and the latter the absolute maximum level of supplier control tolerated by the supplier and middleman, respectively. The supplier's payoff function  $(P_s)$  falls below his tolerance function at any level of supplier control less than  $C_1$ . The supplier will not bargain within the range of supplier control less than  $C_1$ . The middleman's payoff function  $(P_m)$  falls below his tolerance function above  $C_3$ . He thus is unwilling to accept any level of supplier control above C₃. The relevant bargaining range of supplier control is between  $C_1$  and  $C_3$ . Within this range, each party is relatively satisfied with the relationship and will continue to bargain in an attempt to improve his profit position (establish the relationship at the maximum point on his payoff curve). When the relationship is established below C1, the supplier would be expected to be dissatisfied with the relationship; he would bargain for a new relationship or terminate the existing one. Likewise, when the relationship is established above  $C_3$ , the middleman would be expected to be dissatisfied and to bargain for a new relationship or withdraw from the present one.

#### Job Satisfaction

Underlying many early articles on job satisfaction was the conviction that "happy workers are productive workers," but this attitude has become less common. Today, many organizational psychologists are studying job satisfaction not to determine its effect but to determine its basic causes. The recent interest in the subject is closely related to the rising concern in many countries for the quality of life. There is increasing acceptance of the view that material possessions and economic growth do not necessarily produce a high quality of life. Recognition is now being given to the importance of the kinds of affective reactions that people experience and to the fact that these are not always tied to economic or material accomplishments. Job satisfaction is one measure of the quality of life. What happens to people during the work day has profound effects on the individual employee's life and on society as a whole. Furthermore, job satisfaction is related to absenteeism and turnover, both of which are very costly to organizations. Thus, there is a very practical economic reason for organizations to be concerned with job satisfaction, since it can influence organizational effectiveness (5:329-330).

E. E. Lawler (5:331) lists four approaches to the theoretical work on satisfaction: (1) fulfillment theory,
(2) discrepancy theory, (3) equity theory, and (4) two-factor theory.

Fulfillment Theory

Fulfillment theory, which was the first approach to develop, argues that job satisfaction varies directly with the extent to which an individual's needs which can be satisfied are satisfied. Researchers in fulfillment theory measure people's satisfaction by simply asking how much of a certain outcome they have received (5:331). Fulfillment theory may be plotted graphically, as is done in Figure 2-11. As receipts increase from  $R_1$  to  $R_2$ , satisfaction increases in some proportion from  $S_1$  to  $S_2$ .



Figure 2-11.--Fulfillment Theory.

## Discrepancy Theory

Discrepancy theory maintains that satisfaction is measured by the difference between the actual outcomes a person receives and some other outcome level. The theories differ widely in their definitions of this other level. Some maintain it is the outcome level the person feels <u>should be</u> received, others that it is the level the person <u>expects</u> to receive. But all these approaches agree about the comparative aspect and that when received outcome is below the other level, dissatisfaction results (5:331).

Discrepancy theory is illustrated by the graph in Figure 2-12. If expected outcome is as  $0_2$  and receipts are at  $R_2$ , line ABC defines the boundary between satisfaction and dissatisfaction. When expectations are at  $0_1$  and receipts are above  $R_1$  (point A), such as A', the person experiences satisfaction. If expected outcome is at  $0_3$  and receipts are below  $R_3$  (point C), such as C', then the person is dissatisfied.



Should Be or Expected Outcome

Figure 2-12.--Discrepancy Theory.

Equity Theory

Equity theory, as was discrepancy theory, was developed later than fulfillment theory and partially in response to its shortcomings. Although primarily a motivation theory, the equity approach has some important things to say about the causes of satisfaction and dissatisfaction. The essence of the argument revolves around each person's perceived input-outcome balance. When an individual perceives that his rewards are equitable in terms of what he has expended to obtain them, he is satisfied. When he perceives inequity, he is dissatisfied. Underreward, which leads to feelings of unfair treatment, or overreward, which leads to feelings of guilt, can lead to dissatisfaction (3:331).

Equity theory is represented by a simple graph in Figure 2-13. If a person's input lies within the satisfaction range, say at point B along ABC, input  $I_2$  is in proper balance with outcome  $0_2$ , and the person is satisfied. However, if the input lies at point C' along outcome level  $0_2$ C', the person perceives input  $I_3$  to be in relative excess to outcome  $0_2$  and is dissatisfied because he feels unfairly treated. He will attempt to increase the outcome level to  $0_3$  (point C) or to reduce the input level to  $I_2$  (point B) to achieve an equitable balance, or satisfaction. When input is reduced to  $I_1$  and outcome remains at  $0_2$  (point A'), the person perceives the outcome to be in relative excess to input  $I_1$ . He is dissatisfied due to guilt feelings and may attempt to increase his input to  $I_2$  (point B) or to reduce the

outcome level to  $0_1$  (point A) to reestablish the equity/satisfaction level.



Figure 2-13.--Equity Theory.

## Two-Factor Theory

Two-factor theory attempts to develop a completely new approach to satisfaction. Originally developed by Herzberg et al., it has two interesting theses. First, satisfaction and dissatisfaction do not exist on a continuum running from satisfaction through neutral to dissatisfaction. Rather, there are two independent continua, one running from satisfied to neutral, another running from dissatisfied to neutral. Second, different job facets influence feelings of satisfaction and dissatisfaction. Factors such as recognition, achievement, work itself, responsibility, and advancement are connected to satisfying experiences. Company policy and administration, supervision, salary, interpersonal relations, and working conditions are connected with dissatisfying experiences. Perhaps the most interesting aspect of two-factor theory is that a person can be very satisfied and very dissatisfied at the same time (3:332).

Figure 2-14 is a graph representing two-factor theory. Employee A experiences a level of satisfaction of  $OS_1$  and a dissatisfaction level of  $OD_1$ . Employee B experiences a satisfaction level of  $OS_2$  and a dissatisfaction level of  $OD_2$ . Employee C experiences a satisfaction level of  $OS_3$  and a dissatisfaction level of neutral.



Figure 2-14.--Two-Factor Theory.

Absenteeism and Turnover

Job turnover and absenteeism are closely related to job satisfaction. Studies have consistently shown that dissatisfied workers are more likely than satisfied workers to terminate employment; thus, satisfaction scores can predict turnover. The relationship between satisfaction and absenteeism seems to be even stronger than that between satisfaction and turnover. Studies found that voluntary absences are closely related to dissatisfaction (5:336-337).

Absenteeism and turnover have a very direct influence on organizational effectiveness. Absenteeism is very costly because it interrupts scheduling, creates a need for overstaffing, increases fringe-benefit costs, and so on. Turnover is expensive because of the many costs incurred in recruiting, selecting, and training replacement employees (5:337). Obviously, these problems can be serious ones for management. The question is, can anything be done to combat them? Research suggests that satisfaction is very much influenced by the actual rewards a person receives. Although not all people will react to the same reward level in the same manner, reactions are predictable if something is known about how people perceive their inputs. The implication is that organizations can influence employees' satisfaction levels (5:337). How this can be done will be discussed in detail in the next section.

## The Payoff-Tolerance/Job Satisfaction Relationship

We have discussed two marketing models of the payofftolerance function concept which relate to the supplier-middleman relationship. We also have discussed four personnel management models dealing with the concept of job satisfaction: The fulfillment, discrepancy, equity, and two-factor theories. The marketing conceptual models can be integrated into these personnel concepts to increase the effectiveness of the personnel management operation.

### Application

For the sake of simplicity our attention will focus on the application of Bucklin's refined model of the payoff-tolerance function (shown in Figure 2-9) to the equity theory of job satisfaction (shown in Figure 2-13). When these two are integrated, the result is the graph shown in Figure 2-15.

In this model, input is defined as the time, skill, and effort which the employer demands of and receives from the employee. Outcome consists of the wages, benefits, and working conditions which the employer supplies the employee in exchange for his input. The employee experiences job dissatisfaction when the input-outcome ratio lies above line BD or falls below line AC, in figure 2-15. He experiences job satisfaction when the ratio falls in the range between lines BD and AC, the satisfaction-tolerance range. The principal advantage of combining the equity and payoff-tolerance



Figure 2-15.--Satisfaction-Tolerance Range.

models is to broaden the range of the satisfaction function in equity theory (from a single line ABC in Figure 2-13 to the area ABDC in Figure 2-15). Such an extension leads to several possibilities in the utilization of the model.

## Utilization

How may the revised equity/payoff-tolerance model be utilized in day-to-day personnel operations? By recognizing that satisfaction conceptually may occur within a range rather than along a single line, the practitioner can think of employees in a more flexible manner. An employee is no longer simply satisfied or dissatisfied with the results of the input-outcome ratio; there is now a multitude of ratios which can satisfy him. The employer,

in determining the duties, responsibilities, and specifications of the job description (the input demanded) is no longer faced with trying to determine the specific combination of these which will result in employee job satisfaction. Rather, he may choose from among a number or a range of outcomes to obtain the same end. In other words, the employee possesses a tolerance range similar to that of the middleman. The satisfaction-tolerance range might well determine the wage range for a given class of employees. For example, assume the level of input demanded by the employer for the job to be  $I_1$ . The minimum or starting rate (outcome) might be established at  $0_1$  (point A), the maximum rate at  $0_2$  (point B). To set the minimum rate below point A would result in employee job dissatisfaction due to feelings of unfair treatment. To establish the maximum above point B would result in dissatisfaction due to feelings of guilt. Within the tolerance range AB, the employee would be receiving an "acceptable" outcome from the transaction and would therefore be satisfied with the relationship. If input  $I_2$  is demanded by the employer, then point C establishes the minimum and point D the maximum rate.

The model depicted in Figure 2-15 also might be utilized by the personnel practitioner when engaged in collective bargaining with a certified employee union. Let us assume that the lowest level job held by a union member requires input  $I_1$ , the highest level job input  $I_2$ . In Figure 2-16, line AC is the minimum boundary for wage settlements, line BD the maximum boundary.



Figure 2-16.--Area of Acceptable Settlement.

Area ABDC delimits the area of acceptable settlement. Eight wage rate ranges for various classes of employees which require various levels of inputs then can be readily established.

Insight

Just as middlemen exhibit a range of tolerance based upon the ratio of or degree of balance between the control exercised by the supplier and the payoff (profits) received, so, too, does the employee exhibit a satisfaction-tolerance range based upon the input-outcome ratio or balance. The application and utilization of the payoff-tolerance function to equity theory opens up several new dimensions. First, it gives the personnel practitioner a way to apportion input demands (as determined by the job description) across a broad range. Second, at each determined value of input, I, there is not only one single outcome, but a range of outcomes which will provide job satisfaction to the employee. Third, at each outcome a multitude of inputs can be demanded and the employee still will experience job satisfaction.

Examining Figure 2-15, it may be observed that at outcome  $0_{2}$  employee job satisfaction can be obtained at any input level between B and C (Between  $I_1$  and  $I_2$ ). At outcome  $O_2$  there thus exists as input "zone of bargaining" from point B to point C where job satisfaction is experienced by the employee. Conversely, at input  $I_1$ , for example, employee job satisfaction can be obtained at any outcome level between A and B (between  $0_1$  and  $0_2$ ). Consequently, at input level  $I_1$  is an outcome "zone of bargaining" from point A to point B. Let us assume that (1) A represents the employer's minimum acceptable input level demanded and the employee's minimum acceptable outcome (wage rate) for this input, (2) B is the maximum outcome (wage rate) the employer is willing to pay at this minimum level of input, (3) D is the employer's maximum level of input demanded and maximum outcome (wage rate) he is willing to pay, and (4) C is the minimum level of outcome the employee is willing to accept at this maximum level of input. This "mini-max" situation establishes the total "zone of bargaining" for this particular situation, represented by the area ABDC. This

zone establishes the combinations of input demanded by the employer and supplied by the employee and the combinations of outcome demanded by the employee and supplied by the employer. In this zone the marketing transaction between the buyer and the seller is established.

In the equity theory model shown in Figure 2-13, each input demanded and supplied has its own unique outcome, and each outcome has its own unique input. In the model shown in Figure 2-15, this restriction is lifted. Each input has a number of possible outcome levels, and each outcome a number of possible input levels. It is this new dimension that can increase the effectiveness of the personnel program.

## Effectiveness

A personnel practitioner using the standard equity theory model (Figure 2-13) identifies the level of input demanded, establishes the satisfaction curve, and determines the outcome level which provides the employee job satisfaction. No zone of bargaining is available, and no management decisions need be made. However, with the revised model (Figure 2-15) there is a zone of bargaining, and management decision making becomes necessary in controlling both the efficiency and effectiveness of the personnel program.

Referring once more to Figure 2-15, recall that BD establishes the maximum boundary of the outcomes acceptable to both employer and employee for the inputs demanded, and AC establishes the minimum outcome acceptable to both. Recall that this is the "zone of bargaining." Efficiency and effectiveness depend upon the agreement between employer and employee (buyer and seller) falling within this zone.

Figure 2-17 modifies Figure 2-14 to show two possible transactions,  $T_1$  and  $T_2$ , taking place.



Figure 2-17.--Zone of Bargaining--Area ABDC.

 $T_1$  and  $T_2$  both require the same input level,  $I_T$ , but  $T_1$  requires outcome  $0_{T_1}$ , while  $T_2$  requires outcome  $0_{T_2}$ . Therefore, transaction  $T_2$  requires a higher outcome than does  $T_1$ ; is therefore the more costly and the less efficient of the two. The effectiveness of the two transactions, however, is identical; both fall within the zone of bargaining, the range acceptable to both parties.

Figure 2-17 illustrates another set of possible transactions,  $T_1$  and  $T_3$ . Both require the same input level,  $I_T$ ;  $T_1$ requires outcome  $0_{T_1}$ , while  $T_3$  requires a lower outcome,  $0_{T_3}$ . Consequently,  $T_3$  is the least costly and the more efficient of the two. (The same relationship exists between transaction  $T_2$  and  $T_3$ .) Unlike the  $T_1$  and  $T_2$  relationship,  $T_3$  falls outside (below) the satisfaction zone of bargaining.  $T_3$  is not effective because it does not achieve the satisfaction goal.

The personnel practitioner must make management decisions and negotiate transactions within the boundaries of the zone of bargaining. If the input demanded were at the  $I_T$  level, the practitioner would negotiate the outcome level at some point between  $T_1$  and  $T_2$ . His perference would be  $T_1$ , thus obtaining an effective relationship at the most efficient cost level. Finding himself at the  $T_3$  position, the practitioner would continue to bargain at least up to the  $T_1$  position. Although the movement from  $T_3$  to  $T_1$  would increase the outcome payments required of the employer, the practitioner would be willing to tradeoff efficiency for effectiveness at the  $T_1$  position, qualities the  $T_3$  position does not possess.

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## CHAPTER III

## RESEARCH DESIGN

Chapter I set forth the framework and parameters of this study. Chapter II developed the normalized matrix model to describe the relationships between various marketing concepts and personnel management operational functions. To measure the operational extent of these relationships, a research program is necessary, and this program is the subject of this chapter.

### Objective of the Study

As stated in Chapter I, the research objective of this study is to measure four aspects: (1) which marketing concepts are perceived by practitioners to be applicable to personnel management; (2) which marketing concepts are utilized by practitioners in daily personnel operations; (3) which marketing concepts provide the practitioner with additional insight into everyday personnel operations; and (4) which marketing concepts increase the effectiveness of that function.

## Sampling

#### The Relevant Population

In a broad sense, the population for this study might well include any organization, profit or nonprofit, which performs a

personnel function. Obviously, so many thousands of organizations cannot be sampled readily. It is necessary to limit the number to a manageable proportion. Therefore, our population consists of those Michigan public colleges and universities with four-year undergraduate programs and personnel efforts which entail, as a minimum, the functions of recruitment and selection, training and development, motivation and compensation, and labor relations.

## Sample Selection

Even with this restriction it is impossible within our limited space to survey this entire population adequately. Since cooperation in completing the questionnaire designed for this study is essential, the sample was limited to a group of institutions which expressed a willingness to do so.

### Sample Size

Our sample consists of twelve Michigan colleges and universities which are members of the Michigan College and University Personnel Association (MICUPA). Each institution possesses an identifiable centralized personnal office. Each has one or more recognized staff employee unions, and six have a recognized faculty employee union. Each receives state tax appropriations. Each performs the functions of recruitment and selection, training and development, motivation and compensation, and labor relations. The twelve institutions are: Central Michigan University; Eastern Michigan University; Ferris State College; Grand Valley State College; Lake Superior State College; Michigan State University; Michigan Technological University; Northern Michigan University; Oakland University; University of Michigan; Wayne State University; and Western Michigan University.

### Scaling

## Likert Summated Scale

The Likert method of summated ratings (under a different name) was first proposed by Rensis Likert in 1932 (6:270). This is the most frequently used scale (2:248). It consists of a number of statements which express a range of favorable or unfavorable attitudes toward a subject. The response to each item is given a numerical score to reflect its degree of attitude favorableness, and the scores are totaled to measure the respondent's attitude. The respondent is asked to rate each statement in terms of five degrees of agreement (3-point and 7-point scales are also used). A typical scoring range for a Likert-type scale is shown in Table 3-1. Scoring values normally are not printed on the instrument (2:248).

The Likert summated scale has undergone modifications since its introduction. Kenneth Uhl and Bertram Schoner state that the first step in applying the method as it often is used today is to derive a list of statements concerning a particular subject. The respondent is then asked to express his degree of agreement or disagreement, typically on a 5-point scale. As shown in Table 3-2,

TABLE	3-1.	Scoring	a	Likert-Type	Scale.
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Response	Points
Strongly Agree	1
Agree	2
Undecided	3
Disagree	4
Strongly Disagree	5

TABLE 3-2.--Modified Scoring for a Likert-Type Scale.

Response	Points
Strongly Agree	+2
Agree	+1
Uncertain	0
Disagree	-1
Strongly Disagree	-2

scoring today differ's somewhat from the original methods. Weights generally are assigned to responses, positive ones to favorable attitudes, and negative ones to unfavorable attitudes (6:270).

Paul Green and Donald Tull (3:196-7) have described the procedure for a Likert summated scale: (1) The test items are classified a priori as "favorable" or "unfavorable." No attempt is made to find a distribution of test items over the range of the attitude being studied, and no attempt is made to scale items. A pretest is then conducted. (2) In the pretest, the subject indicates approval or disapproval with every item, checking one of the descriptors: strongly approve; approve; undecided; disapprove; strongly disapprove. (3) Each response is given a numerical weight (for example, +2, +1, 0, -1, -2). (4) The individual's score represents the algebraic summation of weights associated with each item checked. In the scoring process, weights are assigned such that the direction of attitude--favorable to unfavorable--is consistent over items. For example, if a +2 is assigned to "strongly approve" for favorable items, a +2 should be assigned to "strongly disapprove" for unfavorable items. (5) Basing his judgments upon the results of the pretest, the analyst selects only those items that appear to discriminate "best" between high and low scores. This may be done by examining the test scores for each item (using scores for only the highest and lowest quartiles of subjects on the overall test) and comparing mean differences over each item. (6) The items finally selected are

those that have discriminated "best" among high versus low total scores. (7) Steps 2 through 4 are repeated in the main study.

There are disadvantages to the Likert scale. A single subject's score, unless it is extreme, is meaningless except in relation to scores of others. That is, there is no natural origin in the scale. This is not a serious problem if the attitudes of two groups are to be compared or if changes in attitude after some experimental treatment are of interest (6:271).

Although Likert scales are employed to compare mean attitudes between groups, it is not clear that this procedure is justified. The mean is useless without cardinal measurement. This objection can be overcome, however, by using the median rather than the mean in any comparison of groups (6:271).

The Likert scale is ordinal only. The Likert scale can determine that respondents are more or less favorable to a topic, but not to what degree. Another potential problem is that the total score may be derived from a wide variety of response patterns, which calls the meaning of the total score into question (2:250).

For the purposes of this study, we will employ a Likerttype summated scale basically following the seven steps suggested by Green and Tull (3:196-7) with some minor modification due to our desire to measure the operational usefulness of the application of marketing concepts to personnel management rather than the rating of individuals within the sample group.

The principal advantage of the Likert summated rating method is that it eliminates the need for a judging group (6:270). Another advantage is that subjects, in being permitted to express degrees of agreement or disagreement, find it relatively easy to respond. In contrast, methods that require a simple either/or response create problems for subjects who may be in partial but not complete agreement with a statement (6:271).

Likert-type scales also are relatively easy to develop and quick to construct. Each item that is included has met an empirical test for discriminating ability. Since respondents answer each item, it is probably more reliable than the Thurstone scale, and it provides a greater volume of data than does that scale (2:249-250). The Likert summated scale is simpler to use than the Thurstone if the main purpose is only to rank respondents along the attitudinal continuum under study (3:197).

#### Data Collection

To measure the operational usefulness of each of the four elements--application, utilization, insight, and effectiveness-and four marketing variables--product, promotion, place, and price--which are of interest to this study, a questionnaire was constructed. It consisted of 160 statements regarding practitioners' present personnel operations, policies, procedures, and methods. Practitioners were asked to indicate the extent of their agreement or disagreement with each statement by marking their answer on a Likert-type scale. The answers provide a measure of the operational extent to which marketing concepts are applied and utilized, of the insight provided, and of the effectiveness of such marketing concepts in the area of personnel management.

## Questionnaire Design

The questionnaire consisted of ten statements devoted to each of the sixteen matrix relationships indicated in Table 3-3. This brought the total number of items to 160.

	Application	Utilization	Insight	Effectiveness
Product	X	X	Х	Х
Promotion	X	X	X	x
Place	X	Х	Х	Х
Price	X	X	X	X

TABLE 3-3.--Hypotheses Matrix.

## Questionnaire Preparation

For each of the four P's, ten marketing concepts were identified as being appropriate for application and utilization in personnel management and as offering increased insight and effectiveness in the day-to-day operation of the personnel function. These marketing concepts selected are shown in Table 3-4.

For each of the forty marketing concepts selected as relevant to personnel management, four statements were structured: one on TABLE 3-4.--Marketing Concepts Appropriate to Personnel Management.

Product Concepts:

Total product Tangible and intangible aspects of the product Exchange (tranaction-barter) Product design Product life cycle Portfolio concept Branding--assurance of quality Branding--identification Packaging--appearance Packaging--protection

Promotion Concepts:

Communications--two-way model Management information system Kinds of sales presentations--selling-formula theory Kinds of sales presentations--need-satisfaction theory Mass advertising Advertising--to inform Advertising--to persuade Media selection Personal selling--qualifying the prospect Market segmentation

Place Concepts:

Total systems concept Payoff-tolerance function Physical distribution Middlemen, the union as the Middlemen, functions performed Direct or indirect channels Channel leadership--the union as the channel captain Pushing and pulling through the channels Product-market committment Time and space utility

Price Concepts:

Price versus nonprice competition List price Discounts and allowances Functional discounts Quantity discounts Unit pricing Turnover (stockturn) rate Full-line pricing Penetration pricing Skimming pricing application, one on utilization, one on insight, and one on effectiveness. All 160 statements were drafted in such a manner that "strongly agree" would yield the highest score. The statements were numbered sequentially from one through 160. Each statement was written on a 4" X 6" card and the cards numbered to correspond with the statement number. The cards were hand shuffled to scramble the sequence. After shuffling, the cards were numbered from one through 160 to determine their placement on the questionnaire. In this manner, the statements were randomly scrambled to prevent practitioners from responding on an "expected answer" basis and to encourage them to base answers on actual operational experience.

### Questionnaire Pretest

A preliminary questionnaire was presented to five individuals to pretest it and to obtain their comments and suggestions for improvement. Four of those participating in the pretest are employees of Michigan State University: La Mott Bates, Associate Director, Personnel Administration; Thomas Dutch, Personnel Administrator, Housing and Food Service; George Fritz, Manager, Kellogg Center; and Stanley Hecker, Administrative Assistant, Physical Plant. The fifth was Terry Stoner, Assistant Director, Personnel, Central Michigan University.

Each individual completed a preliminary questionnaire by circling the appropriate symbol following each statement: SA (strongly agree), A (agree), U (uncertain or undecided), D (disagree), and SD (strongly disagree). Each respondent also indicated which

statements he thought were unclear, so generalized that answering was difficult, required clarification of terminology, or needed rephrasing. Based on these reviews and further deliberation by the researcher, certain statements were modified and a revised questionnaire prepared.

#### Questionnaire Completion

Copies of the revised questionnaire and an instruction sheet were prepared. A list of the names, titles, addresses, and phone numbers of twelve potential respondents was made from the membership list of the Michigan College and University Personnel Association (MICUPA), and the principal personnel operational officer within each organization was identified. Potential respondents were contacted by telephone to request their participation in the study and their cooperation in completing a questionnaire. All twelve agreed to participate. A questionnaire, instruction sheet, covering letter, and self-addressed stamped envelope was sent to the following respondents; Rosemary Alland, Director of Personnel, Grand Valley State College; William H. Clark, Director of Personnel, Northern Michigan University; John B. Coyle, Director of Personnel, Oakland University; A. Wayne Douglas, Director of Personnel, Eastern Michigan University; Jeffrey A. Evans, Director of Personnel, Central Michigan University; Kenneth F. Gallagher, Director of Personnel, Ferris State College; John R. Gooch, Director of Personnel, Michigan Technological University; Soja B. Jemison, Director of Employee Relations, Lake Superior State College;

Stanley Kelley, Director of Personnel, Western Michigan University; Gerald O'Connor, Director of Personnel Administration, Michigan State University; J. Thomas Priemer, Associate Director of Personnel, Wayne State University; Russell W. Reister, Director of Personnel, University of Michigan; and all questionnaires were completed and returned.

Respondents are identified only by random number throughout the remainder of this study to abide by our agreement not to divulge an individual institution's sensitive data.

### Data Recording

Items on the completed questionnaires were "unscrambled" by referring to a questionnaire statement cross-reference numbering chart, shown in Table 3-5. Answers were recorded on a scoring form ranging from Strongly Agreed (one) to Strongly Disagree (five). The form is shown in Table 3-6.

Weights, as shown in Table 3-7 were assigned to each response.

#### Individual Data Recording

The respondents answers as shown in Table 3-6, were multiplied by the assigned weight as shown in Table 3-7 to determine the weight score for each answer for each statement. The 12 weighted scores for each answer for each statement are added horizontally to obtain the total weighted score for each statement and divided by the number of respondents (12) to obtain a total mean score for each statement. This is shown in Table 3-8.

Questionnaire Statement Number	Statement Number
1	110
2	134
3	108
4	125
5	126
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	
156	58
157	157
158	137
159	148
160	10

TABLE 3-5.--Questionnaire Statement Cross-Reference Numbering Chart.^a

^aSee Appendix C-1 for complete table.

					Res	ponde	ent l	Numb	er			
Number	1	2	3	4	5	6	7	8	9	10	11	12
1	2	2	2]	2	3	4	2	1	2	3	1
2	2	2	1	2	2	2	2	4	5	3	2	2
3	2	2	2	2	2	2	2	2	۱	2	4	2
4	2	2	2	2	2	2	1	2	5	3	4	2
5	1	2	2 ~~~	2 ~~~	2 ~~~	2	2	2 ~~~	ן ^>	3	2 ~~~~	1
156	2	4	2	2	2	2	2	2	2	2	۱	1
157	2	2	4	2	3	4	2	2	1	2	2	1
158	2	2	3	2	3	4	2	2	1	2	2	1
159	5	2	2	2	2	2	2	2	1	4	4	2
160	1	2	2	2	2	2	1	1	1	2	2	١

TABLE 3-6.--Response Distribution for Each Respondent.^a

^aSee Appendix C-2 for complete table.

Response	Response Number	Assigned Weight
Strongly Agree	1	5
Agree	2	4
Uncertain or Undecided	3	3
Disagree	4	2
Strongly Disagree	5	1

TABLE 3-7.--Response Assigned Weights.

					Res	sponde	int Nu	mber					Total	Total
Statement Number	-	5	m	4	2	9	2	8	6	10	1	12	Weighted Score	Mean Score
-	4	4	4	പ	4	т	5	4	ъ	4	m	ъ	47	3.92
2	4	4	പ	4	4	4	4	2		e	4	4	43	3.58
ĸ	4	4	4	4	4	4	4	4	ى ك	4	2	4	47	3.92
4	4	4	4	4	4	4	5	4	5	ĸ	2	4	47	3.92
ъ	2	4	4	4	4	4	4	4	£	e	4	5	50	4.17
	www	· · · · · · · · · · · · · · · · · · ·	www	www	· · · · ·	www	~~~~	~~~~	~~~~	www	www	www		www.
156	4	2	4	4	4	4	4	4	4	4	2	5	48	4.00
157	4	4	2	4	m	2	4	4	Ъ	4	4	5	45	3.75
158	4	4	e	4	ĸ	2	4	4	5	4	4	5	46	3.83
159	-	4	4	4	4	4	4	4	S	2	2	4	42	3.50
160	5	4	4	4	4	4	2	2	2	4	4	2	53	4.42

TABLE 3-8.--Statement Individual, Total Weighted, and Total Mean Score.^a

^aSee Appendix C-3 for complete table.
A frequency distribution was calculated as shown in Table 3-9 to indicate by respondent the number of statements which were answered 5 (Strongly Agree) through 1 (Strongly Disagree).

Waightad				R	espo	nden	t Num	ber				
Score	1	2	3	4	5	6	7	8	9	10	11	12
5	31	6	8	18	56	8	33	20	97	8	18	64
4	110	136	105	107	97	99	106	113	31	79	81	77
3	13	2	6	0	3	8	1	19	3	56	6	2
2	5	16	40	33	4	42	20	5	18	16	39	12
1	1	0	1	2	0	3	0	4	11	١	16	5

TABLE 3-9.--Respondent/Weighted Score Frequency Distribution.

Following the statement numerical guide shown in Table 3-10, the individual respondents answers to the marketing variables/ elemental combinations were calculated. The weighted scores were converted to mean scores and recorded in Table 3-11.

Group Data Recording

Again following the statement numerical guide as shown in Table 3-10, the total weighted scores for the marketing variables for each respondent were calculated. The weighted scores were converted to mean scores and recorded in Table 3-12.

Variable/Element	Statement Number
Product/Application	1,5,9,13,17,21,25,29,33,37
Product/Utilization	2,6,10,14,18,22,26,30,34,38
Product/Insight	3,7,11,15,19,23,27,31,35,39
Product/Effectiveness	4,8,12,16,20,24,28,32,36,40
Promotion/Application	41.45.49.53.57.61.65.69.73.77
Promotion/Utilization	42.46.50.54.58.62.66.70.74.78
Promotion/Insight	43.47.51.55.59.63.67.71.75.79
Promotion/Effectiveness	44,48,52,56,60,64,68,72,76,80
Place/Application Place/Utilization	81,85,89,93,97,101,105,109,113,117 82,86,90,94,98,102,106,110,114,118
Place/Effectiveness	84,88,92,96,100,104,108,112,116,120
Price/Application	121,125,129,133,137,141,145,149,153,157
Price/Utilization	122,126,130,134,138,142,146,150,154,158
Price/Insight	123,127,131,135,139,143,147,151,155,159
Price/Effectiveness	124,128,132,136,140,144,148,152,156,160

TABLE 3-10.--Statement Numerical Guide.

TABLE 3-11.--Decision Matrix--Individual.^a

	Application	Utilization	Insight	Effectiveness
Respondent No. 1				
Product	4.3	4.3	4.0	4.2
Promotion	4.0	4.1	4.0	4.2
Place	3.7	3.8	3.9	3.7
Price	4.2	4.2	3.7	4.2

^aSee Appendix C-4 for complete table.

Respondent Number	Product	Promotion	Place	Price
]	4.20	4.08	3.78	4.08
2	3.98	3.83	3.70	3.80
3	3.80	3.13	3.38	3.68
4	3.70	3.33	3.88	3.75
5	4.55	4.35	4.23	4.00
6	3.60	3.40	3.33	3.35
7	4.00	3.95	3.73	4.13
8	3.70	3.83	3.93	4.05
9	4.20	4.00	4.08	4.35
10	3.53	3.43	3.15	3.83
11	2.80	3.20	3.53	3.63
12	4.10	3.80	4.33	4.35
Group Average	3.85	3.69	3.75	3.91

TABLE 3-12.--Marketing Variables (4 P's)--Group.

The statement numerical guide (Table 3-10) was followed to calculate the total weighted score for each of the four elements (A,U,I,E) for each respondent. The weighted scores were converted to mean scores and recorded in Table 3-13.

Referring to Table 3-10, the total weighted score for each of the ten product, ten promotion, ten place, and ten price variable concepts for each individual respondent were calculated. The weighted scores were converted to mean scores and recorded in Table 3-14 together with the total mean score for each of the forty marketing concepts.

Respor Numb	ndent ber Aj	pplication	Utilization	Insight	Effectiveness
1		4.05	4.10	3.90	4.08
2		3.75	3.38	3.90	3.78
3		3.38	3.50	3.50	3.60
4		3.80	3.53	3.63	3.70
5		4.10	4.38	4.30	4.35
6		3.33	3.40	3.33	3.63
7		3.70	4.10	3.85	4.15
8		3.95	3.88	3.78	3.90
9		4.10	3.85	4.43	4.25
10		3.55	3.53	3.33	3.53
11		3.18	3.33	3.28	3.38
12		4.15	4.13	4.05	4.25
Group	Average	3.75	3.80	3.77	3.88

TABLE 3-13.--Elements (A,U,I,E)--Group.

TABLE 3-14.--Marketing Concepts--Quads--Individual.^a

Marketing Concepts					Res	ponden	t Numb	er					Total
		2	3	4	5	9	7	8	6	10	1	12	Score
Product Concepts:													
Total product	4.0	4.0	4.25	4.25	4.0	3.75	3.75	3.5	4.0	3.5	2.75	4.25	3.83
Tangible and intangible aspects of the product	4.5	4.0	3.75	3.5	4.25	3.5	3.75	3.25	4.25	3.25	2.25	4.75	3.75
Exchange (transactic barter)	on- 4.25	4.0	4.0	4.0	4.75	4.0	4.25	4.0	4.75	4.0	3.5	4.25	4.15

^aSee Appendix C-5 for complete table.

The individual respondents answers as shown in Table 3-6 were aggregated for all twelve respondents. The total number of responses for each statement were recorded on a scoring form ranging from Strongly Agree (column 1) to Strongly Disagree (column 5) as shown in Table 3-15.

			Column Numb	er	
Statement Number	l Strongly Agree	2 Agree	3 Uncertain or Undecided	4 Disagree	5 Strongly Disagree
1	3	6	2]	0
2	1	8	1	1	1
3	1	10	0	1	0
4	2	8	1	1	0
5	3	8	1	0	1
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		~~~~~~		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	········
156	2	9	0	1	0
157	2	7	1	2	0
158	2	7	2	1	0
159	1	8	0	2	1
160	5	7	0	0	0

TABLE 3-15.--Questionnaire Statement Response Distribution.^a

^aSee Appendix C-6 for complete table.

Weights were assigned according to Table 3-7, to each column. The answers as shown in Table 3-15 were multiplied by

the assigned weights and the weighted scores for each aggregate answer were recorded in Table 3-16. The weighted scores for each statements were added together to determine the total weighted score. The total weighted score was divided by the number of respondents (12) to obtain an aggregate mean score for each statement. The total weighted and mean scores were recorded in Table 3-16.

Based upon the aggregate mean scores shown in Table 3-16, an aggregate statement frequency distribution was calculated to indicate the number of statements which exhibited identical aggregate mean scores. This frequency distribution is shown in Table 3-17 and a bar graph of the distribution is shown in Figure 3-1.

Again referring to the statement numerical guide shown in Table 3-10, the weighted scores for the sixteen marketing variables/elemental combinations were calculated. The weighted scores were converted to mean scores for each combination and recorded in Table 3-18, the hypotheses matrix.

By again following the statement numerical guide (Table 3-10) the aggregate total weighted score for the four marketing variables (4 P's) were calculated by addition of the total weighted score for statement 1 through 40; 41 through 80; 81 through 120; and 121 through 160. The weighted scores were converted to mean scores and recorded in Table 3-19.

95

54321StatementStronglyUncertain oOr1StatementStronglyNumberStronglyNeighted bisagree11524620472532321432532321433540020474103233204751532300471510323344151026334615710283404815810286204816025280446160252804461602528044616025280446160262804461602628044616026280446160262804461602628044616026280446160262804461602628044616026280446				Assigned Wei	ghts			
Statement         Strongly         or         Strongly         Weighted           Number         Agree         Undecided         Disagree         Strongly         Weighted           1         15         24         6         2         0         47           2         5         32         3         2         1         43           2         10         32         3         2         0         47           4         10         32         3         0         0         47           5         15         32         3         0         0         47           15         32         3         3         0         0         47           15         32         3         3         0         0         47           15         32         3         3         0         0         47           15         10         28         0         2         0         48           15         10         28         0         46         46           16         25         28         0         0         46		5	4	3 Uncertain	2	_	Total	Total
1         15         24         6         2         0         47           2         5         32         3         2         1         43           3         5         40         0         2         1         43           4         10         32         3         2         1         47           5         15         32         3         2         0         47           5         15         32         3         2         14         14           15         32         3         3         14         14         14           15         32         3         3         1         14         14           15         32         3         3         1         1         14           15         10         36         0         1         1         1           15         10         28         1         1         1         1           16         5         2         0         4         1         1         1         1         1         1         1         1         1         1         1         1	Statement Number	Strongly Agree	Agree	or Undecided	Disagree	Strongly Disagree	Weighted Score	Mean Score
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	-	15	24	9	2	0	47	3.92
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	2	5	32	£	2	-	43	3.58
4         10         32         3         2         0         47           5         15         32         3         0         0         50         47           www.www.www.www.www.www.www.www.www.ww	с Г	IJ	40	0	2	0	47	3.92
5         15         32         3         0         0         50         50           www.www.www.www.www.www.www.www.www.ww	4	10	32	m	2	0	47	3.92
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	S	15	32	£	0	0	50	4.17
156       10       36       0       2       0       48         157       10       28       3       4       0       45         158       10       28       3       4       0       45         158       10       28       6       2       0       45         159       5       32       0       4       1       42         160       25       28       0       4       1       42         160       25       28       0       5       53       53	www.www		www.ww				www.www	www.www
157       10       28       3       4       0       45         158       10       28       6       2       0       46         159       5       32       0       4       1       42         160       25       28       0       4       1       42         160       25       28       0       0       53	156	10	36	0	2	0	48	4.00
158         10         28         6         2         0         46           159         5         32         0         4         1         42           160         25         28         0         0         0         53	157	10	28	ε	4	0	45	3.75
159         5         32         0         4         1         42           160         25         28         0         0         0         53	158	10	28	9	2	0	46	3.83
160         25         28         0         0         0         53	159	5	32	0	4	-	42	3.50
	160	25	28	0	0	0	53	4.42

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Appendi
^a See

Total Mean Score	Number of Statements	Total Mean Score	Number of Statements
2.17	1	3.50	6
2.25	0	3.58	9
2.33	0	3.67	7
2.42	1	3.75	6
2.50	1	3.83	11
2.58	1	3.92	12
2.67	1	4.00	14
2.75	2	4.08	10
2.83	1	4.17	10
2.92	5	4.25	10
3.00	2	4.33	13
3.08	3	4.42	5
3.17	3	4.50	6
3.25	2	4.58	2
3.33	7	4.67	0
3.42	8	4.75	1

TABLE 3-17.--Statement Frequency Distribution.



Figure 3-1.--Statement Frequency Distribution Bar Graph.

	Application	Utilization	Insight	Effectiveness
Product	3.91	3.70	3.82	3.96
Promotion	3.58	3.67	3.83	3.70
Place	3.66	3.80	3.67	3.88
Price	3.87	4.03	3.78	3.99

TABLE 3-18.--Hypotheses Matrix--Aggregate.

TABLE 3-19.--Marketing Variables (4 P's)--Aggregate.

Mean
3.85
3.69
3.75
3.91

The statement numerical guide (Table 3-10) was again followed to calculate the aggregate total weighted score for each of the four elements (A,U,I,E) by addition of the total weighted score for every fourth statement beginning with statement 1; statement 2; statement 3; and statement 4 respectively. The weighted scores were converted to mean scores and recorded in Table 3-20.

TABLE 3-20.--Elements (A,U,I,E)--Aggregate.

Elements	Mean
Application	3.75
Utilization	3.80
Insight	3.77
Effectiveness	3.88

Table 3-10 is again consulted to calculate the total weighted score for each of the forty marketing concepts (shown in Table 3-4). The aggregate total weighted scores are converted to mean scores by the addition of the total weighted scores for statements 1,2,3, and 4; statements 5,6,7, and 8; and so forth; and recorded in Table 3-21.

Marketing Concepts	Mean
Product Concepts: Total product Tangible and intangible aspects of the product Exchange (tranaction-barter) Product design Product life cycle Portfolio concept Brandingassurance of quality Brandingidentification Packagingprotection	3.83 3.75 4.15 3.83 3.90 3.54 4.06 3.52 3.65 4.23
Promotion Concepts: Communicationstwo-way model Management information system Kinds of sales presentationsselling-formula theory Kinds of sales presentationsneed-satisfaction theory Mass advertising Advertisingto inform Advertisingto persuade Media selection Personal sellingqualifying the prospect Market segmentation	3.52 3.13 3.40 3.25 3.92 3.67 3.46 4.17 4.06 4.35
<u>Place Concepts:</u> Total systems concept Payoff-tolerance function Physical distribution Middlemen, the union as the Middlemen, functions performed Direct or indirect channels Channel leadershipthe union as the channel captain Pushing and pulling through the channels Product-market committment Time and space utility	3.71 3.94 4.27 3.77 3.46 4.02 3.17 3.77 3.52 3.88
Price Concepts: Price versus nonprice competition List price Discounts and allowances Functional discounts Quantity discounts Unit pricing Turnover (stockturn) rate Full-line pricing Penetration pricing Skimming pricing	3.98 4.23 4.04 3.88 3.71 3.44 4.13 4.33 3.54 3.88

TABLE 3-21.--Marketing Concepts--Quads--Aggregate.

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#### CHAPTER IV

# CONCLUSIONS AND RECOMMENDATIONS

Chapter III developed the research design and reported the survey results. In Chapter IV we shall analyze and interpret those results to determine whether to accept or reject our sixteen hypotheses. In addition, conclusions will be drawn and statistically tested where applicable, and recommendations will be made where supported by the evidence.

## Conclusions

#### Marketing Variables and Elements--Aggregate

The four variables (4 P's) and the four elements (A,U,I,E) as shown in Tables 3-19 and 3-20 were each ranked from lowest (1) to highest (4) according to their aggregated mean score. The rankings are shown in Table 4-1.

While the price variable and the effectiveness element appear to exhibit the highest average mean, there is considerable question as to whether these differ sufficiently from the others to justify any significant conclusions.

In an effort to correct this lack of definition the data in Table 3-18 were subjected to the Friedman Analysis of Variance of Ranks (2:166-172). This was done under the null

103

Marketing Variables				Elements	· · · · · · · · · · · · · · · · · · ·
	Mean	Ranking		Mean	Ranking
Product	3.85	3	Application	3.75	1
Promotion	3.69	1	Utilization	3.80	3
Place	3.75	2	Insight	3.77	2
Price	3.91	4	Effectiveness	3.88	4

TABLE 4-1.--Marketing Variables and Elements--Aggregate Mean and Ranking.

hypothesis that all variable means and all element means are equal and to determine the equality of the means ( $\mu$ ). Our null hypothesis and alternate hypothesis are stated as:

Marketing Variables

$$H_{0}: \mu_{p_{1}} = \mu_{p_{2}} = \mu_{p_{3}} = \mu_{p_{4}}$$
$$H_{1}: \mu_{p_{1}} \neq \mu_{p_{2}} \neq \mu_{p_{3}} \neq \mu_{p_{4}}$$

Elements

$$H_{0}: \mu_{A} = \mu_{U} = \mu_{I} = \mu_{E}$$
$$H_{1}: \mu_{A} \neq \mu_{U} \neq \mu_{I} \neq \mu_{E}$$

# Decision Matrix--Aggregate

The means (from Table 3-18) were ranked from lowest (1) to highest (4). The rankings are shown in Table 4-2.

TABLE 4-2.--Decision Matrix--Aggregate Rankings.

	Product	Promotion	Place	Price
a. Marketing	Variables			
Application	4	1	2	3
Utilization	2	۱	3	4
Insight	3	4	١	2
Effectiveness	_3	_1	_2	_4
(Σ Ranks)	12	7	8	13
	Application	Utilization	Insight	Effectiveness
b. Elements				
Product	3	1	2	4
Promotion	1	2	4	3
Place	1	3	2	4
Price	_2	_4_	1	3
(∑ Ranks)	7	10	9	14

Friedman Analysis of Variance

The Friedman value  $(\chi_r^2)$  was calculated for each set of rankings according to the following equation:

$$\chi_r^2 = \frac{12}{N_K(K+1)} \sum_{j=1}^K (R_j)^2 - 3N(K+1),$$
 (4.1)

where: N = rows,

K = columns, and

 $R_{i}$  = sum of the ranks in column j.

The Friedman value equals 3.9 for the variables (Table 4-2a) and for the elements (Table 4-2b). According to Sidney Siegel (2:249), with three degrees of freedom, Chi Square  $(\chi_r^2)$  values greater than 7.82 are significant at the 0.95 probability level. This would indicate that the null hypothesis is accepted in both situations. The means of the marketing variables are equal to one another, as are the means of the elements. From this we can conclude that the respondents on an aggregate basis reported no significant difference among the marketing variables (4 P's) or among the elements (A,U,I,E).

#### Marketing Variables--Group

The mean of the respondents' answers to the survey questionnaire by marketing variable were shown in Table 3-12. In Table 4-3, the means for each individual respondent were ranked from lowest (1) to highest (4).

The price variable and possibly the product variable appear to be ranked highest, at least according to the rank summations. However, the question of a significant difference between the variables again arises. The data were subjected to the Friedman Analysis of Variance of Ranks under the null hypothesis that all variable means are equal and to determine the equality of the

Respondent	Product	Promotion	Place	Price
1	4	2.5	1	2.5
2	4	3	1	2
3	4	1	2	3
4	2	1	4	3
5	4	3	2	1
6	4	3	1	2
7	3	2	1	4
8	1	2	3	4
9	3	1	2	4
10	3	2	1	4
11	1	2	3	4
12	2	I	3	4
(Σ Ranks)	35	23.5	24	37.5

TABLE 4-3.--Marketing Variables--Respondents' Ranking--Group.

means ( $\mu$ ). Our null Hypothesis and alternate hypothesis are stated as:

$$H_{0}: \mu_{P_{1}} = \mu_{P_{2}} = \mu_{P_{3}} = \mu_{P_{4}}$$
$$H_{1}: \mu_{P_{1}} \neq \mu_{P_{2}} \neq \mu_{P_{3}} \neq \mu_{P_{4}}$$

Friedman Analysis of Variance

The Friedman value  $(\chi_r^2)$  was calculated (2:166-172), resulting in a  $\chi_r^2$  of 7.98. And according to Sidney Siegal (2:249), with three degrees of freedom, Chi Square  $(\chi_r^2)$  values greater than 7.82 are significant at the 0.95 probability level. This indicates that the null hypothesis is rejected. The means of the marketing variables are not equal to one another. We conclude that based upon the answers of the respondents at least one of the marketing variables is perceived by them as significantly different from the other variables. The rank data were tested by Scheffé's Method for Multiple Comparisons (1:57-59) to identify the unequal variable.

Scheffé Method for Multiple Comparisons

The Scheffé Method for Multiple Comparisons (1:57-59), sometimes called the S-method states that the probability is  $1-\alpha$ that all imaginable contrasts will be captured by the set of intervals given by:

$$\hat{L} - S \stackrel{\circ}{\sigma} \leq L \leq \hat{L} + S \stackrel{\circ}{\sigma}, \qquad (4.2)$$

where

$$S^2 = (r-1) F_{1-\alpha}, r-1, N-r$$
 (4.3)

N = sample size, R = number of samples, and F = value of the F test;  $\sigma^{2} = MS_{W} \sum_{j=1}^{r} \frac{c_{j}^{2}}{n_{j}},$  (4.4) MS_W = mean square within groups, n = sample size, and c = constant;

and L is a construct of the type.

$$L = c_1 \mu_1 + c_2 \mu_2 + c_3 \mu_3 + c_4 \mu_4$$

The constant c can take the value of either 1 or 0 (zero) to form all of the  $\mu$  combinations.

The values for S and  $\sigma$  were calculated to determine the significant range for equation 4.2 in the following manner:

$$S^2 = (r-1) F_{0.90}, 4-1, 48-4$$
  
= (4-1) (2.22)  
= 6.66  
 $S = \sqrt{6.66} = 2.58$ ,

and

$$\sigma^2 = MS_{W}\left(\frac{1+1}{12}\right),$$

where

$$MS_{W} = \frac{NK(K^{2}-1)}{12} \times \frac{1}{(N-1)K}, \qquad (4.5)$$

In addition,

$$\sigma^{2} = \left[\frac{(12)(4)(4^{2}-1)}{12} \times \frac{1}{(48-4)}\right] \times \frac{2}{12}$$
$$= (1.36)\frac{1}{6}$$
$$= 0.227$$

was substituted, and

$$\sigma = \sqrt{0.227} = 0.476.$$

Placing these figures into equation 4.2, we have:

L <u>+</u> 1.23 (significant range).

The variable(s) which the respondents perceived as being significantly different from the others may be identified by testing the six null hypotheses and six alternate hypotheses. These are stated as follows:

$$H_{0}: 1. \ \mu_{P_{4}} - \mu_{P_{2}} = 0 \qquad H_{1}: 1. \ \mu_{P_{4}} - \mu_{P_{2}} \neq 0$$

$$2. \ \mu_{P_{4}} - \mu_{P_{3}} = 0 \qquad 2. \ \mu_{P_{4}} - \mu_{P_{3}} \neq 0$$

$$3. \ \mu_{P_{4}} - \mu_{P_{1}} = 0 \qquad 3. \ \mu_{P_{4}} - \mu_{P_{1}} \neq 0$$

$$4. \ \mu_{P_{1}} - \mu_{P_{2}} = 0 \qquad 4. \ \mu_{P_{1}} - \mu_{P_{2}} \neq 0$$

$$5. \ \mu_{P_{1}} - \mu_{P_{3}} = 0 \qquad 5. \ \mu_{P_{1}} - \mu_{P_{3}} \neq 0$$

6. 
$$\mu_{P_3} - \mu_{P_2} = 0$$
  
6.  $\mu_{P_3} - \mu_{P_2} \neq 0$ 

The null hypotheses are shown in Table 4-4, together with the mean differences for each of the six combinations calculated from Table 4-3.

	μ Ranks	^μ Ρ _j ^{-μ} Ρ ₂	^μ ρ ^{-μ} ρ j 3	^μ ρ ^{-μ} ρ _j
P ₄	3.125	1.165	1.125	0.205
P1	2.92	0.96	0.92	
Р ₃	2.00	0.04		
P2	1.96			
		$j = P_4, P_1$	, P ₃	

TABLE 4-4.--Mean Differences for the Marketing Variables--Group.

To be significant at the 0.90 probability level, the mean differences must exceed the 1.23 significant range value. In Table 4-4, none of the mean differences exceed this value; therefore, all of the null hypotheses (Ho) are accepted. Our conclusion from the Scheffé test is that none of the marketing variables were perceived by the respondents to be significantly different from any of the other variables. While the Friedman test had indicated a difference among the variables, the Scheffé test, which is more conservative, was unable to identify that variable.

# Elements--Group

The mean of the respondent answers to the four elements (A,U,I,E), shown in Table 3-13, were analyzed. The responses were ranked from lowest (1) to highest (4), as shown in Table 4-5.

Respondent	Application	Utilization	Insight	Effectiveness
1	2	4	1	3
2	1	3	4	2
3	1	2.5	2.5	4
4	4	1	2	3
5	1	4	2	3
6	1.5	3	1.5	4
7	1	3	2	4
8	4	2	1	3
9	2	1	4	3
10	4	2.5	1	2.5
11	1	3	2	4
12	_3	2	1	_4
(Σ Ranks	s) 25.5	31	24	39.5

TABLE 4-5.--Elements--Respondents' Ranking--Group.

The effectiveness element at first glance appears to be higher rated based upon sum of the ranks value. The ranking data were analyzed by the Friedman Analysis of Variance of Ranks under the null hypothesis that the mean of all elements are equal. Our null hypothesis and alternate hypothesis are stated as:  $H_{0}: \mu_{A} = \mu_{U} = \mu_{I} = \mu_{E}$  $H_{1}: \mu_{A} \neq \mu_{II} \neq \mu_{T} \neq \mu_{F}$ 

Friedman Analysis of Variance

The Friedman value  $(\chi_r^2)$  was calculated (2:166-172), resulting in a value of 7.38. And according to Sidney Siegal (2:249) with three degrees of freedom, Chi Square  $(\chi_r^2)$  values greater than 7.82 are significant at the 0.95 probability level. This indicates that the null hypothesis is accepted. The means of the elements (A,U,I,E) are equal, and no statistical differences exist among the means of the four elements as viewed by the respondents.

## Decision Matrix--Individual

Because of the greater differentiation which was observed in analyzing group responses as compared to aggregate responses (Table 4-3 and 4-5 as compared to Table 4-2), it was decided to expand the analysis by greater in-depth analysis of individual respondents. From the data in Table 3-11 a two-way ranking was made, by marketing variable and by element, for each individual respondent. The results are shown in Table 4-6.

The rankings in Table 4-6 were analyzed by the Friedman Analysis of Variance of Ranks (2:166-172) under the null hypothesis that all marketing variable means (4 P's) are equal and that all elements means (A,U,I,E) are equal. Our null hypothesis and alternate hypothesis are stated as:

Respondent No. 1	Product	Promotion	Place	Price
a. Marketing Variables				
Application	4	2	1	3
Utilization	4	2	1	3
Insight	3.5	3.5	2	1
Effectiveness	_3	_3	1	3
(Σ Ranks)	14.5	10.5	5	10
	Application	Utilization	Insight	Effectiveness
b. Elements				
Product	3.5	3.5	1	2
Promotion	1.5	3	1.5	4
Place	1.5	3	4	1.5
Price	3	_3	1	3
(Σ Ranks)	9.5	12.5	7.5	10.5

TABLE 4-6.--Decision Matrix--Individual Ranking.^a

^aSee Appendix D-1 for complete table.

Marketing Variables

 $H_{0}: \mu_{P_{1}} = \mu_{P_{2}} = \mu_{P_{3}} = \mu_{P_{4}}$  $H_{1}: \mu_{P_{1}} \neq \mu_{P_{2}} \neq \mu_{P_{3}} \neq \mu_{P_{4}}$ 

Elements

$$H_{0}: \mu_{A} = \mu_{U} = \mu_{I} = \mu_{E}$$
$$H_{1}: \mu_{A} \neq \mu_{U} \neq \mu_{I} \neq \mu_{E}$$

Friedman Analysis of Variance

The results of these calculations are shown in Table 4-7.

	Friedman	Values
Respondent	Variables	Elements
1	6.825	1.95
2	4.35	3.225
3	8.1*	2.1
4	6.3	1.725
5	10.425*	6.075
6	3.413	4.35
7	5.025	5.475
8	1.5	1.275
9	0.375	3.75
10	9.225*	5.175
11	9.525*	3.15
12	4.5	0.675

TABLE 4-7.--Respondents' Friedman ( $\chi_r^2$ ) Values--Individual.

*Values greater than 7.82 at 0.95 probability level.

Four of the Friedman values identified by an asterisk in Table 4-7, are greater than 7.82. In the case of respondents 3,5,10, and 11, the null hypothesis of the marketing variables is rejected, indicating that these four respondents perceived a statistically significant difference among the variables. The data were tested by Scheffé's Method for Multiple Comparisons (1:57-59) to identify the unequal variable(s). Again, the significant range for equation 4.2 was determined by calculating the values for S and  $\sigma$  as shown in equations 4.3 and 4.4 above.

$$S^2 = (r-1) F_{0.90}, 4-1, 16-4$$
  
= (4-1) F_{0.90}, 3, 12  
= (3)(2.61)  
= 7.83,

and

$$\sigma^2 = MS_{v}\left(\frac{1+1}{4}\right),$$

 $S = \sqrt{7.83}$ , = 2.80,

where

$$MS_{W} = \frac{N K (K^{2}-1)}{2} X \frac{1}{(N-1) K},$$

N = rows, and
K = columns,

and substituting

$$\sigma^{2} = \left[\frac{(4)(4)(4^{2}-1)}{2} \times \frac{1}{12}\right] \frac{2}{4}$$
$$= (1.67) \left(\frac{1}{2}\right)$$
$$= 0.835$$
$$\sigma = \sqrt{0.835} = 0.914.$$

Placing these figures into equation 4.2 yields

<u>Individual Three</u>.--The variable(s) perceived by individual three as significantly different from the other variables may be identified by testing the following six null hypotheses and six alternate hypotheses:

 $H_{0}: 1. \ \mu_{P_{1}} - \mu_{P_{2}} = 0 \qquad H_{1}: 1. \ \mu_{P_{1}} - \mu_{P_{2}} \neq 0$   $2. \ \mu_{P_{1}} - \mu_{P_{3}} = 0 \qquad 2. \ \mu_{P_{1}} - \mu_{P_{3}} \neq 0$   $3. \ \mu_{P_{1}} - \mu_{P_{4}} = 0 \qquad 3. \ \mu_{P_{1}} - \mu_{P_{4}} \neq 0$   $4. \ \mu_{P_{4}} - \mu_{P_{2}} = 0 \qquad 4. \ \mu_{P_{4}} - \mu_{P_{2}} \neq 0$ 

5.	^μ _{P4} - μ _{P3}	= 0	5.	^μ Ρ4	-	^μ Ρ ₃	ŧ	0
6.	^μ P ₃ - μ _P 2	= 0	6.	^μ Ρ ₃	-	^μ Ρ2	ŧ	0

The null hypotheses are shown in Table 4-8, together with the mean differences for each of the six combinations calculated from Table 4-6.

TABLE 4-8.--Mean Differences for the Marketing Variables--Individual Three.

	^µ Ranks	^μ Ρ _j ^{-μ} Ρ ₂	^μ Ρ ^{-μ} Ρ ₃	^μ Ρ _j ^{-μ} Ρ ₄
Р ₁	3.50	2.25	1.5	0.25
Р ₄	3.25	2.0	1.25	
P ₃	2.0	0.75		
P ₂	1.25			
		j = P ₁ , P ₄ , P	3	

To be significant at the 0.90 probability level, the mean difference must exceed the 2.56 significant range value. In Table 4-8, none of the mean differences exceed this value; therefore, all of the null hypotheses (Ho) are accepted. Our conclusion from the Scheffé test is that none of the marketing variables were perceived by individual three as significantly different from any others. While the Friedman test had indicated a difference among the variables, the Scheffé test, being more conservative, was unable to identify that variable.

<u>Individual Five</u>.--The marketing variable(s) perceived by individual five as significantly different from the others may be identified by testing the following six null hypotheses and six alternate hypotheses:

н _о :	1. $\mu_{P} - \mu_{P} = 0$ 1 4	H _l : 1. μ _P - μ _P ≠ 0 1 4
	2. $\mu_{P_1} - \mu_{P_3} = 0$	2. µ _{P1} - µ _P ≠ 0 1 3
	3. $\mu_{P_1} - \mu_{P_2} = 0$	3. µ _{P1} - µ _P ≠ 0 1 2
	4. $\mu_{P_2} - \mu_{P_4} = 0$	4. µ _P - µ _{P4} ≠ 0
	5. $\mu_{P_2} - \mu_{P_3} = 0$	5. µ _{P2} - µ _{P3} ≠ 0
	6. $\mu_{P_3} - \mu_{P_4} = 0$	6. μ _P - μ _P ≠ 0 3 4

The null hypotheses are shown in Table 4-9, together with the mean differences for each of the six combinations calculated from Table 4-6.

To be significant at the 0.90 probability level, the mean difference must exceed the 2.56 significant range value. In Table 4-9, only one entry (indicated by an asterisk) exceeds this value; therefore, our null hypothesis (Ho) number 1 is rejected,

	^µ Ranks	^μ Ρ ^{-μ} Ρ j 4	^μ ρ _j ^{-μ} ρ ₃	^µ Pj ^{-µ} P2
P ₁	4.0	2.875*	1.875	1.25
^P 2	2.75	1.625	0.625	
^Р з	2.125	1.0		
P ₄	1.125			
-		j = P ₁ , P ₂ ,	P ₃	

TABLE 4-9.--Mean Differences for the Marketing Variables--Individual Five.

^{*}Values greater than 2.56 at 0.90 probability levels.

while numbers 2 through 6 are accepted. Our conclusion from the Scheffé test is that the number 1 alternate hypothesis  $(H_1)$  is accepted and that one of the marketing variables is perceived by individual five as significantly different from the other variables. Product,  $P_1$ , is perceived as significantly different from price,  $P_4$ .

<u>Individual Ten</u>.--The marketing variable(s) perceived by individual ten as significantly different from the others may be identified by testing the following six null hypotheses and six alternate hypotheses:

$$H_{0}: 1. \ \mu_{P_{4}} - \mu_{P_{3}} = 0 \qquad H_{1}: 1. \ \mu_{P_{4}} - \mu_{P_{3}} \neq 0$$

$$2. \ \mu_{P_{4}} - \mu_{P_{2}} = 0 \qquad 2. \ \mu_{P_{4}} - \mu_{P_{2}} \neq 0$$

3.	^μ Ρ ₄ - μ _Ρ 1	= 0	3.	^μ Ρ4	-	۲ ^۹	ŧ	0
4.	^μ ρ - μ _ρ 3	= 0	4.	^µ P	-	^µ Р3	¥	0
5.	^μ ρ ^{- μ} ρ 1 2	= 0	5.	۱ ^{۹۷}	-	^μ Ρ2	ŧ	0
6.	^μ P ₂ - μ _P ₃	= 0	6.	^μ Ρ2	-	^μ Ρ3	ŧ	0

The null hypotheses are shown in Table 4-10, together with the mean differences for each of the six combinations calculated from Table 4-6.

	^µ Ranks	^μ ρ ^{-μ} ρ j 3	^µ p ^{-µ} p j 2	^μ ρ ^{-μ} ρ j l
P ₄	3.875	2.625*	1.875	1.0
P	2.875	1.625	0.875	
P2	2.0	0.75		
P ₃	1.25			
		$J = P_4, P_1,$	P ₂	

TABLE 4-10.--Mean Differences for the Marketing Variables--Individual Ten.

*Values greater than 2.56 at 0.90 probability level.

To be significant at the 0.90 probability level the mean difference must exceed the 2.56 significant range value. In

121

Table 4-10, only one entry (indicated by an asterisk) exceeds this value; therefore, our null hypothesis ( $H_0$ ) number 1 is rejected, while numbers 2 through 6 are accepted. Our conclusion from the results or the Scheffé test is that the number 1 alternate hypothesis ( $H_1$ ) is accepted and that one of the marketing variables is perceived by individual ten as significantly different from the other variables. Price,  $P_4$ , is perceived as significantly different from the from place,  $P_3$ .

<u>Individual Eleven</u>.--The marketing variable(s) perceived by individual eleven as significantly different from the others may be identified by testing the following six null hypotheses and six alternate hypotheses:

$H_0: 1. \mu_P - \mu_P = 0$	H ₁ : 1. µ _P - µ _P ≠ 0 4 1
2. $\mu_{P_4} - \mu_{P_2} = 0$	2. µ _{P4} - µ _{P2} ≠ 0
3. $\mu_{P_4} - \mu_{P_3} = 0$	3. µ _{P4} - µ _{P3} ≠ 0
4. $\mu_{P_3} - \mu_{P_1} = 0$	4. µ _P - µ _P ≠ 0 3 ¹
5. $\mu_{P_3} - \mu_{P_2} = 0$	5. μ _{P3} - μ _P ≠ 0 3 2
6. $\mu_{P_2} - \mu_{P_1} = 0$	6. µ _P - µ _P ≠ 0 2 1

	•	The null	hypothe	ses are	showr	ı in	Table 4-11,	together	with
the	mean	differer	nces for	each of	f the	six	combination	s calcula	ted
fror	n Tab	le 4-6.							

	^µ Ranks	^μ ρ _j ^{-μ} ρ ₃	^μ Ρ _j ^{-μ} Ρ j 2	^μ ρ ^{-μ} ρ j l
P ₄	3.625	2.625*	1.375	0.50
P۱	3.125	2.125	0.875	
P2	2.25	1.25		
Р ₃	1.0			
		$j = P_{A}, P_{1}, P_{2}$	) 2	

TABLE 4-11.--Mean Differences for the Marketing Variables--Individual Eleven.

^{*}Values greater than 2.56 at 0.90 probability level.

To be significant at the 0.90 probability level, the mean difference must exceed the 2.56 significant range value. In Table 4-11, only one entry (indicated by an asterisk) exceeds this value. Therefore, our null hypothesis ( $H_0$ ) number 1 is rejected, while numbers 2 through 6 are accepted. Our conclusion from the results of the Scheffé test is that the number 1 alternate hypothesis ( $H_1$ ) is accepted and that one of the marketing variables is perceived by individual eleven as significantly different from the other variables. Price,  $P_4$ , is perceived as significantly different from place,  $P_3$ .

Resumé--Conclusions

Let us summarize the conclusions which may be drawn from the research at this point.

- 1. On an aggregate basis, the respondents reported that statistically there is no significant difference in their use and understanding among the marketing variables (4 P's) or among the elements (A,U,I,E). In other words, the respondents found each of the marketing variables equally useful in their personnel operations. They also found that to be useful in their personnel operation these concepts must exhibit an equivalent proportion of each of the four elements.
- 2. The respondents as a group reported that statistically there is a significant difference in their use and understanding of at least one of the marketing variables but this variable could not be statistically identified. The respondents perceived one of the marketing variables as being a more useful tool to them in their personnel operations than are the other three variables tested but this variable could not be identified.
- 3. The respondents as a group reported that statistically there is no significant difference in their use and understanding among the elements (A,U,I,E). The respondents perceived that each concept must exhibit an equivalent proportion of each of the four elements if that concept is to be a useful tool to the personnel practitioner.
- 4. On an individual basis, the respondents reported that statistically there is no significant difference in their use and understanding among the elements (A,U,I,E). The respondents perceived that a concept to be useful to the personnel practitioner in their operations must possess an equivalent proportion of each of the four elements.
- 5. On an individual basis, four of the respondents reported that statistically there is a significant difference in their use and understanding among the marketing variables (4 P's). In other words, four of the respondents perceived one of the marketing variables as being more useful to them in their personnel operations than are the other variables. For respondent 3, the more useful variable could not be statistically
identified. For respondent 5, the product variable was statistically identified as being more useful than the price variable. For respondents 10 and 11, the price variable was statistically identified as being more useful than the place variable.

#### Recommendations

Based on the findings and conclusions of this research, several recommendations can be formulated to operationalize the xenolithic structure of marketing thought in the process of applying marketing conceptual tools to the personnel management discipline.

## Elements

The respondents reported that statistically there is no significant difference in their use and understanding among the four elements tested--application, utilization, insight, and effectiveness. The difference was not exhibited on an aggregate, group, or individual basis. This does not mean that these elements should be ignored. The respondents perceived that each concept must exhibit an equivalent proportion of the four elements if that concept is to be a useful tool to the personnel practitioner. The personnel practitioner should give the same degree of attention to the elements as they do to the marketing variables. A marketing conceptual tool that is to be functional for the personnel practitioner must contain an appropriate and consistent level of all four of the elements tested. This observation appears consistent with the old maxim that a chain is only as good as its weakest link. So, too, is the tool only as strong as its weakest element.

Our recommendation regarding these four tested elements is that any marketing concept which is under consideration by the personnel practitioner must exhibit the characteristics of all four elements and must do so at an appropriate level and in an integrated balance. Most personnel practitioners select conceptual tools which can be put to practical use in everyday situations. Marketing concepts must be relevent to a practitioner's needs, that is, they must provide additional insight into and/or a unique perspective on the personnel practitioner's operational concerns.

The marketing concepts we have researched are viable tools for personnel practitioners but these concepts must exhibit equally strong and essentially balanced degrees of applicability, utilization, insight, and effectiveness.

## Marketing Variables

Of the four marketing variables tested here--product, promotion, place, and price--the respondents on an aggregate basis perceived no significant difference in their use and understanding among the marketing variables. The respondents as a group perceived at least one of the variables to be significantly different, but this variable could not be identified (see Table 4-4).

On an individual basis, differences among the variables were perceived by four of the respondents, and three of these variables were identified (see Table 4-9, 4-10, and 4-11). A discussion of each of these marketing variables will identify where these variables will contribute to the practitioner's personnel program, as well as to areas where the practitioner will need additional problem-solving conceptual tools for incorporation into their day-to-day operations.

The Price Variable

Increased effort should be given to sharpening the focus of the price variable, and its related concepts, as a personnel management tool. Such an effort would yield economic benefits to the institutions in terms of visual dollar savings. The economic skills necessary to operationalize this variable may already be available within the institution's organizational structure. Much price and wage theory has its base in the field of economics, and such marketing concepts as full-line pricing, list price less discounts and allowances, functional discounts, and skimming pricing are regarded as being derived more from marketing than from personnel management. The conclusions of this research suggest that price concepts are more widely used by the sample group in their day-to-day operations than are the other three variables (see Table 4-1 and 4-3). This interpretation may appear questionable but when one realizes that approximately 85 percent of the annual budget for the institutions surveyed is paid out by the institution in the form of wages, salaries, and fringe benefits to employees, one can readily see the importance

of the application of the price variable by the personnel practitioner.

Concerted effort should be made to identify, analyze, and apply the various price concepts to personnel situations. The concept, full-line pricing, was rated by the aggregate respondents as the second most important of the forty concepts tested (see Table D-4). The respondents are extremely conscious of the interrelationship between employees' compensation levels, the relative prices paid for various labor skills. It appears that conscious effort is directed at keeping these offered prices (compensation levels) within some perceived "balance." Practitioners should examine the full-line pricing concept for application of these tools to improvement of the personnel operation. Practitioners should apply the full-line pricing concept to their pricing (compensation) strategy. They must price the full product line (i.e. establish a wage schedule) such that the employees and their unions perceive the employee pay ranges to be appropriate and logically related to the wage rates received by other employees (see Figure 2-16).

The functional discount and the quantity discount concepts also are candidates for additional efforts by certain respondents (see Table 3-14). While several respondents scored the functional discount concept relatively high, others scored the concept relatively low. The low scoring respondents should apply the functional discount concept to their personnel program; this is

a recognition that much as the wholesaler or the retailer perform functions, employees perform different functions for the employer and the wage level received by each employee should be based upon the functions which the employee performs. The employee who performs the more skilled functions should receive a higher price (wage rate) for such performance. The less skilled employee should receive a lower price (wage rate) for the less skilled functions which they perform for the employer. The quantity discount concept was also scored relatively high by several respondents, others scored the concept relatively low. Those respondents who scored it lower should also make fuller application of the quantity discount concept to increase the effectiveness of their personnel programs. Employees who exceed established standards should receive price rewards in recognition of their exceptional performances. In this instance, employees who have been employed for a number of years should receive additional price concessions (bonuses) such as longevity payments, additional vacation, and service award recognition.

## The Product Variable

The product variable was perceived by one respondent as being significantly different from the price variable (see Table 4-9). Greater effort should be applied to the development of the product variable and its related concepts as personnel management tools. The institutions included in this research require a wide variety of skills among their employees. After wages, salaries,

and fringe benefits, the quality of the work force and its recruitment, selection, motivation, and training is of importance to the personnel practitioner.

While none of the ten product concepts tested were rated in either the lowest or highest group of three (see Table D-4), the respondents as a group appear to place considerable emphasis upon this variable. Table 4-3 indicates that five of the respondents gave the product variable the highest ranking (4) and two respondents ranked it the lowest (1). The latter two respondents would be able to increase the effectiveness of their personnel programs by application of the product concepts.

Which of the ten concepts tested is most likely to be a viable tool to these respondents? Referring to Table 3-14, the branding-identification concept is scored high by one respondent while two respondent scored it relatively low. If one respondent finds application of this concept so highly useful in his personnel program, perhaps increased effort on the part of the other two respondents will lead to a more effective personnel program. The provision of service awards such as pins, watches, certificates of service, etc. are important activities in the identification of employees who have provided long-term service to the employer. Such awards also "brand" the employee as a member of the employer's family of products and assists in differentiation of the employee as a unique product.

Other product concepts to which the respondents might devote additional effort are seen in Table 3-14. One respondent

scored the product life cycle concept high while another respondent gave the concept a low score. Perhaps the latter respondent should substantially increase his efforts in applying the product life cycle concept to his personnel program. While the first respondent scored the product life cycle concept high, he also scored the related portfolio concept low. The second respondent also scored the portfolio concept low. Why the high score for the product life cycle by the first respondent and such a low score for its related concept, the portfolio concept? The answer may be that he is not knowledgeable about the portfolio concept, or perhaps he does not possess the requisite skills to apply this tool to his personnel program. It may be that the first respondent who presently makes use of the product life cycle concept could obtain substantial returns on efforts to apply the portfolio concept to his personnel program.

The need for a properly balanced investment portfolio has long been recognized. The need for a proper balance of products at various stages of their individual product life cycles has long been recognized by the marketer. By application of this mix concept to the personnel management discipline the practitioner will increase the effectiveness of his manpower planning, recruitment, selection, and training programs through recognition of the employer's need for a balanced work force. A work force that is balanced in terms of skill levels, longevity, anticipated retirement, etc. and which provides the employer with a work force that

is composed of employees at various stages in their working life cycle.

In Chapter II it was demonstrated how the marketing concept of the product life cycle could be used to enrich the learning curve concept from the personnel discipline. Respondents' attitudes toward the product life cycle concept are interesting. As shown in Table 3-14, eight of the twelve practitioners rated the concept at a high level. One respondent rated it at a low level. Why the spread from high to low? A review of the questionnaire statements shows that these statements, as does the product life cycle concept, recognize the ever-changing market environment and the need for corresponding changes in portions of the personnel functions (in this case, the training function) to attune the firm's strategy to the new competitive environment. It is possible that the respondent who rated it low, (1) exists in a nonchanging environment, which seems unlikely; (2) does not recognize that the environment is changing, which also seems unlikely; or (3) does not know what to do about the changes or have the ability to adapt to them. Of course, the financial inability of the practitioner's institution to cope with the situation is also a possibility. However, it may well be a lack of conceptual tools needed to solve the problem which causes the low rating by this respondent. Perhaps the respondent is unaware of the product life cycle concept, or is unaware of its usefulness in solving personnel problems.

The application of the product life cycle concept to the personnel management discipline provides the practitioner with the recognition that over time employees pass through several stages during their working life. Their skills become outdated and must be updated or entirely replaced by newly learned skills. Training programs and educational assistance programs must be instituted to keep employee skills at the desired levels.

The Place Variable

In addition to the quality of the work force, a major consideration for the personnel practitioner is having the right employee in the right job.

On an individual basis, two of the respondents perceived the price variable as being more useful to them in their personnel operations than was the place variable (see Table 4-10 and 4-11). On an aggregate basis, the respondents scored the place variable third lowest of the four variables tested (see Table 4-1). Of the forty concepts tested, physical distribution was scored third highest, and channel leadership--the union as the channel captain scored next to the lowest. Where, then, should efforts be concentrated to increase the effectiveness of the personnel program to achieve the greatest return for the effort expended? Table 3-14 again provides insight.

Physical distribution was scored high by ten respondents, while two respondents scored it relatively low. The high rating appears to substantiate the conclusion that personnel practitioners

are strongly aware of the need to deliver the provisions of the personnel program to employees. Employees must receive their paychecks when due, their fringe benefits when needed, and their contractual benefits (seniority, grievance handling, and so forth) when appropriate. Because of the high level of application of this concept by many of the respondents, it is suggested that the latter two respondents could justify the expenditure of additional effort on the physical distribution concept by more effective delivery of the provisions of the personnel program to the entitled employees. One respondent (9) might well consider increasing his efforts in terms of the place concepts, or at least seek a more balanced approach to them. This respondent scored both the physical distribution and the direct or indirect channels concepts high; he scored both the concept channel leadership and the concept middleman at a low level. The respondent appears to recognize the application of the channels concepts but fails to make full use of the leadership and function concepts. Greater effort expended on the latter two concepts, or a better balance of effort among the four concepts, might result in improved effectiveness of his personnel program.

The channel leadership--the union as the channel captain concept was rated second lowest by the respondents among the forty concepts tested (see Table D-4). The personnel practitioner apparently rejects the idea that the union serves in this role in the distribution system between employer and employee. They seem to view themselves, the employer, as the channel captain. It is generally recognized by personnel practitioners that they possess only limited knowledge about the internal workings of the bargaining unions with which they must deal on a day-to-day basis. The opportunity for them to obtain accurate and detailed information also is extremely limited. But knowledge is understanding. The middleman, functions performed concept also provides insight to the personnel practitioner when applied to the personnel program. The recognized employee union, like the wholesaler, performs buying and selling functions for the employee (consumer). In this role, the union will purchase from the employer only those goods and services which the union perceives they can sell to the employee to satisfy his needs. Recognition of this buyer-seller role of the union greatly sharpens the focus and effectiveness of the collective bargaining process by reducing the expenditure of time and effort presently spent on proposals which will not be "brought" by the union negotiators; because it cannot be "sold" to the membership. If certain respondents are making substantial application of these leadership and functional concepts, it is very likely that similar efforts by the other respondents would be most worthwhile.

The development of in-depth understanding of the place variable and its related concepts beyond the present simple idea of delivery of due compensation is strongly recommended. Personnel practitioners appear to make only limited use of the place concepts

in their programs. The importance of the role of the union as a channel institution and of the marketing functions which the union performs within the channel suggests the need for the development of additional place conceptual tools for application to the personnel program. Perhaps the present failure to make fuller use of the place conceptual tools is a result of limited knowledge and skill on the part of practitioners rather than of the quality of the conceptual tool.

## The Promotion Variable

The promotion variable and its related concepts may well be the most overlooked conceptual area of the four tested. The low placement of the promotion variable (see Table 4-3) in relation to the other variables appears reasonable in light of the fact that mass advertising, personal selling, and sales promotion skills would be considered by personnel practitioners as of limited value to them. This is due, in part, to the "buyer" rather then "seller" role of the organization in the personnel marketplace.

The promotional concept, market segmentation, was scored highest by the twelve respondents, while the promotional concepts of management information system and kinds of sales presentations-need - satisfaction theory were scored lowest and third lowest of the forty concepts tested (see Table D-4). The respondents appear to do a relatively thorough job of market segmentation in selecting qualified candidates and in the use of mass advertising and media selection for identifying applicants. It appears that the respondents, in general, have a rather well-defined system for screening and segmenting unqualified applicants. However, they seem to do rather poorly at employee need-satisfaction identification, attempts to persuade the public or employees through promotional efforts, or to operate an effective two-way communications effort. Perhaps the personnel practitioner lacks the requisite skill in these promotional areas of personal selling and communications, or perhaps he does not visualize his role as one of institutional promoter and communicator. But this is a viable role for the personnel function, the communicator between employer and employee.

Table 3-14 provides additional insight upon which to base recommendations. The third lowest ranked marketing concept was a promotion concept, kinds of sales presentations--need-satisfaction theory. The respondents did not appear to endorse this concept strongly. They seem to be production (employer) oriented rather than market (employee) oriented and exhibit a low level of concern for employee need satisfaction. Perhaps the marketing concept is not working after all! Individually, four respondents scored the kinds of sales presentations--need-satisfaction theory at a relatively high level. Two respondents scored the concept low. It is suggested the latter two should concentrate additional effort on applying this theory to their personnel programs. The personnel practitioner should attempt to determine the job and

benefit needs of the prospective candidates and to satisfy these needs through better match-up of the candidates needs with the job benefits provided. Such need-satisfaction match-up provides for greater employee job satisfaction. While not shown in the research, it is interesting to note that these latter two respondents have experienced union strikes in the last few years. Perhaps increased identification of employee needsatisfaction through the application of this promotion concept might increase the effectiveness of their personnel program and possibly reduce or eliminate strike actions.

The promotional concept of management information system was the lowest scored of the forty concepts tested. In the age of sophisticated computers, one wonders at the low scoring of this most vital concept by the respondents. It would appear that while personnel practitioners all have voluminous employee files, they fail to make effective use of these in their day-to-day operations, that is, in terms of planning, training, manpower needs, and functional operations. Size of the institution and therefore the availability of computer hardware and software does not appear to be a consideration, as respondents from large and small institutions appear in both groups. The difference may be due to variations in knowledge and skill within the institution in the application of this concept. It is incomprehensible that so basic a tool as management information system goes undeveloped. Our recommendation is that all respondents should place particular

emphasis upon management information system and the use of such systems in manpower planning.

As the preceding sections have indicated, continuous efforts should be made in the search for and application of promotional conceptual tools to the personnel management discipline. This might well be the most productive marketing effort within that discipline.

#### Resumé--Recommendations

In operationalizing the xenolithic structure of marketing thought in the application of marketing concepts to personnel management, the following recommendations are made.

- Marketing concepts under consideration by the personnel practitioner which are viable for application to his personnel program must exhibit the characteristics of all four elements (A,U,I,E) and must do so at an appropriate level and in an integrated balance.
- 2. Concerted effort should be made by the respondents to the price variable concepts of full-line pricing, functional discounts, and quantity discounts as viable tools for application to his personnel program.
- 3. The product variable concepts of branding-identification, product life cycle, and portfolio concept are recommended as viable tools to the personnel practitioner to increase the effectiveness of his personnel program.
- 4. Place variable concepts physical distribution, channel leadership--the union as the channel captain, and middleman, functions performed when applied to the personnel program provide valuable insight into the collective bargaining function and the role of the union in this process.
- 5. The promotion variable concepts of market segmentation, kinds of sales presentations--need-satisfaction, and management information system should receive special attention by the personnel practitioner in application

to his personnel program to more fully utilize the communications effort to provide job satisfaction to the employee.

## The Challenge

It has been our purpose throughout this research effort to develop the xenolithic structure of marketing thought and to demonstrate the operationalization of this model by the application of marketing concepts to the personnel management discipline. Our research has provided documentary evidence that marketing concepts are being applied to and utilized in personnel management and lend insight to and increase the effectiveness of the institutions personnel program. We have identified not only various marketing concepts which are presently being applied but also several concepts which lend themselves to further application.

Our research effort has taken a step to verify the universality of marketing concepts and of their application to the personnel management discipline. The challenge now goes out to the acadamician, the student, and the practitioner to further advance the application of marketing concepts to personnel management; and to other disciplines.

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APPENDICES

APPENDIX A

# MARKETING CONCEPT STATEMENTS

# APPENDIX A

# MARKETING CONCEPT STATEMENTS

The statements to be included in the survey questionnaire were developed as shown in this Appendix according to the following format:

- I. Marketing Variables--Four marketing variables--Product, Promotion, Place, and Price--are listed.
  - A. Marketing Concepts--Ten marketing concepts for each marketing variable are listed.
    - Elements--Four element statements for each marketing concept are listed; an Application (lst) statement, a Utilization (2nd) statement, an Insight (3rd) statement, and an Effectiveness (4th) statement.

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## **PRODUCT CONCEPTS:**

## Total Product:

- 1. The total employee comes to work.
- 2. In our personnel operation, we recognize that the total employee (the total human being with all of their likes and dislikes, abilities and inabilities, physical and psychological characteristics) comes to work.
- 3. Recognition that it is the total employee (both physical and psychological) that comes to work provides the impetus for a broader personnel program.
- Recognition that it is the total employee that comes to work necessitates a personnel program which more effectively satisfies the job needs of the total employee.

## Tangible and Intangible Aspects of the Product:

- 5. When an employee is hired, we hire not only the employee's skills and time to do the job but also their physical, mental and psychological characteristics.
- 6. The personnel program includes provision for compensation for the work performed as well as reward for the "extras" which the employee brings to the workplace.
- Recognition that the employee possesses physical and psychological characteristics in addition to their level of job skill requires the personnel program to be broadened beyond the basic compensation function.
- 8. The broadened personnel program, which covers all of the personnel functions as opposed to a narrow personnel program which covers only part of the personnel functions, provides a more effective program for the institution.

Exchange (Transaction-Barter):

- 9. Wages and benefits paid represent an exchange for service performed.
- 10. A personnel program which provides wages, benefits, and working conditions which satisfies the employee's job needs is one of the objectives of the personnel program.

- 11. When an employee exchanges their labor for wages and benefits, the employee expects to receive a fair value in return.
- 12. The idea of the exchange of labor for wages and benefits requires the development of a "fair" compensation and benefits program.

Product Design:

- 13. In designing the personnel program, the job needs of the employees should be considered.
- 14. The personnel program, including compensation, benefits, safety, service awards, uniforms, etc., is designed to satisfy the needs of the employees, within the institution's financial limitations.
- 15. The personnel program must be designed within the job needs of the employees.
- 16. Personnel programs which recognize the job needs of employees will be effective in obtaining and retaining the caliber of employees which the institution requires.

Product Life Cycle:

- 17. We find that certain employee skills needed a few years ago are now outdated and new skills are needed today which were not needed only a few years ago.
- 18. Employee training and educational assistance programs are used to update old skills and/or to develop new skills.
- Recognition that old skills become outdated and new skills must be learned, necessitates the development of employee training and educational programs.
- 20. While it is possible to wait for employees to develop new skills on their everyday jobs, it is often quicker and in the long-run cheaper to provide training programs to update old skills or to develop new skills.

Portfolio Concept:

- 21. It is better to maintain a balanced work force rather than to have a large proportion of employees at the same skill level, at the same age level, etc.
- 22. When hiring new employees, we attempt to maintain a balanced work force by hiring people who will maintain the skill, age, etc. compositional spread of the work group.
- 23. The concept of a balanced work force provides for a training ground for less skilled employees and spreads out the risk of loss of employees through quits and retirement.
- 24. A balanced work force is a more efficient work force as it provides for the assignment of work to those who possess the appropriate skills without the necessity of assigning lower skill jobs to higher skilled and therefore higher paid employees.

Branding--Assurance of Quality:

- 25. The possession of a license, certificate, journeyman's card, etc. often identifies the technical skill level of certain classes of employees.
- 26. When recruiting for certain classes of employees, we often state the requirement of a specified license, certificate, journeyman's cared, etc.
- 27. The specification of possession of a certain license, certificate, journeyman's card, etc. provides a measurement of the skill level of those classes of employees.
- 28. Although we receive a number of applications from unqualified prospects, we generally find it more efficient to specify the type of license, certificate, journeyman's card, etc. necessary to perform certain classes of jobs.

Branding--Identification:

29. Service awards such as pins, watches, certificates of service, etc. should be given to employees to identify them as faithful long-term employees.

- 30. Service awards such as pins, watches, certificates of service, etc. are given to employees in recognition of their length of service to the institution.
- 31. The identification of employees who have performed longtime service as contributors to the continuing success of the organization provides the motivation for the continuation of the long-term relationship.
- 32. Identification of long-term employees through the service award program is a factor in retaining qualified employees.

Packaging--Appearance:

- 33. When employees are required to wear uniforms, the principal reasons are for identification and appearance.
- 34. The wearing of uniforms where required for certain employees is for the purposes of identification and to obtain a given level of appearance.
- 35. The consistancy of appearance by employees who wear uniforms provides a dimension of "togetherness" among the employees in the work group.
- 36. Employees, when wearing uniforms, are more acceptable to the campus community and therefore they are able to enter buildings, facilities, etc. with a minimum of challenge to more effectively perform their assigned work.

Packaging--Protection:

- 37. Safety protection of the employee on the job is an objective of the personnel program.
- 38. Where required, employees must wear protective clothing, glasses, shoes, hats, etc.
- 39. Protection of the employee through the use of safety equipment and clothing is essential to the operation of a good personnel program.
- 40. The cost of safety programs and protective devices, equipment, and clothing is more than offset by the cost savings of lost production, medical services, and Workers' Compensation payments.

**PROMOTION CONCEPTS:** 

Communications--Two-way Model:

- 41. Communications flow freely between the employer and the employee.
- 42. The personnel program makes provision for the flow of communications from the employer to the employee and for the receipt of feedback from the employee.
- 43. With two-way communications between employer and employee, both parties are kept aware of the personnel program offerings and the needs of each party.
- 44. The personnel program is more effective when the employer is informed as to the needs of the employee and the employee is informed of the benefits provided by the employer.

Management Information System:

- 45. Decisions regarding personnel program content are made based upon relevant information contained in the employee's personnel file.
- 46. The employer maintains a file (paper folders, computer bank, etc.) on each employee for the purpose of supplying relevant information for personnel decision making.
- 47. The employee's personnel file provides relevant information for the planning and control of the personnel program.
- 48. Information contained in the employees personnel file is analyzed and utilized to provide a basis for more effective manpower planning.

## Kinds of Sales Presentations--Selling-formula Theory:

- 49. The interview provides an opportunity for the interviewer to inform the prospective candidate of the benefit offerings of the personnel program.
- 50. In the interviewing step of the selection process, the interviewer attempts to inform the prospective candidate of the benefits offered and to convince the interviewee of the appropriateness of these benefits.

- 51. One interview technique used is to have the interviewer initially control the interview by first, informing the prospective candidate of the jobs and benefits offered, second, determining the related needs of the prospective candidate, and third, showing how these needs will be satisfied by the job and benefits offered.
- 52. Use of the structured interview to inform the prospective candidate of the organization's benefit offerings substantially reduces the interview time required for each prospective candidate.

## Kinds of Sales Presentations--Need-satisfaction Theory:

- 53. The interview may serve as a means for the interviewer to determine the job and benefit needs of the prospective candidate.
- 54. At the start of the interview, the interviewer attempts to determine the job and benefit needs of the prospective candidate.
- 55. An appropriate match-up of the prospective candidates needs with the benefits provided is required to avoid future employee job dissatisfaction.
- 56. The interviewer is often better informed as to the benefits which are provided to the prospective candidate than is the candidate and is therefore better able to match-up the candidates needs with the benefits provided.

## Mass Advertising:

- 57. Advertising is a viable method of obtaining a large number of potential candidates for job openings.
- 58. The personnel office makes use of several kinds of media for the advertising of job openings in an effort to obtain a number of potential candidates.
- 59. The use of advertising in the recruitment process is an appropriate method to inform the prospective candidates of job openings and promotional opportunities.
- 60. The cost of advertising to obtain prospective candidates is generally low per prospective candidates identified.

## Advertising -- To Inform:

- 61. Advertising and/or publicity techniques are used by the employer to keep the working force informed.
- 62. Several types of media, such as direct mailings, newspaper articles, radio announcements, are used by the personnel office to keep employees informed.
- 63. Negating other considerations, satisfied employees are usually informed employees.
- 64. Keeping employees informed regarding their benefits, working conditions, etc. can contribute to the job satisfaction of the employee and to a resultant decrease in employee turnover.

## Advertising -- To Persuade:

- 65. Advertising and publicity techniques are used by the employer to persuade present and potential employees.
- 66. News releases, direct mailings, and other types of communications are used by the employer to persuade employees of the benefits of one employer over those of other employers.
- 67. The techniques of persuasion are often applied to the solution of grievances and to the give-and-take of collective bargaining.
- 68. Effective communications between the employer and the employee leads to the employee's correction of an improper attitude and/or the employer's correction of an inappropriate standard or demand.

Media Selection:

- 69. Advertisements for locating prospective candidates for job openings should be placed in different media dependent upon what skills are desired and if applicants with these skills tend to read such media.
- 70. Job openings are announced in campus publications, local newspapers, trade journals, specific media (such as the Chronicle of Higher Education) etc. dependent upon how various skill groups tend to read different media.

- 71. Potential candidates for job openings tend to "shop" for jobs in media which they believe are most likely to list jobs in their skill and/or interest areas.
- 72. By knowing how various groups of potential candidates "shop" for job opportunities, the personnel office can increase its recruitment effectiveness by concentrating its advertising efforts to these applicable media.

Personal Selling -- Qualifying the Prospect:

- 73. Prospective candidates for job openings must be qualified for the job.
- 74. In the identification of prospective candidates each candidate must be "qualified", i.e., it must be determined that the candidate possesses the necessary qualifications to perform the job.
- 75. Recognition that the truly qualified prospective candidate possesses not only the necessary skills to perform the job but also the willingness to exchange their labor for the compensation received, provides the employer with two criteria to more effectively evaluate prospective candidates.
- 76. Recognition that the truly qualified prospective candidate possesses not only the necessary skills to perform the job but also the willingness to exchange their labor for the compensation received, provides the employer with both a "skill" and a "willingness" basis for more effectively evaluating prospective candidates.

Market Segmentation:

- 77. In the recruitment and selection process, an attempt is made to identify and separate the qualified and unqualified prospective candidates.
- 78. In the compilation of the list of prospective candidates, the personnel office initially screens out the unqualified applicants.
- 79. Applicants for job openings generally contain unqualified candidates who must be identified and/or screened out.

80. The screening out of unqualified applicants early in the recruitment and selection process can increase the amount of time available for interviewing qualified prospective candidates and/or reduce the amount of time necessary for the selection process at the operating department level.

#### PLACE CONCEPTS:

#### Total Systems Concept:

- 81. The total personnel program should be integrated such that all functions performed contribute to the overall objectives of the personnel function.
- 82. Although certain functions performed by the personnel office may not now be operating at their most effective level, our objective is not to optimize the performance of each individual function but rather the optimization of an effective overall personnel program.
- 83. The development of a totally effective and balanced personnel program should take precedence over the development of a single function.
- 84. In the personnel program, there is a trade-off of costs between the various functions performed in an effort to develop the most effective total program.

## Payoff-Tolerance Function:

- 85. It is recognized that there must be a balance between what is required of the employee and what the employee expects in return.
- 86. Every effort is made to assure that the demands made on the employee are balanced by the value of what the employee receives.
- 87. When the demands made on the employee exceed the payoff which the employee receives, the employee becomes dissatisfied with their job situation.
- 88. The recognition that the payoff which the employee receives must balance the demand made upon the employee necessitates the development of a personnel program which establishes such balance in an effort to offset the costs involved in the loss and replacement of qualified employees.

**Physical Distribution:** 

- 89. The development of a personnel program will be ineffective unless and until the provisions of such a program (i.e., compensation, benefits, safety, etc.) are delivered to the entitled employee.
- 90. The personnel program involves not only the development of the program provisions but includes the delivery of these provisions to the entitled employee.
- 91. Implementation and delivery of the labor contract provisions to the entitled employee is an important part of the bargaining and contract administration process.
- 92. Failure to deliver to the employee what is promised or agreed upon can become a basis for the loss of qualified employees, or for strike action by the union.

Middleman, The Union as the:

- 93. The recognized union often fulfills the role of an intermediary between the employer and the employee.
- 94. The recognized union acts as an intermediary between the employer and the employee in the solving of grievances and the determination of wages, hours and working conditions.
- 95. Where employees are represented by a recognized union, the union can "make or break" the employer by its efforts to restrict or enhance the delivery of personnel program provisions to the employee.
- 96. The positive efforts of many personnel program provisions can be nullified by the unions refusal to allow delivery of such program benefits to the employee.

Middleman, Functions Performed:

- 97. The recognized union views at least a portion of its role as the buyer (i.e., purchasers) of goods and services for its membership through contract negotiations.
- 98. In contract negotiations, the union bargaining committee may act as a buyer of goods and services from the employer for their membership.

- 99. When negotiating a labor contract with a recognized union bargaining committee, it is important to remember that the committee will agree to contract language which they believe the mmebership is willing to ratify.
- 100. Considerable time delays are experienced during contract negotiations with labor unions due to the union's bargaining committee insistance that a given proposal "cannot be sold to (i.e., will not be ratified by) the membership."

Direct or Indirect Channels:

- 101. While certain changes in the personnel program can be made and implemented at the employer's option, implementation of certain other changes must await acceptance by the union.
- 102. Interviewing techniques, benefit record keeping procedures, organizational structure, etc. may be changed as desired. However, implementation of contract changes cannot be made without prior acceptance of the union.
- 103. Changes in the personnel program which would effectively alter union contract provisions must be anticipated and developed in advance in order to obtain union acceptance prior to implementation.
- 104. The failure to anticipate and develop desired changes in the personnel program can often result in ineffectiveness in the program for extended periods of time while awaiting future contract negotiations and/or union acceptance.

Channel Leadership -- the Union as the Channel Captain:

- 105. The union serves as a control "valve" which can regulate the flow of wages and benefits from the employer to the employees which it represents.
- 106. Because of its perceived ability to control the flow of wages and benefits from the employer to its employee membership, the union is requested to place representatives on certain committees whose function it is to develop personnel program changes which affect union members.
- 107. Union representatives should be requested to serve on committees whose function it is to develop personnel program changes.

108. Personnel program changes which have been developed in conjunction with union representative input are usually more acceptable to the union than are changes which are developed without union input.

Pushing and Pulling Through the Channels:

- 109. The employer is able to gain acceptance of its proposals by the union by the use of three approaches, (1) acceptance by the union leadership, (2) acceptance by the membership and their demanding of acceptance by the leadership, or (3) a combination thereof.
- 110. The employer may achieve union acceptance of personnel changes by presenting the proposal directly to the union leadership and/or alternatively, present the proposal to the membership through the contract ratification process.
- 111. Programs and changes in personnel programs need to be "sold" to the union and the employees to achieve acceptance.
- 112. Personnel program changes which would effectuate savings and/or improve the personnel operation often cannot be implemented due to the withholding of acceptance by the union leadership, the employee membership, or both.

Product-Market Commitment:

- 113. The employer and the union are both primarily interested in the welfare of the same target, the employee.
- 114. In proposing personnel program changes, the employer may propose and/or the union may demand "grandfather clause" exceptions to avoid injury to individual employees.
- 115. The identification of a common target, the welfare of the employee, provides for a more rational common objective and integrated effort by the employer and the union.
- 116. The identification of, and a concentration of effort by the employer and the union toward the common target, the employee, results in a more effective integrated effort.

Time and Space Utility:

- 117. For a job opportunity to exist for a prospective candidate, it must be the right job, at the right place, and at the right time; in other words, for the prospective candidate to consider a job, it must be within their skill level, it must be located within an acceptable distance from their residence, and it must become available within a reasonable time period.
- 118. When job openings occur, recruitment is generally carried out within the work group, within the job market area, or with those who are willing to relocate to the job location.
- 119. The best source of potential candidates to fill job openings are those individuals who possess the necessary skills and who presently live within the job market area or are willing to relocate to the job location.
- 120. Expansion of the recruitment effort to include unqualified individuals, and individuals outside the job market area who are unwilling to relocate, are expensive and generally do not produce viable prospective candidates.

## **PRICE CONCEPTS:**

## Price versus Nonprice Competition:

- 121. In the recruitment process for potential candidates, we generally stress the wage level of the job opening over the fringe benefits which are available to employees.
- 122. When posting position openings and in the advertising for applicants, such notices usually consist of a brief job description, specification, and wage range with only minor reference to available fringe benefits.
- 123. When there is extreme competition in the job market, it becomes necessary in recruiting potential candidates to stress fringe benefits available to employees as well as the wage range of the job.
- 124. We have found on occasion that while we may be unable to compete in the job market on the basis of wages along, we are often able to fill job openings with qualified candidates becaue of the fringe benefit package and working conditions which our institution is able to offer.

List Price:

- 125. A basic wage rate or wage range is established for each classification and/or job position.
- 126. Based upon the job description and specifications, a basic wage rate or wage range is established for each classification and/or job position.
- 127. The basic wage rate or wage range for each position establishes the parameters of money compensation for each position.
- 128. The parameters of money compensation established by the basic wage rate or wage range provides a measure of assurance that the labor and skills which an employee brings to the job will not be over or under compensated for.

**Discounts and Allowances:** 

- 129. Variations in the established basic wage rate or wage range may be made where circumstances warrant such changes.
- 130. The compensation received by the employee may be varied from the established basic wage rate or wage range (i.e., pay per hour worked) through the overtime, longevity, vacation, etc. provisions of the personnel program.
- 131. The total compensation (wages and benefits) which a given employee receives is based not only upon their wage rate but also upon other conditions of employment such as length of service with the employer.
- 132. The total cost to the employer to purchase a given employee's services includes the wages paid plus the fringe benefits.

Functional Discounts:

133. Different employees may be paid at different wage rates based upon differences in the skill level at which the employee functions (i.e., works).

- 134. Employees who perform at a high skill level customarily receive a higher base wage rate due to their ability to perform the higher skilled jobs within their trade or professional areas.
- 135. While market supply and demand may be factors in wage rate differentials, an additional factor is the accepted practice that the performance at higher levels of skill commands higher payment in terms of higher wage rates.
- 136. The most efficient level of compensation which the employer provides is that which compensates the employee at the appropriate level for the work which the employee performs.

## Quantity Discounts:

- 137. Employees may receive bonuses based upon length of service, such as longevity pay, or based upon performance, such as exceeding the established minimum production standards (i.e., piece rates).
- 138. Compensation above and beyond the established wage rate may be awarded to employees for performance which exceeds the established standards or where the employee has remained with the organization for a given length of time.
- 139. Employees who exceed the norms of production, length of service, etc., usually perceive that they are due additional compensation for such performance.
- 140. Additional compensation to employees who exceed accepted norms may well be more than offset by the savings in costs necessary to replace the employee should they terminate.

### Unit Pricing:

- 141. The wage schedule is generally established relative to the number of units of the employee's services which the employer expects to purchase (i.e., hours).
- 142. The wage rate received by an employee is normally based upon some unit of time for which the employee works and is paid (i.e, \$/hour, \$/month, etc.).
- 143. Per unit pricing of the employee's services purchased by the employer such as square feet cleaned, number of food items served, number of baked goods produced, etc., may well be a sound basis for the establishment of a piecerate compensation plan.

144. The straight piece-rate compensation plan provides that the employer must pay only for the value of the employee services pruchased and that the employee provide only the amount of services for which they are compensated.

Turnover (Stockturn) Rate:

- 145. The employee turnover rate may serve as one measure of the quality of the personnel program.
- 146. While some level of employee turnover is acceptable and may even be desirable, excessive employee turnover may well indicate an inadequate personnel program.
- 147. Employees who perceive their contribution to the employer to be at an imbalance with the compensation received attempt to adjust the level of their contribution to reestablish the balance, including termination, if the imbalance cannot be otherwise adjusted.
- 148. Excessive employee turnover is a large cost factor to the employer not only due to the loss of needed skills but also due to the cost of recruitment, hiring, training, etc. of replacement employees.

Full-line Pricing:

- 149. Wage schedules for a given group of employees are established to cover a number of employees, a number of jobs, and a number of skill levels.
- 150. Established wage schedules cover a number of employees, a number of jobs, and a number of skill levels.
- 151. Not only must an employee be fairly compensated for the services which they provide, the wage schedule must provide such compensation in an appropriate relationship to the level of compensation paid to other employees.
- 152. The wage rate which an employee receives may be more acceptable to the employee if their wage appears to be logically related to the wage rates received by other employees.
#### **Penetration Pricing:**

- 153. The employer may be able to establish a lower wage rate in situations where the skill level required is low and a large number of applicants can be obtained for the limited number of jobs available.
- 154. The wage rate for lower skilled jobs are established at a relatively low level when it is fairly easy to obtain the number of employees needed to fill these jobs.
- 155. The wage rate established for certain jobs is adjusted in relationship to the level of demand for such jobs.
- 156. Establishment of the wage rate for certain jobs at a level in excess of that rate necessary to fill the job with appropriately skilled employees leads to excessive labor costs for the employer.

#### Skimming Pricing:

- 157. Some employers establish higher than market wage rates in an effort to obtain only the most highly skilled employees.
- 158. Certain employers willingly pay wage rates in excess of that necessary to obtain a qualified employee for a job in an effort to obtain the "most qualified" employee.
- 159. While the "best" employee possesses the minimum qualifications necessary to competently perform the job, the "most qualified" employee may possess qualifications beyond those necessary and may well be "underemployed" on the job.
- 160. "Underemployed" employees become dissatisfied on a given job when their full skills cannot be utilized and resort to "job hopping" or termination in an attempt to make fuller use of their total skills.

APPENDIX B

SURVEY QUESTIONNAIRE

APPENDIX B

Room 204, North Hall Central Michigan University Mt. Pleasant, MI 48859

Subject: Survey Questionnaire

Attached hereto is a copy of the survey questionnaire which you indicated you would complete based upon the current personnel practices at your institution.

As you know, the completed questionnaire will serve as a portion of the input data for my dissertation research. You and your institution will only be identified as a portion of the population sample. Data from your questionnaire will be composited with the entire sampling prior to inclusion in the dissertation. Data specific to your completed questionnaire will not be shown.

Upon completion of the questionnaire, please insert it in the enclosed self-addressed envelope and mail to my attention.

Thank you for your time, effort, and contribution in behalf of this research effort.

Very truly yours,

G. Dean Kortge Associate Professor Dear Respondent:

Attached hereto is a survey questionnaire consisting of 160 statements regarding the personnel management discipline. Please read each statement carefully. From the point of view of how it is presently being done in your own institution, and based upon your knowledge of your own institution's personnel policies, procedures, and day-to-day operations, please respond to each statement by circling one of the following:

SA - if you STRONGLY AGREE
A - if you tend to AGREED
U - if you are UNCERTAIN or UNDECIDED
D - if you tend to DISAGREE
SD - if you STRONGLY DISAGREE

after each statement. Be sure to respond to EACH statement.

#### Example:

1. The personnel functions should be centralized within the organization.

SA A U D SD

If you tend to agree, circle A If you have strong agreement feelings, circle SA If you tend to disagree, circle D If you have strong disagreement feelings, circle SD If you are uncertain or undecided regarding your feelings, circle U

<u>Note</u>: Your answers are to be based upon your current practices.

### SURVEY QUESTIONNAIRE

		Strongly Agree	Agree	Uncertain or Undecided	Disagree	Strongly Disagree
1.	The employer may achieve union acceptance of personnel changes by presenting the proposal directly to the union leader- ship and/or alternatively, present the proposal to the membership through the contract ratification process.	SA	A	U	D	SD
2.	Employees who perform at a high skill level customarily receive a higher base wage rate due to their ability to perform the higher skilled jobs within their trade or professional areas.	SA	A	U	D	SD
3.	Personnel program changes which have been developed in conjunction with union representative input are usually more acceptable to the union than are changes which are developed without union input.	SA	A	U	D	SD
4.	A basic wage rate or wage range is established for each classification and/or job position.	SA	A	U	D	SD
5.	Based upon the job description and speci- fications, a basic wage rate or wage range is established for each classi- fication and/or job position.	SA	A	U	D	SD
6.	Programs and changes in personnel programs need to be "sold" to the union and the employees to achieve acceptance.	SA	A	U	D	SD
7.	The most efficient level of compensation which the employer provides is that which compensates the employee at the appro- priate level for the work which the employee performs.	SA	А	U	D	SD

8.	Several types of media, such as direct mailings, newspaper articles, radio announcements, are used by the personnel office to keep employees informed.	SA	А	U	D	SD
9.	The wage rate which an employee receives may be more acceptable to the employee if their wage appears to be logically related to the wage rates received by other employees.	SA	А	U	D	SD
10.	It is better to maintain a balanced work force rather than to have a large pro- portion of employees at the same skill level, at the same age level, etc.	SA	A	U	D	SD
11.	Variations in the established basic wage rate or wage range may be made where circumstances warrant such changes.	SA	А	U	D	SD
12.	Implementation and delivery of the labor contract provisions to the entitled employee is an important part of the bargaining and contract administration process.	SA	A	U	D	SD
13.	At the start of the interview, the inter- viewer attempts to determine the job and benefit needs of the prospective candidate.	SA	A	U	D	SD
14.	The recognized union views at least a portion of its role as the buyer (i.e. purchaser) of goods and services for its membership through contract negotiations.	SA	A	U	D	SD
15.	Not only must an employee be fairly com- pensated for the services which they provide, the wage schedule must provide such compensation in an appropriate relationship to the level of compensation paid to other employees.	SA	A	U	D	SD
16.	We have found on occasion that while we may be unable to compete in the job market on the basis of wages alone, we are often able to fill job openings with qualified candidates because of the fringe benefit package and working conditions which our institution is able to offer.	SA	A	U	D	SD

17.	Per unit pricing of the employee's services purchased by the employer such as square feet cleaned, number of food items served, number of baked goods produced, etc., may well be a sound basis for the establishment of a piece- rate compensation plan.	SA	A	U	D	SD
18.	Interviewing techniques, benefit record keeping procedures, organizational struc- ture, etc. may be changed as desired. However, implementation of contract changes cannot be made without prior acceptance of the union.	SA	A	U	D	SD
19.	The personnel program involves not only the development of the program provisions but includes the delivery of these pro- visions to the entitled employee.	SA	A	U	D	SD
20.	In our personnel operation, we recognize that the total employee (the total human being with all of their likes and dislikes, abilities and inabilities, physical and psychological characteristics) comes to work.	SA	A	U	D	SD
21.	Where employees are represented by a recognized union, the union can "make or break" the employer by its efforts to restrict or enhance the delivery of personnel program provisions to the employees.	SA	A	U	D	SD
22.	When employees are required to wear uniforms, the principal reasons are for identification and appearance.	SA	А	U	D	SD
23.	"Underemployed" employees become dissatis- fied on a given job when their full skills cannot be utilized and resort to "job hopping" or termination in an attempt to make fuller use of their total skills.	SA	A	U	D	SD
24.	The broadened personnel program, which covers all of the personnel functions as opposed to a narrow personnel program which covers only part of the personnel functions, provides a more effective program for the institution.	SA	A	U	D	SD

25.	Employees, when wearing uniforms, are more acceptable to the campus community and therefore they are able to enter buildings, facilities, etc. with a minimum of challenge to more effectively perform their assigned work.	SA	A	U	D	SD
26.	Protection of the employee through the use of safety equipment and clothing is essential to the operation of a good personnel program.	SA	A	U	D	SD
27.	The recognition that the payoff which the employee receives must balance the demand made upon the employee necessitates the development of a personnel program which establishes such balance in an effort to offset the costs involved in the loss and replacement of qualified employees.	SA	A	U	D	SD
28.	When hiring new employees, we attempt to maintain a balanced work force by hiring people who will maintain the skill, age, etc. compositional spread of the work group.	SA	A	U	D	SD
29.	When there is extreme competition in the job market, it becomes necessary in recruiting potential candidates to stress fringe benefits available to employees as well as the wage range of the job.	SA	A	U	D	SD
30.	While certain changes in the personnel program can be made and implemented at the employer's option, implementation of certain other changes must await accept- ance by the union.	SA	A	U	D	SD
31.	Considerable time delays are experienced during contract negotiations with labor unions due to the union's bargaining committee insistance that a given pro- posal "cannot be sold to (i.e. will not be ratified by) the membership."	SA	A	U	D	SD
32.	Advertising and/or publicity techniques are used by the employer to keep the working force informed.	SA	A	U	D	SD

33.	When an employee exchanges their labor for wages and benefits, the employee expects to receive a fair value in return.	SA	A	U	D	SD
34.	Potential candidates for job openings tend to "shop" for jobs in media which they believe are most likely to list jobs in their skill and/or interest areas.	SA	A	U	D	SD
35.	Established wage schedules cover a number of employees, a number of jobs, and a number of skill levels.	SA	A	U	D	SD
36.	For a job opportunity to exist for a pros- pective candidate, it must be the right job, at the right place, and at the right time; in other words, for the prospective candidate to consider a job, it must be within their skill level, it must be located within an acceptable distance from their residence, and it must become avail- able within a reasonable time period.	SA	A	U	D	SD
37.	Although certain functions performed by the personnel office may not now be operating at their most effective level, our objec- tive is not to optimize the performance of each individual function but rather the optimization of an effective overall personnel program.	SA	A	U	D	SD
38.	The wage rate received by an employee is normally based upon some unit of time for which the employee works and is paid (i.e. \$/hr., \$/month, etc.).	SA	А	U	D	SD
39.	Service awards such as pins, watches, certificates of service, etc. should be given to employees to identify them as faithful long-term employees.	SA	A	U	D	SD
40.	Personnel program changes which would effec- tuate savings and/or improve the personnel operation often cannot be implemented due to the withholding of acceptance by the union leadership, the employee membership, or both.	SA	A	U	D	SD
41.	Advertising is a viable method of obtaining a large number of potential candidates for job openings.	SA	A	U	D	SD

42.	The total personnel program should be integrated such that all functions performed contribute to the overall objectives of the personnel function.	SA	A	U	D	SD
43.	In designing the personnel program, the job needs of the employees should be considered.	SA	Α	U	D	SD
44.	The employer maintains a file (paper folders, computer bank, etc.) on each employee for the purpose of supplying relevant information for personnel decision making.	SA	A	U	D	SD
45.	The employer is able to gain acceptable of its proposals by the union by the use of 3 approaches: (1) acceptance by the union leadership, (2) acceptance by the member- ship and their demanding of acceptance by the leadership, or (3) a combination thereof.	SA	A	U	D	SD
46.	The interviewer is often better informed as to the benefits which are provided to the prospective candidate than is the candidate and is therefore better able to match-up the candidates needs with the benefits provided.	SA	A	U	D	SD
47.	Union representatives should be requested to serve on committees whose function it is to develop personnel program changes.	SA	A	U	D	SD
48.	Recognition that the employee possesses physical and psychological characteristics in addition to their level of job skill requires the personnel program to be broadened beyond the basic compensation function.	SA	A	U	D	SD
49.	Negating other considerations, satisfied employees are usually informed employees.	SA	A	U	D	SD
50.	The union serves as a control "valve" which can regulate the flow of wages and benefits from the employer to the employees which it represents.					

51.	When negotiating a labor contract with a recognized union bargaining committee, it is important to remember that the committee will agree to contract language which they believe the membership is willing to ratify.	SA	А	U	D	SD
52.	Applicants for job openings generally contain unqualified candidates who must be identified and/or screened out.	SA	A	U	D	SD
53.	The basic wage rate or wage range for each position establishes the parameters of money compensation for each position.	SA	A	U	D	SD
54.	Certain employers willingly pay wage rates in excess of that necessary to obtain a qualified employee for a job in an effort to obtain the "most qualified" employee.	SA	A	U	D	SD
55.	The consistency of appearance by employees who wear uniforms provides a dimension of "togetherness" among the employees in the work group.	SA	A	U	D	SD
56.	Communications flow freely between the employer and the employee.	SA	A	U	D	SD
57.	Recognition that the truly qualified pros- pective candidate possesses not only the necessary skills to perform the job but also the willingness to exchange their labor for the compensation received, provides the employer with both a "skill" and a "willingness" basis for more effectively evaluating prospective candidates.	SA	A	U	D	SD
58.	In contract negotiations, the union bargaining committee may act as a buyer of goods and services from the employer for their membership.	SA	A	U	D	SD

59. Failure to deliver to the employee what is promised or agreed upon can become a basis for the loss of qualified employees, or for strike action by the union. SA A U D SD

60.	Decisions regarding personnel program content are made based upon relevant information contained in the employee's personnel file.	SA	A	U	D	SD
61.	Employees who perceive their contribution to the employer to be at an imbalance with the compensation received attempt to adjust the level of their contribution to reestab- lish the balance, including termination, if the imbalance cannot be otherwise adjusted.	SA	A	U	D	SD
62.	The interview provides an opportunity for the interviewer to inform the prospective candidate of the benefit offerings of the personnel program.	SA	A	U	D	SD
63.	The possession of a license, certificate, journeyman's card, etc. often identifies the technical skill level of certain classes of employees.	SA	Α	U	D	SD
64.	The cost of safety programs and protective devices, equipment, and clothing is more than offset by the cost savings of lost production, medical services, and Workers' Compensation payments.	SA	A	U	D	SD
65.	The total cost to the employer to purchase a given employee's services includes the wages paid plus the fringe benefits.	SA	A	U	D	SD
66.	The cost of advertising to obtain pros- pective candidates is generally low per prospective candidates identified.	SA	А	U	D	SD
67.	The parameters of money compensation estab- lished by the basic wage rate or wage range provides a measure of assurance that the labor and skills which an employee brings to the job will not be over or under compensated for.	SA	Α	U	D	SD
68.	Different employees may be paid at differ- ent wage rates based upon differences in the skill level at which the employee functions (i.e. works).	SA	A	U	D	SD

69.	The techniques of persuasion are often applied to the solution of grievances and to the give-and-take of collective bargaining.	SA	A	U	D	SD
70.	By knowing how various groups of potential candidates "shop" for job opportunities, the personnel office can increase its recruitment effectiveness by concentrating its advertising efforts to these applic- able media.	SA	A	U	D	SD
71.	The employer and the union are both pri- marily interested in the welfare of the same target, the employee.	SA	A	U	D	SD
72.	The identification of, and a concentration of effort by the employer and the union toward the common target, the employee, results in a more effective integrated effort.	SA	A	U	D	SD
73.	Identification of long-term employees through the service award program is a factor in retaining qualified employees.	SA	A	U	D	SD
74.	While market supply and demand may be factors in wage rate differentials, an additional factor is the accepted practice that the performance at higher levels of skill commands higher payment in terms of higher wage rates.	SA	A	U	D	SD
75.	Recognition that it is the total employee (both physical and psychological) that comes to work provides the impetus for a broader personnel program.	SA	A	U	D	SD
76.	In the interviewing step of the selection process, the interviewer attempts to inform the prospective candidate of the benefits offered and to convince the interviewee of the appropriateness of these benefits.	SA	A	U	D	SD
77.	In proposing personnel program changes, the employer may propose and/or the union may demand "grandfather clause" exceptions to avoid injury to individual employees.	SA	A	U	D	SD

78.	Information contained in the employees per- sonnel file is analyzed and utilized to provide a basis for more effective manpower planning.	SA	A	U	D	SD
79.	The recognized union often fulfills the role of an intermediary between the employer and the employee.	SA	A	U	D	SD
80.	Safety protection of the employee on the job is an objective of the personnel program.	SA	Α	U	D	SD
81.	Recognition that the truly qualified pros- pective candidate possesses not only the necessary skills to perform the job but also the willingness to exchange their labor for the compensation received, pro- vides the employer with two criteria to more effectively evaluate prospective candidates.	SA	A	U	D	SD
82.	When job openings occur, recruitment is generally carried out within the work group, within the job market area, or with those who are willing to relocate to the job location.	SA	А	U	D	SD
83.	Advertisements for locating prospective candidates for job openings should be placed in different media dependent upon what skills are desired and if appli- cants with these skills tend to read such media.	SA	A	U	D	SD
84.	When posting position openings and in the advertising for applicants, such notices usually consist of a brief job descrip- tion, specification, and wage range with only minor reference to available fringe benefits.	SA	A	U	D	SD
85.	With two-way communications between employer and employee, both parties are kept aware of the personnel program offerings and the needs of each party.	SA	А	U	D	SD

86.	A balanced work force is a more effi- cient work force as it provides for the assignment of work to those who possess the appropriate skills without the necessity of assigning lower skill jobs to higher skilled and therefore higher paid employees.	SA	Α	U	D	SD
87.	While some level of employee turnover is acceptable and may even be desir- able, excessive employee turnover may well indicate an inadequate personnel program.	SA	Α	U	D	SD
88.	Service awards such as pins, watches, certificates of service, etc. are given to employees in recognition of their length of service to the institution.	SA	A	U	D	SD
89.	While the "best" employee possesses the minimum qualifications necessary to competently perform the job, the "most qualified" employee may possess quali- fications beyond those necessary and may well be "underemployed" on the job.	SA	A	U	D	SD
90.	The idea of the exchange of labor for wages and benefits requires the development of a "fair" compensation and benefits program.	SA	A	U	D	SD
91.	Where required, employees must wear protective clothing, glasses, shoes, hats, etc.	SA	А	U	D	SD
92.	Recognition that old skills become outdated and new skills must be learned, necessitates the development of employee training and educational programs.	SA	A	U	D	SD
93.	The wearing of uniforms where required for certain employees is for the purposes of identification and to obtain a given level of appearance.	SA	А	U	D	SD
94.	The employer may be able to establish a lower wage rate in situations where the skill level required is low and a large number of applicants can be obtained for the listed number of jobs available.	SA	Α	U	D	SD

95.	The positive efforts of many personnel program provisions can be nullified by the unions refusal to allow delivery of such program benefits to the employee.	SA	Α	U	D	SD
96.	An appropriate match-up of the prospective candidates needs with the benefits pro- vided is required to avoid future employee job dissatisfaction.	SA	A	U	D	SD
97.	When recruiting for certain classes of employees, we often state the require- ment of a specified license, certificate, journeyman's card, etc.	SA	A	U	D	SD
98.	The use of advertising in the recruitment process is an appropriate method to inform the prospective candidates of job open- ings and promotional opportunities.	SA	A	U	D	SD
99.	The personnel program is more effective when the employer is informed as to the needs of the employee and the employee is informed of the benefits provided by the employer.	SA	A	U	D	SD
100.	Additional compensation to employees who exceed accepted norms may well be more than offset by the savings in costs necessary to replace the employee should they terminate.	SA	A	U	D	SD
101.	Although we receive a number of applica- tions from unqualified prospects, we generally find it more efficient to specify the type of license, certificate, journeyman's card, etc. necessary to perform certain classes of jobs.	SA	A	U	D	SD
102.	Recognition that it is the total employee that comes to work necessitates a per- sonnel program which more effectively satisfies the job needs of the total employee.	SA	A	U	D	SD
103.	Wage schedules for a given group of employees are established to cover a number of employees, a number of jobs, and a number of skill levels.	SA	A	U	D	SD

104.	Expansion of the recruitment effort to include unqualified individuals, and individuals outside the job market who are unwilling to relocate, are expensive and generally do not produce viable pros- pective candidates.	SA	A	U	D	SD
105.	In the identification of prospective candidates each candidate must be "qualified" i.e. it must be determined that the candidate possesses the neces- sary qualifications to perform the job.	SA	A	U	D	SD
106.	One interview technique used is to have the interviewer initially control the interview by first, informing the prospective candidate of the jobs and benefits offered, second, determining the related needs of the prospective candidate, and third, showing how these needs will be satisfied by the job and benefits offered.	SA	A	U	D	SD
107.	The personnel program includes provision for compensation for the work performed as well as reward for the "extras" which the employee brings to the workplace.	SA	A	U	D	SD
108.	While it is possible to wait for employees to develop new skills on their everyday jobs, it is often quicker and in the long-run cheaper to provide training programs to update old skills or to develop new skills.	SA	A	U	D	SD
109.	The personnel program, including compen- sation, benefits, safety, service awards, uniforms, etc., is designed to satisfy the needs of the employees, within the institution's financial limitations.	SA	A	U	D	SD
110.	Job openings are announced in campus publications, local newspapers, trade journals, specific media (such as the Chronicle of Higher Education) etc. dependent upon how various skill groups tend to read different media.	SA	A	U	D	SD

111.	The failure to anticipate and develop desired changes in the personnel program can often result in ineffectiveness in the program for extended periods of time	SA	A	U	D	SD
	while awaiting future contract negotia- tions and/or union acceptance.					
112.	The identification of a common target, the welfare of the employee, provides for a more rational common objective and inte- grated effort by the employer and the union.	SA	A	U	D	SD
113.	Compensation above and beyond the estab- lished wage rate may be awarded to employees for performance which exceeds the established standards or where the employee has remained with the organi- zation for a given length of time.	SA	A	U	D	SD
114.	In the compilation of the list of prospec- tive candidates, the personnel office initially screens out the unqualified applicants.	SA	A	U	D	SD
115.	The straight piece-rate compensation plan provides that the employer must pay only for the value of the employee services purchased and that the employee provide only the amount of services for which they are compensated.	SA	A	U	D	SD
116.	When the demands made on the employee exceed the payoff which the employee receives, the employee becomes dis- satisfied with their job situation.	SA	A	U	D	SD
117.	We find that certain employee skills needed a few years ago are now outdated and new skills are needed today which were not needed only a few years ago.	SA	A	U	D	SD
118.	The specification of possession of a certain license, certificate, journeyman's card, etc. provides a measurement of the skill level of those classes of employees.	SA	А	U	D	SD

119.	The total compensation (wages and benefits) which a given employee receives is based not only upon their wage rate but also upon other conditions of employment such as length of service with the employer.	SA	A	U	D	SD
120.	The wage rate established for certain jobs is adjusted in relationship to the level of demand for such jobs.	SA	A	U	D	SD
121.	The development of a personnel program will be ineffective unless and until the pro- visions of such a program (i.e. compensa- tion, benefits, safety, etc.) are delivered to the entitled employee.	SA	A	U	D	SD
122.	Establishment of the wage rate for certain jobs at a level in excess of that rate necessary to fill the job with appro- priately skilled employees leads to excessive labor costs for the employer.	SA	A	U	D	SD
123.	The wage rate for lower skilled jobs are established at a relatively low level when it is fairly easy to obtain the number of employees needed to fill these jobs.	SA	A	U	D	SD
124.	Employees who exceed the norms of produc- tion, length of service, etc. usually perceive that they are due additional compensation for such performance.	SA	A	U	D	SD
125.	Employee training and educational assist- ance programs are used to update old skills and/or to develop new skills.	SA	А	U	D	SD
126.	The employee's personnel file provides relevant information for the planning and control of the personnel program.	SA	Α	U	D	SD
127.	Wages and benefits paid represent an exchange for service performed.	SA	A	U	D	SD
128.	The concept of a balanced work force provides for a training ground for less skilled employees and spreads out the risk of loss of employees through quits and retirement.	SA	A	U	D	SD

129.	Changes in the personnel program which would effectively alter union contract provisions must be anticipated and	SA	A	U	D	SD
	union acceptance prior to implementation.					
130.	Advertising and publicity techniques are used by the employer to persuade present and potential employees.	SA	A	U	D	SD
131.	In the personnel program, there is a trade-off of costs between the various functions performed in an effort to develop the most effective total program.	SA	A	U	D	SD
132.	Personnel programs which recognize the job needs of employees will be effective in obtaining and retaining the caliber of employees which the institution requires.	SA	А	U	D	SD
133.	The employee turnover rate may serve as one measure of the quality of the per-sonnel program.	SA	A	U	D	SD
134.	Effective communications between the employer and the employee leads to the employee's correction of an improper attitude and/or the employer's correc- tion of an inappropriate standard or demand.	SA	A	U	D	SD
135.	The interview may serve as a means for the interviewer to determine the job and benefit needs of the prospective candidate.	SA	А	U	D	SD
136.	The recognized union acts as an inter- mediary between the employer and the employee in the solving of grievances and the determination of wages, hours and working conditions.	SA	A	U	D	SD
137.	In the recruitment and selection process. an attempt is made to identify and separate the qualified and unqualified prospective candidates.	SA	A	U	D	SD
138.	The personnel program must be designed within the job needs of the employees.	SA	A	U	D	SD

139.	The wage schedule is generally estab- lished relative to the number of units of the employee's services which the employer expects to purchase (i.e. hours).	SA	A	U	D	SD
140.	Keeping employees informed regarding their benefits, working conditions, etc. can contribute to the job satisfaction of the employee and to a resultant decrease in employee turnover.	SA	A	U	D	SD
141.	Use of the structured interview to inform the prospective candidate of the organi- zation's benefit offerings substantially reduces the interview time required for each prospective candidate.	SA	A	U	D	SD
142.	News releases, direct mailings, and other types of communications are used by the employer to persuade employees of the benefits of one employer over those of other employers.	SA	A	U	D	SD
143.	The identification of employees who have performed long-time service as contri- butors to the continuing success of the organization provides the motivation for the continuation of the long-term relationship.	SA	A	U	D	SD
144.	The total employee comes to work.	SA	Α	U	D	SD
145.	Prospective candidates for job openings must be qualified for the job.	SA	A	U	D	SD
146.	Because of its perceived ability to con- trol the flow of wages and benefits from the employer to its employee membership, the union is requested to place repre- sentatives on certain committees whose function it is to develop personnel program changes which affect union members.	SA	A	U	D	SD
147.	It is recognized that there must be a balance between what is required of the employee and what the employee expects in return.	SA	A	U	D	SD

148.	The best source of potential candidates to fill job openings are those individuals who possess the necessary skills and who presently live within the job market area or are willing to relocate to the job location.	SA	A	U	D	SD
149.	Every effort is made to assure that the demands made on the employee are balanced by the value of what the employee receives.	SA	A	U	D	SD
150.	The development of a totally effective and balanced personnel program should take precedence over the development of a single function.	SA	A	U	D	SD
151.	When an employee is hired, we hire not only the employee's skills and time to do the job but also their physical, mental and psychological characteristics.	SA	A	U	D	SD
152.	The personnel program makes provision for the flow of communications from the employer to the employee and for the receipt of feedback from the employee.	SA	A	U	D	SD
153.	In the recruitment process for potential candidates, we generally stress the wage level of the job opening over the fringe benefits which are available to employees.	SA	A	U	D	SD
154.	The compensation received by the employee may be varied from the established basic wage rate or wage range (i.e. pay per hour worked) through the overtime, longevity, vacation, etc. provisions of the personnel program.	SA	A	U	D	SD
155.	The screening out of unqualified appli- cants early in the recruitment and selection process can increase the amount of time available for inter- viewing qualified prospective candidates and/or reduce the amount of time neces- sary for the selection process at the operating department level.	SA	A	U	D	SD

156.	The personnel office makes use of several kinds of media for the advertising of job openings in an effort to obtain a number of potential candidates.	SA	A	U	D	SD
157.	Some employers establish higher than market wage rates in an effort to obtain only the most highly skilled employees.	SA	A	U	D	SD
158.	Employees may receive bonuses based upon length of service, such as longevity pay, or based upon performance, such as exceeding the established minimum pro- duction standards (i.e. piece rates).	SA	A	U	D	SD
159.	Excessive employee turnover is a large cost factor to the employer not only due to the loss of needed skills but also due to the cost of recruitment, hiring, training, etc. of replacement employees.	SA	A	U	D	SD
160.	A personnel program which provides wages, benefits, and working conditions which satisfies the employee's job needs is one of the objectives of the personnel program.	SA	Α	U	D	SD

***Please make certain that you have responded to EACH STATEMENT.***

APPENDIX C

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## APPENDIX C-1

## TABLE 3-5: QUESTIONNAIRE STATEMENT CROSS-REFERENCE NUMBERING CHART

Questionnaire Statement Number	Statement Number	Questionnaire Statement Number	Statement Number
1	110	36	117
2	134	37	82
3	108	38	142
4	125	39	29
5	126	40	112
6	111	41	57
7	136	42	81
8	62	43	13
9	152	44	46
10	21	45	109
11	129	46	56
12	91	47	107
13	54	48	7
14	97	49	63
15	151	50	105
16	124	51	99
17	143	52	79
18	102	53	127
19	90	54	158
20	2	55	35
21	95	56	41
22	33	57	76
23	160	58	98
24	8	59	92
25	36	60	45
26	39	61	147
27	88	62	49
28	22	63	25
29	123	64	40
30	101	65	132
31	100	66	60
32	61	67	128
33	11	68	133
34	71	69	67
35	150	70	72

TABLE 3-5.--Questionnaire Statement Cross-Reference Numbering Chart.

1	8	7
•	-	

Questionnaire Statement Number	Statement Number	Questionnaire Statement Number	Statement Number
71	113	106	51
72	116	107	6
73	32	108	20
74	135	109	14
75	3	110	70
76	50	111	104
77	114	112	115
78	48	113	138
79	93	114	78
80	37	115	144
81	75	116	87
82	118	117	17
83	69	118	27
84	122	119	131
85	43	120	155
86	24	121	89
87	146	122	156
88	30	123	154
89	159	124	139
90	12	125	18
91	38	126	47
92	19	127	9
93	34	128	23
94	153	129	103
95	96	130	65
96	55	131	84
97	26	132	16
98	59	133	145
99	44	134	68
100	140	135	53
101	28	136	94
102	4	137	77
103	149	138	15
104	120	139	141
105	74	140	64

TABLE 3-5.--Continued.

Questionnaire Statement Number 141 142 143 144 145 146 147	Statement Number	Questionnaire Statement Number	Statement Number
141	52	151	5
142	66	152	42
143	31	153	121
144	1	154	130
145	73	155	80
146	106	156	58
147	85	157	157
148	119	158	137
149	86	159	148
150	83	160	10

TABLE 3-5.--Continued.

#### APPENDIX C-2

#### TABLE 3-6: RESPONSE DISTRIBUTION

#### FOR EACH RESPONDENT

Statement					Res	ponde	ent Nu	mber				
Number	1	2	3	4	5	6	7	8	9	10	11	12
1 2 3 4 5	2 2 2 1	2 2 2 2 2	2 1 2 2 2	1 2 2 2 2	2 2 2 2 2 2	3 2 2 2 2	4 2 1 2	2 4 2 2	1 5 1 5 1	2 3 2 3 3	3 2 4 2	1 2 2 1
6 7 8 9 10	2 2 1 2 1	2 2 2 2 2	4 2 1 2 2	4 2 2 2 2	2 2 1 2 1	4 2 2 2 2	2 4 1 2 2	3 4 2 2 2	4 1 2 1	3 3 2 2 2	5 4 4 2	2 1 1 2 1
11 12 13 14 15	2 2 1 1 2	2 2 2 2 2	2 2 5 2 4	2 2 2 2 2	1 1 2 1 1	2 2 2 2 2	2 1 1 2	2 2 3 5	1 1 1 2 1	2 2 4 4	2 2 3 4 2	2 2 1 4
16 17 18 19 20	2 2 1 1 2	2 2 2 2 2 2	2 2 4 2 2	2 2 4 2 2	1 2 2 1	2 2 2 2 2	2 1 2 2 2	2 2 2 2 2	1 2 4 1 1	3 2 2 3 2	2 4 4 4	2 1 1 1 1
21 22 23 24 25	3 3 2 2 2	3 2 2 2 2 2	1 2 2 2 2	1 4 2 2 2	2 1 2 1 1	3 5 2 4	1 2 2 2 2	1 2 2 2 2	1 5 2 1 1	3 4 3 2 2	3 5 2 4 2	5 4 2 5 1
26 27 28 29 30	2 2 1 2	2 2 2 2 2	2 2 2 2 2	2 2 2 4 4	1 1 2 1 1	2 4 1 2	2 4 1 1 2	2 2 2 3	1 1 2 1	2 2 3 2 2	2 3 2 5 4	1 2 1 2 4
31 32 33 34 35	2 2 2 2 3	2 2 2 2 2 2	4 2 2 3	4 4 1 2 2	1 1 2 2 1	2 4 4 4	2 2 4 4 2	3 4 2 2 2	3 4 4 2 2	2 2 2 2 3	4 5 2 2 2	2 2 1 2 2

TABLE 3-6.--Response Distribution for Each Respondent.

	-0011	Inded	•												
Statement	Respondent Number														
Number	1	2	3	4	5	6	7	8	9	10	11				
36 37 38 39 40	2 1 1 2 1	2 2 2 2 2	2 2 1 2	2 4 2 1 2	2 1 1 1 1	2 2 1 1 2	4 2 1 1 1	2 2 2 2 2	4 1 1 1 1	3 2 2 2 3	2 5 2 4 3				
41 42 43 44 45	2 1 2 1 2	2 2 2 4	4 2 2 4	4 2 2 4	2 2 2 2 2	4 2 2 4	4 2 1 4	3 2 2 2 3	5 4 1 1 4	3 2 3 3 4	4 4 2 5				
46 47 48 49 50	2 2 2 4	1 2 2 4	2 4 2 4	2 4 2 4	1 2 2 2	2 2 4 2 4	2 4 1 2	1 2 2 2 2	1 4 4 1 1	2 3 2 2 4	2 5 5 1 4				
51 52 53 54 55	2 2 2 2 2	2 2 4 2	4 4 4 4	4 4 2 4 4	1 2 2 2 2	4 2 4 4	2 2 2 2 2	5 3 2 2	1 1 1 5 1	4 3 2 4 3	2 2 4 4				
56 57 58 59 60	2 2 1 2 3	2 2 2 2 2	4 2 2 3	4 2 2 4	2 2 1 1 2	4 2 2 2	2 2 2 4	3 1 2 2 2	1 1 1 1 4	3 2 2 2 3	2 2 2 2 4				

2 1

1

2 1

TABLE 3-6.--Continued

67

70

1	92
	26

Statement	ent Respondent Number											
Number	1	2	3	4	5	6	7	8	9	10	11	12
71 72 73 74 75	2 2 2 3	2 2 2 2 2	3 4 2 2 2	2 2 2 2 2	2 1 1 1 2	3 3 2 2 2	2 1 3 2 2	2 2 2 2 2	1 1 1 1 1	2 2 3 3	2 2 3 2 2	2 2 1 1 2
76 77 78 79 80	2 2 2 1	2 2 2 2 2	2 2 1 2	2 2 2 2 2	2 1 1 1	2 2 2 2 2	1 2 1 1 2	2 2 2 2 2	2 1 1 1 1	3 2 2 2 2	2 2 1 1 2	1 1 2 1 1
81 82 83 84 85	1 3 2 3 2	1 2 2 2 2	2 4 4 2	1 2 2 2 2	1 2 1 1 2	2 2 2 2 2	2 4 2 2 2	2 2 3 2 2	1 2 2 2 2	3 3 3 2	2 4 5 2	1 2 2 2 2
86 87 88 89 90	2 2 1 2	2 2 2 1	4 2 2 2 2	2 2 2 1	1 1 2 2 1	2 2 2 2 2	2 2 2 4 2	2 2 2 1	2 1 1 1 1	3 3 2 3 2	4 2 4 2 2	2 2 1 2 1
91 92 93 94 95	1 3 2 2 3	2 2 2 4	2 2 5 2 2	1 2 2 4	1 1 2 2 2	2 2 2 4	2 1 2 1 2	1 2 2 1	1 1 2 1 1	3 2 2 2 4	2 2 1 4	1 1 1 2 1
96 97 98 99 100	2 3 2 2	4 4 2 2	2 2 2 2 2	2 1 2 2 2	2 2 2 2 2	2 3 4 2	2 2 4 2	5 2 2 2 1	2 5 4 2 1	3 3 3 3 3	2 2 2 5	1 4 2 2
101 102 103 104 105	2 2 2 3 4	2 2 2 4 2	2 2 2 4	2 4 2 4	1 1 2 2 2	4 1 4 2 4	4 2 2 4	1 1 2 2 2	1 1 1 2	3 1 2 4 4	1 2 2 1 2	1 1 1 2 2

TABLE 3-6.--Continued.

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Statement					Res	ponde	ent Nu	mber	<u>er# -94</u>	10 4 5 2 3 3 2 3 4 2 3 2 3 2 1 1 1 2 2 2 2 2 2 2 2 2 2 2 2	****	
Number	1	2	3	4	5	6	7	8	9	10	11	12
106 107 108 109 110	2 3 2 2 2	2 4 1 3 2	4 2 2 2	<b>4</b> 5 1 2 2	4 2 2 1	4 5 2 3 2	2 4 2 4 2	2 3 2 1	4 5 1 2 3	4 5 2 3 3	2 2 1 5 2	1 2 1 2 2
111 112 113 114 115	2 2 2 2 2	2 4 2 2 2	2 3 4 2 4	1 2 2 2 2	2 2 2 2 2	4 4 2 4 2	1 2 2 2 2	3 1 2 2 2	1 1 5 1 4	2 3 4 2 3	2 1 4 2 4	1 1 2 1 2
116 117 118 119 120	2 4 2 2 2	2 2 2 2 2	4 2 4 2	2 2 2 2 2	2 2 1 1	2 3 4 2 2	2 2 2 2 2	3 2 2 2 4	4 2 1 1 1	4 3 2 2	2 4 2 1	2 2 2 1
121 122 123 124 125	2 2 2 1	4 2 2 1	4 2 2 1	4 2 1 1	4 2 2 4	2 2 2 1	2 2 1 2 2	2 1 1 1	2 1 1 5 1	3 2 1 1 1	2 2 2 2 2	1 2 2 1 1
126 127 128 129 130	1 1 2 2 1	1 2 2 2 2	1 2 4 2	1 2 2 2 2	2 2 2 1	1 2 4 2 2	2 2 4 2 2	1 2 3 2	1 1 2 1 1	1 2 2 2 2	2 4 2 1	1 2 1 2 1
131 132 133 134 135	2 4 1 2 1	2 4 2 2	2 2 2 2 2	2 1 2 2 2	2 2 1 1	4 2 2 4 4	2 1 2 1 2	2 1 2 5 2	2 1 1 5 2	2 2 1 2	1 2 4 5 4	2 2 1 2
136 137 138 139 140	1 2 2 2 2	2 2 2 2 2	2 2 2 2 4	2 4 2 4	2 2 2 2 2	2 4 5 2 4	2 2 1 2 1	2 2 3 2 2	1 2 2 1 1	2 2 4 2 3	2 2 1 1 4	1 1 2 2 2

TABLE 3-6.--Continued.

		_			-						
				Res	sponde	ent Nu	ımber				
1	2	3	4	5	6	7	8	9	10	11	12
2 2 4 2 2	4 2 2 2 2	4 2 4 3 2	2 1 4 2	1 1 2 2 2	2 2 3 4 2	2 2 2 2 2	3 2 3 2 2	2 2 5 1	3 2 3 3 3	4 1 4 2	1 2 4 2 2
2 2 1 2 2	2 2 2 2 2	1 2 2 2 2	2 4 2 1	2 2 1 1 2	1 4 2 4 2	1 2 1 2 2	2 2 2 2 2	1 1 1 1 1	3 3 2 2 2	2 2 1 1 2	1 2 1 2 2
2 1 2 2 2	2 2 4 2	2 2 2 4 2	1 1 2 4 4	2 2 2 3	1 2 4 2 4	2 1 2 2 4	1 1 2 2 2	1 1 2 1 4	1 1 2 2 4	2 2 4 2	1 1 2 2 4
2 2 5 1	4 2 2 2 2	2 4 3 2 2	2 2 2 2 2 2	2 3 2 2	2 4 2 2	2 2 2 1	2 2 2 1	2 1 1 1 1	2 2 4 2	1 2 4 2	1 1 1 2 1
	1 2 2 4 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Res           1         2         3         4         5           2         4         4         2         1           2         2         2         1         1           4         2         4         4         2         1           4         2         4         4         2         2         1           4         2         4         4         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         1         2         2         1         2         2         1         2         2         1         2         2         2         1         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2	Responde           1         2         3         4         5         6           2         4         4         2         1         2           2         2         2         1         1         2           2         2         2         1         1         2           2         2         2         1         1         2           4         2         4         4         2         3           2         2         3         4         2         4           2         2         2         2         2         2           2         2         1         2         2         1           2         2         2         1         2         1           2         2         2         1         2         1           2         2         2         1         2         1           2         2         2         1         2         1           2         2         2         1         2         2           2         2         2         2         2         4	Respondent         Nu           1         2         3         4         5         6         7           2         4         4         2         1         2         2           2         2         2         1         1         2         2           2         2         2         1         1         2         2           2         2         2         1         1         2         2           4         2         4         2         3         2         2           2         2         3         4         2         4         2           2         2         2         2         2         2         2           2         2         1         2         2         2         2           2         2         2         1         2         1         2           2         2         2         1         2         1         2           2         2         2         1         2         1         2           2         2         2         2         2         1         2	Respondent Number           1         2         3         4         5         6         7         8           2         4         4         2         1         2         2         3           2         2         2         1         1         2         2         3           2         2         2         1         1         2         2         3           2         2         2         1         1         2         2         3           2         2         2         1         2         2         3         3         2         3         3         2         3         3         2         3         3         2         3         3         2         3         3         2         3         3         2         3         3         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2 <t></t>	Respondent Number           1         2         3         4         5         6         7         8         9           2         4         4         2         1         2         2         3         2           2         2         2         1         1         2         2         3         2           2         2         2         1         1         2         2         3         2           4         2         4         4         2         3         2         3         2           2         2         3         4         2         4         2         2         5           2         2         1         2         2         2         1         1         1           2         2         1         2         2         1         2         1         1           2         2         2         1         2         2         1         2         1           2         2         2         1         2         1         2         1         1           2         2         2	Respondent Number           1         2         3         4         5         6         7         8         9         10           2         4         4         2         1         2         2         3         2         3         2         3         2         3         2         3         2         3         2         3         2         3         2         3         2         3         2         3         2         3         2         3         2         3         2         3         2         3         2         3         2         3         2         3         2         3         2         3         2         3         2         3         2         3         2         3         2         3         2         3         2         3         2         3         2         3         2         3         2         3         2         3         2         3         3         3         3         2         2         1         3         3         3         3         2         2         1         3         3         3         3         3 <td< td=""><td>Respondent Number           1         2         3         4         5         6         7         8         9         10         11           2         4         4         2         1         2         2         3         2         3         4           2         2         2         1         1         2         2         2         2         3         4           2         2         2         1         1         2         2         3         4           2         2         2         1         1         2         2         3         4           2         2         3         4         2         4         2         2         3         4           2         2         2         2         2         1         3         2           2         2         1         2         1         3         2         1         3         2           2         2         2         1         1         1         2         1         3         2           2         2         2         1         2         <t< td=""></t<></td></td<>	Respondent Number           1         2         3         4         5         6         7         8         9         10         11           2         4         4         2         1         2         2         3         2         3         4           2         2         2         1         1         2         2         2         2         3         4           2         2         2         1         1         2         2         3         4           2         2         2         1         1         2         2         3         4           2         2         3         4         2         4         2         2         3         4           2         2         2         2         2         1         3         2           2         2         1         2         1         3         2         1         3         2           2         2         2         1         1         1         2         1         3         2           2         2         2         1         2 <t< td=""></t<>

TABLE 3-6.--Continued.

## APPENDIX C-3

# TABLE 3-8: STATEMENT INDIVIDUAL, TOTAL WEIGHTED, AND TOTAL MEAN SCORE

Statement			R	lesp	ond	lent	: Nu	ımbe	r	<del>1.2.</del> 8			Total	Total
Number	1	2	3	4	5	6	7	8	9	10	11	12	Score	Score
1 2 3 4 5	4 4 4 5	4 4 4 4	4 5 4 4	5 4 4 4	4 4 4 4	3 4 4 4	2 4 5 4	4 2 4 4	5 1 5 5 5	4 3 4 3 3	3 4 2 2 4	5 4 4 5	47 43 47 47 50	3.92 3.58 3.92 3.92 4.17
6 7 8 9 10	4 4 5 4 5	4 4 4 4	2 4 5 4 4	2 4 4 4	4 4 5 4 5	2 4 4 4	4 2 5 4 4	3 2 4 4	2 5 5 4 5	3 3 4 4 4	1 2 2 4	4 5 5 4 5	35 43 52 46 52	2.92 3.58 4.33 3.83 4.33
11 12 13 14 15	4 5 5 4	4 4 4 4	4 1 4 2	4 4 4 4	5 5 4 5 5	4 4 4 4	4 5 5 5 4	4 4 3 1	5 5 5 4 5	4 4 2 2	4 4 3 2 4	4 4 5 2	50 51 47 47 41	4.17 4.25 3.92 3.92 3.42
16 17 18 19 20	4 4 5 5 4	4 4 4 4 4	4 4 2 4 4	4 4 2 4 4	5 4 4 5	4 4 4 4	4 5 4 4	4 4 4 4	5 4 2 5 5	3 4 4 3 4	4 2 2 2 2	4 5 5 5 5	49 48 42 48 49	4.08 4.00 3.50 4.00 4.08
21 22 23 24 25	3 3 4 4 4	3 4 4 4	5 4 4 4	5 2 4 4 4	4 5 4 5 5	3 1 4 2	5 4 4 4	5 4 4 4	5 1 4 5 5	3 2 3 4 4	3 1 4 2 4	1 2 4 1 5	45 33 47 45 49	3.75 2.75 3.92 3.75 4.08
26 27 28 29 30	4 4 5 4	4 4 4 4 4	4 4 4 4	4 4 2 2	5 5 4 5 5	4 2 4 5 4	4 2 5 5 4	4 4 4 3	5 5 5 4 5	4 4 3 4	4 3 4 1 2	5 4 5 4 2	51 45 50 47 43	4.25 3.75 4.17 3.92 3.58
31 32 33 34 35	4 4 4 3	4 4 4 4	2 4 4 3	2 2 5 4 4	5 5 4 4 5	4 2 2 2 2	4 4 2 2 4	3 2 4 4 4	3 2 2 4 4	4 4 4 3	2 1 4 4 4	4 4 5 4	41 38 44 44 44	3.42 3.17 3.67 3.67 3.67 3.67

TABLE 3-8.--Statement Individual, Total Weighted, and Total Mean Score.

1.00
	_													
Statement Number		2	R 3	esp 4	ond 5	ent 6	Nu 7	mbe 8	r 9	10	11	12	Total Weighted Score	Total Mean Score
36 37 38 39	4 5 5 4	4 4 4 4	4 4 4 5	4 2 4 5	4 5 5 5	4 4 5 5	2 4 5 5	4 4 4 4	2 5 5 5	3 4 4 4	4 1 4 2	4 4 5 4	43 46 54 52	3.58 3.83 4.50 4.33
40 41 42 43 44	5 4 5 4 5	4 4 4 4 4 2	4 2 2 4 4 2	4 2 4 4 4 2	5 4 4 4 4 4	4 2 4 4 4 2	5 24452	4 34442	5 12552	3 3 4 3 3	3 2 2 2 4	5 1 4 4 4 2	51 30 43 46 50 29	4.25 2.50 3.58 3.83 4.17
45 46 47 48 49 50	4 4 4 4 2	2 5 4 4 2	2 4 2 2 4 2	2 4 2 2 4 2	4 5 4 4 4	2 4 4 2 4 2 4 2	2 4 2 2 5 4	5 5 4 4 4	2 52255	2 4 3 4 4 2	4 1 1 5 2	3 4 4 2 5 3	52 36 33 52 34	4.33 3.00 2.75 4.33 2.83
51 52 53 54 55	4 4 4 4	4 4 4 2 4	2 2 2 2 2 2 2	2 2 4 2 2	5 4 4 4	2 4 2 2 2	4 4 4 4 4	1 3 3 4 4	5 5 5 1 5	2 3 4 2 3	4 4 4 2 2	2 1 4 2 4	37 40 44 31 40	3.08 3.33 3.67 2.58 3.33
56 57 58 59 60	4 4 5 4 3	4 4 4 4	2 4 4 3	2 4 4 2	4 4 5 5 4	2 4 4 4	4 4 4 2	3 5 4 4	5 5 5 5 2	3 4 4 3	4 4 4 2	4 5 5 2	41 50 52 51 35	3.42 4.17 4.33 4.25 2.92
61 62 63 64 65	4 4 5 4	2 4 4 4	2 2 4 2	4 4 4 4	4 4 5 5 4	2 4 4 4	4 4 5 4 4	2 4 4 4	2 1 4 5 2	4 4 3 4 3	1 1 4 4 1	4 4 5 2	35 40 49 52 38	2.92 3.33 4.08 4.33 3.17
66 67 68 69 70	4 5 4 5	4 4 4 4	2 4 4 4	1 4 2 4 4	4 4 4 5	2 4 4 4	4 5 4 5 5	4 4 5 4	2 5 3 5 5	3 4 3 4 4	1 4 4 5	1 5 4 5 5	32 52 44 51 54	2.67 4.33 3.67 4.25 4.50

TABLE 3-8.--Continued.

Statement			R	esp	ond	lent	Nu	mbe	r				Total Weighted	Total Mean
Number	1	2	3	4	5	6	7	8	9	10	11	12	Score	Score
71 72 73 74 75	4 4 4 3	4 4 4 4	3 2 4 4 4	4 4 4 4	4 5 5 5 4	3 3 4 4 4	4 5 3 4 4	4 4 4 4	5 5 5 5 5 5 5	4 4 3 3	4 4 3 4 4	4 4 5 5 4	47 48 49 50 47	3.92 4.00 4.08 4.17 3.92
76 77 78 79 80	4 4 4 5	4 4 4 4	4 4 5 4	4 4 4 4	<b>4</b> 5 5 5 5	4 4 4 4	5 4 5 5 4	4 4 4 4	<b>4</b> 5 5 5 5 5	3 4 4 4 4	4 4 5 5 4	5 5 4 5 5	49 51 52 54 52	4.08 4.25 4.33 4.50 4.33
81 82 83 84 85	5 3 4 3 4	5 4 4 4	4 2 2 2 4	5 4 4 4	5 4 5 5 4	4 4 4 4	4 2 4 4	4 4 3 4 4	5 4 4 4	3 3 3 3 4	4 2 1 4	5 4 4 4	53 40 43 42 48	4.42 3.33 3.58 3.50 4.00
86 87 88 89 90	4 4 5 4	4 4 4 5	2 4 4 4	4 4 4 5	5 5 4 4 5	4 4 4 4	4 4 2 4	4 4 4 5	4 5 5 5 5	3 3 4 3 4	2 4 2 4 4	4 5 4 5	44 49 48 47 54	3.67 4.08 4.00 3.92 4.50
91 92 93 94 95	5 3 4 3	4 4 4 2	4 2 4 4	5 4 4 2	5 5 4 4	4 4 4 2	4 5 4 5 4	5 4 4 5	5 5 4 5 5	3 4 4 2	4 4 5 2	5 5 4 5	53 51 47 51 40	4.42 4.25 3.92 4.25 3.33
96 97 98 99 100	4 3 3 4 4	2 2 2 4 4	4 4 4 4	4 5 4 4	4 4 4 4	4 3 2 2 4	4 4 2 4	1 4 4 5	4 1 2 4 5	3 3 3 3 3	4 4 4 1	5 2 2 4 4	43 39 38 43 46	3.58 3.25 3.17 3.58 3.83
101 102 103 104 105	4 4 3 2	4 4 2 4	4 4 4 2	4 2 4 2	5 5 4 4	2 5 2 4 2	2 4 4 2	5 5 4 4 4	5 5 5 5 4	3 5 4 2 2	5 4 4 5 4	5 5 4 4	48 52 48 45 36	4.00 4.33 4.00 3.75 3.00

TABLE 3-8.--Continued.

Statement			R	esp	ond	ent	Nu	mbe	r				Total Weighted	Total
Number	1	2	3	4	5	6	7	8	9	10	11	12	Score	Score
106 107 108 109 110	4 3 4 4 4	4 2 5 3 4	2 2 4 4	2 1 5 4 4	2 2 4 5	2 1 4 3 4	4 2 4 2 4	4 3 4 3	2 1 5 4 3	2 1 4 3 3	4 4 5 1 4	5 4 5 4	37 26 53 40 46	3.08 2.17 4.42 3.33 3.83
111 112 113 114 115	4 4 4 4	4 2 4 4	4 3 2 4 2	5 4 4 4	4 4 4 4	2 2 4 2 4	5 4 4 4	3 5 4 4 4	5 5 1 5 2	4 3 2 4 3	4 5 2 4 2	5 5 4 5 4	49 46 39 48 41	4.08 3.83 3.25 4.00 3.42
116 117 118 119 120	4 2 4 4	4 4 4 4	2 4 2 4	4 4 4 4	4 4 5 5	4 3 2 4 4	4 4 4 4	3 4 4 2	2 4 5 5 5	2 3 3 4 4	4 2 4 5	4 4 4 5	41 42 46 48 50	3.42 3.50 3.83 4.00 4.17
121 122 123 124 125	4 4 4 5	2 4 4 5	2 4 4 5	2 4 5 5	2 4 4 2	4 4 4 5	4 4 5 4 4	4 5 5 5 5	4 5 1 5	3 4 5 5 5	4 4 4 4	5 4 5 5	40 50 52 49 55	3.33 4.17 4.33 4.08 4.58
126 127 128 129 130	5 5 4 5	5 4 4 4	5 4 2 4	5 4 4 4	4 4 4 5	5 4 2 4 4	4 2 4 4	5 4 3 4	5 5 4 5 5	5 4 4 4	4 2 2 4 5	5 4 5 4 5	57 48 43 46 53	4.75 4.00 3.58 3.83 4.42
131 132 133 134 135	4 2 5 4 5	4 2 4 4 4	4 4 4 4	4 5 4 4	4 4 5 5	2 4 2 2	4 5 4 5 4	4 5 4 1 4	4 5 5 1 4	4 4 5 4	5 4 2 1 2	4 4 5 4	47 48 48 41 46	3.92 4.00 4.00 3.42 3.83
136 137 138 139 140	5 4 4 4	4 4 4 4	4 4 4 2	4 2 2 4 2	4 4 4 4	4 2 1 4 2	4 4 5 4 5	4 4 3 4 4	5 4 5 5	4 2 4 3	4 4 5 2	5 5 4 4	51 45 42 50 41	4.25 3.75 3.50 4.17 3.42

# TABLE 3-8.--Continued.

Statement			R	lesp	ond	lent	: Nu	Number Total Total						
Number	1	2	3	4	5	6	7	8	9	10	11	12	Score	Score
141 142 143 144 145	4 4 2 4 4	2 4 4 4	2 4 2 3 4	4 5 2 2 4	5 5 4 4	4 4 3 2 4	4 4 4 4 4	3 4 3 4 4	4 4 1 5	3 4 3 3 3	2 5 2 4	5 4 2 4 4	42 51 35 37 48	3.50 4.25 2.92 3.08 4.00
146 147 148 149 150	4 4 5 4 4	4 4 4 4	5 4 4 4	4 2 4 5	4 4 5 5 4	5 2 4 2 4	5 4 5 4 4	4 4 4 4	5 5 5 5 5 5	3 3 4 4 4	4 4 5 5 4	5 4 5 4 4	52 44 54 49 50	4.33 3.67 4.50 4.08 4.17
151 152 153 154 155	4 5 4 4	4 4 2 4	4 4 2 4	5 5 4 2 2	4 4 4 3	5 4 2 4 2	4 5 4 2	5 5 4 4	5 5 4 5 2	5 5 4 2	4 4 2 4	5 5 4 2	54 55 46 41 35	4.50 4.58 3.83 3.42 2.92
156 157 158 159 160	4 4 1 5	2 4 4 4	4 2 3 4 4	4 4 4 4	4 3 3 4 4	4 2 2 4 4	4 4 4 5	4 4 4 5	4 5 5 5 5	4 4 2 4	5 4 2 4	5 5 5 4 5	48 45 46 42 53	4.00 3.75 3.83 3.50 4.42

TABLE 3-8.--Continued.

APPENDIX C-4

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TABLE 3-11: DECISION MATRIX--INDIVIDUAL

Respondent Number:	Application	Utilization	Insight	Effectiveness
<u>No. 1</u>				
Product Promotion Place Price	4.3 4.0 3.7 4.2	4.3 4.1 3.8 4.2	4.0 4.0 3.9 3.7	4.2 4.2 3.7 4.2
<u>No. 2</u>				
Product Promotion Place Price	3.9 3.6 3.8 3.7	4.0 3.7 3.9 3.9	4.0 4.0 3.6 4.0	4.0 4.0 3.5 3.6
<u>No. 3</u>				
Product Promotion Place Price	3.8 3.0 3.4 3.3	3.7 3.0 3.4 3.9	3.6 3.4 3.2 3.8	4.1 3.1 3.5 3.7
<u>No. 4</u>				
Product Promotion Place Price	3.9 3.6 4.0 3.7	3.2 3.3 3.7 3.9	3.9 3.4 3.7 3.5	3.8 3.0 4.1 3.9
<u>No. 5</u>				
Product Promotion Place Price	4.3 4.2 4.2 3.7	4.6 4.5 4.2 4.2	4.6 4.4 4.2 4.0	4.7 4.3 4.3 4.1
<u>No. 6</u>				
Product Promotion Place Price	3.5 3.2 3.3 3.3	3.4 3.4 3.3 3.5	3.7 3.5 2.9 3.2	3.8 3.5 3.8 3.4

TABLE 3-11.--Decision Matrix--Individual.

Respondent Number:	Application	Utilization	Insight	Effectiveness
<u>No. 7</u>				
Product Promotion Place Price	4.0 3.6 3.2 4.0	4.0 4.2 3.9 4.3	3.7 4.1 3.7 3.9	4.3 3.9 4.1 4.3
<u>No. 8</u>				
Product Promotion Place Price	4.1 3.7 4.1 3.9	3.5 4.1 4.1 3.8	3.4 3.7 3.9 4.1	3.8 3.8 3.6 4.4
<u>No. 9</u>				
Product Promotion Place Price	4.4 3.7 3.7 4.6	3.4 3.6 4.0 4.4	4.6 4.6 4.1 4.4	4.4 4.1 4.5 4.0
<u>No. 10</u>				
Product Promotion Place Price	3.8 3.6 3.0 3.8	3.4 3.4 3.4 3.9	3.4 3.3 3.0 3.6	3.5 3.4 3.2 4.0
<u>No. 11</u>				
Product Promotion Place Price	2.7 2.9 3.4 3.7	2.8 3.0 3.7 3.8	2.9 3.4 3.4 3.4	2.8 3.5 3.6 3.6
<u>No. 12</u>				
Product Promotion Place Price	4.2 3.8 4.1 4.5	4.1 3.7 4.2 4.5	4.0 4.1 4.4 3.7	4.1 3.6 4.6 4.7

TABLE 3-11.--Continued.

APPENDIX C-5

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TABLE 3-14: MARKETING CONCEPTS--

QUADS--INDIVIDUAL

	dotting Concorts					Re	sponde	nt Num	ber					Total
		-	2	3	4	5	9	7	8	6	10	11	12	Score
Proc	duct Concepts:													
	Total Product Tangible and intangible aspects	<b>4.</b> 00 <b>4.</b> 50	<b>4</b> .00 <b>4</b> .00	<b>4</b> .25 3.75	<b>4.25</b> 3.50	4.00	3.75 3.50	3.75 3.75	3.50 3.25	<b>4.</b> 00 <b>4.</b> 25	3.50 3.25	2.75 2.25	4.25	3.83 3.75
5.4 °.	or the product Exchange (transaction-barter) Product design Product life cycle	4.25 4.50 4.50	4 4 4 0004 0000	<b>4</b> .00 2.75 3.50	<b>4.0</b> 3.50	4.75 4.75 4.25	4 4 4 8 8 8	4.25 4.50 4.25	4.00 4.00	4.75 4.75 4.00	<b>4</b> .00 2.75 3.75	3.50 3.25 2.00	4.25 3.75 5.00	4.15 3.83 3.90
	Portfolio concept Brandingassurance of quality Brandingidentification Packagingappearance Packagingprotection	3.50 4.00 3.75 3.75	3.75 4.00 4.00 4.00	4.25 4.00 3.50 4.25	3.75 4.00 2.00 3.75 3.75	4.50 5.00 5.00 5.00	3.00 3.75 2.50 4.50	4.25 3.75 4.25 2.50 4.75	4.25 4.00 4.00 4.00	3.75 3.50 3.00 5.00	3.75 3.75 3.50 3.75 3.75	2.50 3.75 1.50 2.50	2.00 4.75 3.50 4.25 4.50	3.54 4.06 3.52 4.23 4.23
Pron	notion Concepts:									•				
3.	Communicationstwo-way model Management information system Kinds of sales presentations	4.50 4.00 3.50	<b>4.00</b> 3.75 3.50	3.00 2.50 2.50	3.50 2.50 2.50	4.00 4.25 4.25	3.50 3.00 3.00	3.75 2.50 4.25	3.75 4.00 3.00	3.25 2.75 5.00	3.25 3.25 2.75	2.50 1.75 3.75	3.25 3.25 2.75	3.52 3.13 3.40
4.	selling-formula theory Kinds of sales presentations	4.00	3.50	2.00	2.50	4.00	2.00	4.00	3.50	4.00	3.00	3.00	3.50	3.25
5. 9. 9.	need - satisfaction theory Mass advertising Advertisingto inform Advertisingto persuade Media selection Personal selling	4.00 4.25 4.25 3.75 3.75	4.00 4.00 4.00 4.00	3.75 3.00 3.25 3.25 4.00	3.50 4.00 4.00 4.00	<b>4</b> .50 <b>4</b> .50 <b>4</b> .50 <b>4</b> .50	4.00 3.50 3.50 4.00	3.50 4.25 4.50 4.00	<b>4</b> .25 3.50 <b>4</b> .00 <b>4</b> .25	4.25 3.00 3.00 5.00 4.75	3.75 3.75 3.25 <b>4</b> .00 3.25	3.50 2.50 4.25 3.75	4.00 4.25 3.00 4.75	3.92 3.67 3.46 4.17 4.06
10.	qualitying the prospect Market segmentation	4.25	4.00	4.25	4.00	5.00	4.00	4.50	4.00	5.00	4.00	4.50	4.75	4.35

TABLE 3-14.--Marketing Concepts--Quads--Individual.

Mautoting Concerts					Re	sponde	nt Num	ber					Total	8
	ſ	2	Э	4	5	9	7	ø	6	0	=	12	Score	
Place Concepts:								- - -						1
<ol> <li>Total systems concept</li> <li>Pavoff-tolerance function</li> </ol>	3.75 4.00	<b>4</b> .25 <b>4</b> .00	2.50 3.50	4.25 4.00	4.75	4.00	3.50 4.00	3.75 4.00	4.50	3.50	2.25 3.00	<b>4.</b> 25 <b>4</b> .25	3.71	
<ol> <li>Physical distribution</li> <li>Physical distribution</li> <li>Middlement the union as the</li> </ol>	4.25	4.25	4.00	4.50	4.75	4.00	3.75	4.50	5.00	3.50	4.00	4.75 4.75	4.27	
5. Middlemen, functions performed 6. Direct on indianate channel	3.50	3.00	<b>4</b> .00	4.25	4.00	2.75	3.50	4.25	3.00	3.00	3.25	3.00	3.46	
7. Channel leadershipthe union	3.25	3.75	2.50	2.50	3.00	2.25	3.00	3.75	3.00	2.25	4.25	4.50	3.17	
as the channel captain 8. Pushing and pulling through +ho channels	4.00	3.25	3.75	4.25	4.25	2.75	3.75	3.75	4.25	3.25	3.50	4.50	3.77	20
one cuanners 9. Product-market commitment 10. Time and space utility	<b>4.0</b> 0 3.50	<b>4</b> .00 <b>4</b> .00	2.50 3.50	<b>4</b> .00 <b>4</b> .00	<b>4</b> .00 <b>4</b> .50	3.50 3.25	<b>4.00</b> <b>4.00</b>	3.75 3.50	2.50 4.75	2.75 3.50	3.00 3.75	<b>4</b> .25 <b>4</b> .25	3.52 3.88	10
Price Concepts:														
<ol> <li>Price versus nonprice competit</li> <li>List price</li> <li>List price</li> <li>Discounts and allowances</li> <li>Functional discounts</li> <li>Quantity discounts</li> <li>Unit pricing</li> <li>Turnover (stockturn) rate</li> <li>Full-line pricing</li> <li>Penetration pricing</li> <li>Skimming pricing</li> </ol>	ion 4.00 3.75 4.75 4.25 3.50 3.50 3.50 3.50 3.50 3.50 3.50 3.5	<b>4.00</b> <b>4.00</b> <b>4.00</b> <b>4.00</b> <b>4.00</b> <b>4.00</b> <b>4.00</b> <b>4.00</b> <b>4.00</b> <b>4.00</b> <b>4.00</b> <b>4.00</b> <b>5.0</b>	<b>3.50</b> <b>3.50</b> <b>3.50</b> <b>3.50</b> <b>3.50</b> <b>3.50</b> <b>3.50</b> <b>3.50</b> <b>3.50</b>	3.75 4.50 4.50 2.50 3.25 3.25 4.75 4.00	3.50 3.50 3.50 4.25 4.25 3.75 3.75 3.75	<b>4.00</b> <b>4.00</b> <b>3.50</b> <b>3.00</b> <b>3.25</b> <b>3.25</b> <b>3.75</b> <b>3.75</b> <b>3.00</b> <b>3.00</b>	<b>4.25</b> <b>4.25</b> <b>4.25</b> <b>4.25</b> <b>4.25</b> <b>4.25</b> <b>4.25</b> <b>4.25</b> <b>4.25</b> <b>4.25</b> <b>4.25</b> <b>4.25</b>	<b>4.75</b> <b>4.75</b> <b>4.50</b> <b>3.25</b> <b>3.75</b> <b>3.75</b> <b>4.50</b> <b>4.50</b> <b>4.50</b> <b>4.50</b> <b>4.25</b>	3.75 4.75 3.75 3.75 4.75 5.00 5.00 5.00 5.00	<b>4.25</b> <b>4.25</b> <b>4.25</b> <b>4.50</b> <b>4.50</b> <b>3.25</b> <b>3.25</b> <b>3.25</b> <b>3.25</b> <b>3.25</b> <b>3.25</b> <b>3.25</b> <b>3.25</b> <b>3.25</b>	<b>4.00</b> <b>4.50</b> <b>4.50</b> <b>4.25</b> <b>4.25</b> <b>4.25</b> <b>3.75</b> <b>3.75</b>	<b>4.50</b> <b>4.75</b> <b>4.75</b> <b>4.25</b> <b>4.50</b> <b>3.75</b> <b>4.50</b> <b>3.75</b> <b>4.50</b> <b>4.75</b> <b>4.75</b>	3.98 4.04 3.71 3.71 3.73 3.73 3.74 3.73 3.74 3.73 3.74 3.73 3.74 3.73 3.73	

TABLE 3-14.--(Continued).

206

APPENDIX C-6

TABLE 3-15: QUESTIONNAIRE STATEMENT

RESPONSE DISTRIBUTION

	Column Number						
Statement Number	l Strongly Agree	2 Agree	3 Uncertain or Undecided	4 Disagree	5 Strongly Disagree		
1 2 3 4	3 1 1 2	6 8 10 8	2 1 - 1	1 1 1	1		
5 6 7 8 9	3 - 2 6 -	8 5 6 5 11	1 2 1 -	1 4 3 1 1	- 1 - -		
10 11 12 13 14 15	4 2 3 3 4 2	8 10 9 7 5 6	- - 1 1	- - - 2 3	- - 1 - 1		
16 17 18 19 20	2 2 2 3 3	9 9 6 7 8	1	- 1 4 1 1	- - - -		
21 22 23 24 25	5 1 - 2 3	1 4 11 8 8	5 1 1 -	- 3 - 1 1	1 3 - 1		
26 27 28 29 30	3 2 3 4 2	9 7 8 6 6	- 1 - 1	- 2 - 1 3	- - 1		
31 32 33 34 35	1 1 2 1	6 6 7 10 7	2 - - 3	3 4 3 2 1	- - -		

TABLE 3-15.--Questionnaire Statement Response Distribution.

			Column Number	•	
Statement Number	l Strongly Agree	2 Agree	3 Uncertain or Undecided	4 Disagree	5 Strongly Disagree
36	-	9	1	2	-
37	3	7	-	1	ı
38	6	6	-	-	-
39	6	5	-	1	-
40	5	5	2	-	-
41	-	3	2	5	2
42	1	8	-	3	-
43	1	9	1	ĩ	-
<b>4</b> 4	3	8	1	-	-
45	-	2	2	7	1
46	4	8	_	_	_
40	-	6	1	4	]
48	-	5	-	6	i
49	4	8	-	-	-
50	1	3	١	7	-
51	2	4	_	5	1
52	ī	6	2	2	i
53	1	8	ī	2	-
54	-	4	-	7	1
55	1	6	1	4	-
56	1	6	2	3	-
57	2	10	-	-	-
58	4	8	-	-	-
59	3	9	-	-	-
60	-	4	3	5	-
61	-	6	-	5	1
62	-	9	-	ĩ	2
63	2	9	1	-	-
64	4	8	-	-	-
65	-	7	1	3	1
66	-	5	1	3	3
67	4	8	-	-	-
68	-	9	2	1	-
69	3	9	-	-	-
70	6	6	-	-	-

TABLE 3-15.--Continued.

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	Column Number				
Statement Number	l Strongly Agree	2 Agree	3 Uncertain or Undecided	4 Disagree	5 Strongly Disagree
71 72	1 3	9 7	2 1	-1	-
73 74 75	3 3 1	7 8 9	2 1 2	- - -	- - -
76 77 78	2 3 4	9 9 8	1 - -	- - -	- -
79 80	6 4	6 8	-	-	-
81 82 83 84 85	6 - 1 1	5 7 7 7 12	1 2 2 2	- 3 2 1 -	- 1
86 87 88 89 90	1 2 2 6	8 9 9 8 6	1 1 - 1	2 - 1 1 -	- - - -
91 92 93 94 95	6 4 1 3 3	5 7 10 9 3	1 1 - 1	- - 1 - 5	- - - -
96 97 98 99 100	1 1 - 2	8 5 6 9 8	1 3 2 1 1	1 2 4 2 -	1 1 - 1
101 102 103 104 105	5 6 2 2	4 5 9 7 6	1 - - 1 -	2 1 1 2 6	- - - -

TABLE 3-15.--Continued.

 Column	Number

			COTUMIT NUMBER			
Statement Number	l Strongly Agree	2 Agree	3 Uncertain or Undecided	4 Disagree	5 Strongly Disagree	
106 107 108 109 110	1 - 5 - 1	5 2 7 7 8	- 2 - 3 3	6 4 - 1 -	- 4 - 1 -	
111 112 113 114 115	4 4 - 2	6 4 9 8	1 2 - 1	1 2 3 1 3	- - 1 -	
116 117 118 119 120	- 1 2 4	8 8 9 9 7	1 2 1 -	3 2 1 1 1	- - - -	
121 122 123 124 125	1 2 4 9	6 10 8 7 2	1 - - -	4 - - 1	- - 1 -	
126 127 128 129 130	9 2 1 1 5	3 9 8 9 7	- - - 1 -	- 1 3 1 -	- - - -	
131 132 133 134 135	1 4 2 4 2	10 6 9 4 8	- - - -	1 2 1 1 2	- - 3 -	
136 137 138 139 140	3 1 2 2 2	9 9 6 10 5	- - 1 - 1	- 2 2 4	- 1 -	

TABLE 3-15.--Continued.

	an an i an ann an an an 1990 an 1991 an 1997 an		Column Number	^	
Statement Number	l Strongly Agree	2 Agree	3 Uncertain or Undecided	4 Disagree	5 Strongly Disagree
141 142 143 144 145	2 3 - - 1	5 9 4 6 10	2 - 3 2 1	3 - 5 3 -	- - 1 -
146 147 148 149 150	5 1 6 3 2	6 8 6 8 10	1 1 - -	2	- - - -
151 152 153 154 155	6 7 1 -	6 5 11 7 5	- - - 1	- - 1 4 6	- - - -
156 157 158 159 160	2 2 1 5	9 7 7 8 7	- 1 2 -	1 2 1 2 -	- - 1 -

TABLE 3-15.--Continued.

APPENDIX C-7

TABLE 3-16: QUESTIONNAIRE STATEMENT WEIGHTED SCORE, TOTAL WEIGHTED SCORE, AND TOTAL MEAN SCORE

Statement		Assi	gned Wei	ghts ^a		Total	Total
Number	5	4	3	2	1	Score	Score
1 2 3 4 5	15 5 5 10 15	24 32 40 32 32	6 3 - 3 3	2 2 2 -	- 1 - -	47 43 47 47 50	3.92 3.58 3.92 3.92 4.17
6 7 8 9 10	10 30 - 20	20 24 20 44 32	6 3 - - -	8 6 2 2 -	1 - - -	35 43 52 46 52	2.92 3.58 4.33 3.83 4.33
11 12 13 14 15	10 15 15 20 10	40 36 28 20 24	- - 3 -	- - 4 6	- 1 1	50 51 47 47 41	4.17 4.25 3.92 3.92 3.42
16 17 18 19 20	10 10 15 15	36 36 24 28 32	3 - - 3 -	- 2 8 2 2	- - -	49 48 42 48 49	4.08 4.00 3.50 4.00 4.08
21 22 23 24 25	25 5 - 10 15	4 16 44 32 32	15 3 - -	- 6 - 2 2	1 3 - 1 -	45 33 47 45 49	3.75 2.75 3.92 3.75 4.08
26 27 28 29 30	15 10 15 20 10	36 28 32 24 24	- 3 - 3	- 4 - 2 6	- - 1 -	51 45 50 47 43	4.25 3.75 4.17 3.92 3.58
31 32 33 34 35	5 5 10 - 5	24 24 28 40 28	6 - - 9	6 8 6 4 2	- 1 - -	41 38 44 44 44	3.42 3.17 3.67 3.67 3.67 3.67

TABLE 3-16.--Questionnaire Statement Weighted Score, Total Weighted Score, and Total Mean Score.

Statement		Assign	ed Weig	ghts ^a		Total	Total
Number	5	4	3	2	1	- weighted Score	Score
36 37 38 39 40	- 15 30 30 25	36 28 24 20 20	3 - - 6	4 2 - 2	- 1 - -	43 46 54 52 51	3.58 3.83 4.50 4.33 4.25
41 42 43 44 45	- 5 15 -	12 32 36 32 8	6 - 3 3 6	10 6 2 - 14	2 - - 1	30 43 46 50 29	2.50 3.58 3.83 4.17 2.42
46 47 48 49 50	20 - - 20 5	32 24 20 32 12	- 3 - 3	- 8 12 - 14	- 1 - -	52 36 33 52 34	4.33 3.00 2.75 4.33 2.83
51 52 53 54 55	10 5 - 5	16 24 32 16 24	- 6 3 - 3	10 4 4 14 8	1 1 1 1	37 40 44 31 40	3.08 3.33 3.67 2.58 3.33
56 57 58 59 60	5 10 20 15	24 40 32 36 16	6 - - 9	6 - - 10	- - - -	41 50 52 51 35	3.42 4.17 4.33 4.25 2.92
61 62 63 64 65	- 10 20	24 36 36 32 28	- 3 - 3	10 2 - 6	1 2 - 1	35 40 49 52 38	2.92 3.33 4.08 4.33 3.17
66 67 68 69 70	- 20 - 15 30	20 32 36 36 24	3 - - -	6 - 2 -	3 - - -	32 52 44 51 54	2.67 4.33 3.67 4.25 4.50

TABLE 3-16.--Continued.

Statement		Assig	ned We	ightsa	<del></del>	Total	Total
Number	5	4	3	2	1	Score	Score
71 72 73 74 75	5 15 15 15 5	36 28 28 32 36	6 3 6 3 6	- 2 - -	- - - -	47 48 49 50 47	3.92 4.00 4.08 4.17 3.92
76 77 78 79 80	10 15 20 30 20	36 36 32 24 32	3 - - - -	- - - -	- - - -	49 51 52 54 52	4.08 4.25 4.33 4.50 4.33
81 82 83 84 85	30 - 5 5 -	20 28 28 28 48	3 6 6 -	- 6 4 2 -	- - 1 -	53 40 43 42 48	4.42 3.33 3.58 3.50 4.00
86 87 88 89 90	5 10 10 10 30	32 36 36 32 24	3 3 - 3 -	4 - 2 -	- - - -	44 49 48 47 54	3.67 4.08 4.00 3.92 4.50
91 92 93 94 95	30 20 5 15 15	20 28 40 36 12	3 3 - 3	- 2 - 10	- - - -	53 51 47 51 40	4.42 4.25 3.92 4.25 3.33
96 97 98 99 100	5 5 - 10	32 20 25 36 32	3 9 6 3 3	2 4 8 4 -	1 1 - 1	43 39 38 43 46	3.58 3.25 3.17 3.58 3.83
101 102 103 104 105	25 30 10 10	16 20 36 28 24	3 - - 3 -	4 2 2 4 12	- - - -	48 52 48 45 36	4.00 4.33 4.00 3.75 3.00

TABLE 3-16.--Continued.

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Statement		Assig	ned We	ights ^a	<del></del>	Total	Total
Number	5	4	3	2	1	Score	Score
106 107 108 109 110	5 - 25 - 5	20 8 28 28 32	- 6 - 9 9	12 8 - 2 -	- 4 - 1 -	37 26 53 40 46	3.08 2.17 4.42 3.33 3.83
111 112 113 114 115	20 20 - 10 -	24 16 32 36 32	3 6 - 3	2 4 6 2 6	- - 1 -	49 46 39 48 41	4.08 3.83 3.25 4.00 3.42
116 117 118 119 120	- 5 10 20	32 32 36 36 28	3 6 3 -	6 4 2 2 2	- - -	41 42 46 48 50	3.42 3.50 3.83 4.00 4.17
121 122 123 124 125	5 10 20 20 45	24 40 32 28 8	3 - - -	8 - - 2	- - 1 -	40 50 52 49 55	3.33 4.17 4.33 4.08 4.58
126 127 128 129 130	45 10 5 25	12 36 32 36 28	- - 3 -	- 2 6 2 -	- - - -	57 48 43 46 53	4.75 4.00 3.58 3.83 4.42
131 132 133 134 135	5 20 10 20 10	40 24 36 16 32	- - - -	2 4 2 2 4	- - 3 -	47 48 48 41 46	3.92 4.00 4.00 3.42 3.83
136 137 138 139 140	15 5 10 10 10	36 36 24 40 20	- - 3 - 3	- 4 - 8	- - 1 -	51 45 42 50 41	4.25 3.75 3.50 4.17 3.42

TABLE 3-16.--Continued.

Statement		Assig	ned We	ights ^a	<b></b>	Total	Total
Number	5	4	3	2	1	Score	Score
141 142 143 144 145	10 15 - 5	20 36 16 24 40	6 - 9 6 3	6 - 10 6 -	- - 1 -	43 51 35 37 48	3.50 4.25 2.92 3.08 4.00
146 147 148 149 150	25 5 30 15 10	24 32 24 32 40	3 3 - - -	- 4 - 2 -	- - - -	52 44 54 49 50	4.33 3.67 4.50 4.08 4.17
151 152 153 154 155	30 35 - 5 -	24 20 44 28 20	- - - 3	- 2 8 12	- - - -	54 55 46 41 35	4.50 4.58 3.83 3.42 2.92
156 157 158 159 160	10 10 10 5 26	36 28 28 32 28	- 3 6 -	2 4 2 4 -	- - 1 -	48 45 46 42 53	4.00 3.75 3.83 3.50 4.42

TABLE 3-16.--Continued.

^aAssigned Weights:

- 5 = Strongly Agree
  4 = Agree
  3 = Uncertain or Undecided
  2 = Disagree
  1 = Strongly Disagree

APPENDIX D

APPENDIX D-1

TABLE 4-6: DECISION MATRIX--INDIVIDUAL RANKING

Respondent No. 1:	Product	Promotion	Place	Price
Application Utilization Insight Effectiveness	4 3.5 <u>3</u> 14.5	$2^{2}_{2}_{3.5}_{\underline{3}}_{\underline{10.5}}$	$1 \\ 1 \\ 2 \\ 1 \\ 5$	3 3 1 <u>3</u> 10
	Application	Utilization	Insight	Effectiveness
Product Promotion Place Price	3.5 1.5 1.5 <u>3</u> 9.5	3.5 3 3 <u>3</u> 12.5	$1 \\ 1.5 \\ 4 \\ 1 \\ 7.5$	2 4 1.5 <u>3</u> 10.5
Respondent No. 2:	Product	Promotion	Place	Price
Application Utilization Insight Effectiveness	4 4 3 <u>3.5</u> 14.5	1 1 3 <u>3.5</u> 8.5	3 2.5 1 <u>1</u> 7.5	2 2.5 3 2 9.5
	Application	Utilization	Insight	Effectiveness
Product Promotion Place Price	1 1 3 2 7	3 2 4 <u>3</u> 12	3 3.5 2 4 12.5	3 3.5 1 <u>1</u> 8.5

# TABLE 4-6.--Decision Matrix--Individual Ranking.

TABLE 4-6.--Continued.

Respondent No. 3:	Product	Promotion	Place	Price
Application Utilization Insight Effectiveness	4 3 3 <u>4</u> 14	1 1 2 1 5	3 2 1 2 8	2 4 4 <u>3</u> 13
-	Application	Utilization	Insight	Effectiveness
Product Promotion Place Price	3 1.5 2.5 <u>1</u> 8	2 1.5 2.5 <u>4</u> 10	1 4 1 <u>3</u> 9	4 3 4 <u>2</u> 13
Respondent No. 4:	Product	Promotion	Place	Price
Application Utilization Insight Effectiveness	3 1 4 <u>2</u> 10	1 2 1 <u>1</u> 5	4 3 3 <u>4</u> 14	2 4 2 <u>3</u> 11
	Application	Utilization	Insight	Effectiveness
Product Promotion Place Price	3.5 4 3 <u>2</u> 12.5	1 2 1.5 <u>3.5</u> 8	3.5 3 1.5 <u>1</u> 9	2 1 4 <u>3.5</u> 10.5

## TABLE 4-6.--Continued.

Respondent No.	5:	Product	Promotion	Place	Price
Application Utilization Insight Effectiveness		4 4 <u>4</u> 16	2.5 3 <u>3</u> <u>2.5</u> 11	2.5 1.5 2 <u>2.5</u> 8.5	1 1.5 1 <u>1</u> 4.5
	-	Application	Utilization	Insight	Effectiveness
Product Promotion Place Price		1 1 2 1 5	2.5 4 2 <u>4</u> 12.5	2.5 3 2 2 9.5	4 2 4 <u>3</u> 13
Respondent No.	6:	Product	Promotion	Place	Price
Application Utilization Insight Effectiveness		4 2.5 4 <u>3.5</u> 14	1 2.5 3 2 8.5	2.5 1 <u>1</u> <u>3.5</u> 8	2.5 4 2 1 9.5
		Application	Utilization	Insight	Effectiveness
Product Promotion Place Price		2 1 2.5 <u>2</u> 7.5	1 2 2.5 <u>4</u> 9.5	3 3.5 1 <u>1</u> 8.5	4 3.5 4 <u>3</u> 14.5

Respondent No. 7:	Product	Promotion	Place	Price
Application Utilization Insight Effectiveness	4 2 1.5 <u>3.5</u> 11	2 3 4 <u>1</u> 10	1     1     1.5     2     5.5	3 4 3 <u>3.5</u> 13.5
-	Application	Utilization	Insight	Effectiveness
Product Promotion Place Price	3 1 1 2 7	2 4 3 <u>3.5</u> 12.5	1 3 2 1 7	4 2 4 <u>3.5</u> 13.5
Respondent No. 8:	Product	Promotion	Place	Price
Application Utilization Insight Effectiveness	3.5 1 <u>1</u> <u>2.5</u> 8	1 3.5 2 <u>2.5</u> 9	3.5 3.5 3 <u>1</u> 11	2 2 4 <u>4</u> 12
	Application	Utilization	Insight	Effectiveness
Product Promotion Place Price	4 1.5 3.5 <u>2</u> 11	2 4 3.5 <u>1</u> 10.5	$1 \\ 1.5 \\ 2 \\ 3 \\ 7.5 $	3 3 1 <u>4</u> 11

Respondent No. 9:	Product	Promotion	Place	Price
Application Utilization Insight Effectiveness	3 1 3.5 <u>3</u> 10.5	1.5 2 3.5 <u>2</u> 9	1.5 3 1 <u>4</u> 9.5	4 2 <u>1</u> 11
	Application	Utilization	Insight	Effectiveness
Product Promotion Place Price	2.5 2 1 <u>4</u> 9.5	1 1 2.5 6.5	4 4 <u>3</u> <u>2.5</u> 13.5	2.5 3 4 <u>1</u> 10.5
Respondent No. 10:	Product	Promotion	Place	Price
Application Utilization Insight Effectiveness	3.5 2 3 <u>3</u> 11.5	2 2 2 2 8	1 2 1 1 5	3.5 $4$ $4$ $4$ $15.5$
	Application	Utilization	Insight	Effectiveness
Product Promotion Place Price	4 4 1.5 <u>2</u> 11.5	1.5 2.5 4 <u>3</u> 11	1.5 1 1.5 <u>1</u> 5	3 2.5 3 <u>4</u> 12.5

TABLE 4-6.--Continued.

Respondent No.	11:	Product	Promotion	Place	Price
Application Utilization Insight Effectiveness		1 1 1 1 4	2 2 3 2 9	3 3 <u>3.5</u> 12.5	4 4 3 <u>3.5</u> 14.5
	•	Application	Utilization	Insight	Effectiveness
Product Promotion Place Price		$     \begin{array}{r}       1 \\       1.5 \\       \underline{3} \\       \overline{6.5}     \end{array} $	2.5 2 4 <u>4</u> 12.5	4 3 1.5 <u>1</u> 9.5	2.5 4 3 <u>2</u> 11.5
Respondent No.	12:	Product	Promotion	Place	Price
Application Utilization Insight Effectiveness		3 2 2 2 9	1 1 3 1 6	2 3 4 <u>3</u> 12	4 4 1 4 13
		Application	Utilization	Insight	Effectiveness
Product Promotion Place Price		4 3 1 <u>2.5</u> 10.5	2.5 2 2.5 9	1 4 3 1 9	2.5 1 4 <u>4</u> 11.5

APPENDIX D-2

FREQUENCY DISTRIBUTION -- AGGREGATE

#### APPENDIX D-2

#### FREQUENCY DISTRIBUTION -- AGGREGATE

The aggregate frequency distribution data recorded in Table 3-17 were bar graphed in Figure 3-1. The table indicated the number of questionnaire statements which received a given mean response. Figure 3-1 is repeated here as Figure D-2 with two additions, a "transition value" and a median value.

While a reasonable cut-off point could have been established at several points along the mean score (X) axis, we arbitrarily selected a mean score value of 3.0. We feel that this is the most justifiable point on the continuum. Respondents who are not making use in their personnel operation of the marketing concepts tested here would have tended to answer Disagree or Strongly Disagree to those statements. Respondents who are using the concepts would have tended to answer Strongly Agree or Agree to those statements. Therefore an Uncertain or Undecided answer would denote the transition point between use or nonuse of the marketing concept by the personnel practitioner. If all twelve respondents had answered Uncertain or Undecided to a given statement or if six respondents had answered Strongly Agree or Agree and six respondents Strongly Disagree or Disagree to a given statement, the mean score in these three instances would have been 3.0. For these reasons, that mean score

228

was selected as the cut-off point or "transition value," the point of transition between use and nonuse of the concept by the personnel practitioner. As shown in Figure D-2, responses to fifteen statements among the 160 contained in the survey questionnaire exhibited mean scores of 3.0 or less, while 145 statements exhibited a mean score greater than 3.0. This represents 9.38 percent and 90.62 percent of the total statements, respectively.

The median value may also serve as a reasonable cut-off point on the frequency distribution. Identification of the median point would indicate that one-half (77) of the questionnaire statements received a mean score of 3.83 or less, while the other half (83) received a score of 3.92 or greater. These two values would indicate that, on an aggregate basis, the respondents answered Agree to a majority of the statements. This would mean that the respondents, as a group, are operationalizing the majority of the marketing concepts included in the questionnaire. In fact, the group responses gave all statements an average overall mean score of 3.80.



Figure D-2.--Aggregate Statement Frequency Distribution Bar Graph--Transition and Median Values.

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APPENDIX D-3

HYPOTHESES DECISION MATRIX -- AGGREGATE

### APPENDIX D-3

## HYPOTHESES DECISION MATRIX -- AGGREGATE

The hypotheses matrix shown in Table 3-18 has been evaluated in an effort to substantiate or reject the sixteen hypotheses stated in Chapter I. Table D-3 presents the stated hypotheses and the research results of the hypotheses matrix.

Hypthesis Number	Bypothesis Statement	Mean Score
1	The marketing concepts of the product variable are applicable to personnel management.	3.91
2	The marketing concepts of the product variable are today utilized in structuring the personnel program.	3.70
3	The marketing concepts of the product variable provides additional insight into the personnel program.	3.82
4	The marketing concepts of the product variable increases the effectiveness of the personnel program.	3.96
5	The marketing concepts of the promotion variable are applicable to personnel management.	3.58
6	The marketing concepts of the promotion variable are today utilized in structuring the personnel program.	3.67
7	The marketing concepts of the promotion variable provides additional insight into the personnel program.	3.38
TABLE D-3.--Continued.

Hypothesis Number	Hypothesis Statement	Mean Score
8	The marketing concepts of the promotion variable increases the effectiveness of the personnel program.	3.70
9	The marketing concepts of the place variable are applicable to personnel management.	3.66
10	The marketing concepts of the place variable are today utilized in structuring the personnel program.	3.80
11	The marketing concepts of the place variable provides additional insight into the personnel program.	3.67
12	The marketing concepts of the place variable increases the effectiveness of the personnel program.	3.88
13	The marketing concepts of the price variable are applicable to personnel management.	3.87
14	The marketing concepts of the price variable are today utilized in structuring the personnel program.	4.03
15	The marketing concepts of the price variable provides additional insight into the personnel program.	3.78
16	The marketing concepts of the price variable increases the effectiveness of the personnel program.	3.99

These sixteen hypotheses are all substantiated by the research findings, as shown in Figure D-2 in Appendix D-2. Each hypothesis exhibits a mean value greater than 3.0, the transition value.

APPENDIX D-4

MARKETING CONCEPTS--QUADS--AGGREGATE

#### APPENDIX D-4

#### MARKETING CONCEPTS--QUADS--AGGREGATE

The forty marketing concepts tested in the survey have been evaluated to determine those that personnel practitioners tend to score at a higher mean level. This is accomplished by the addition of the mean scores of answers to the four statements which were constructed for each concept as shown in Table 3-6 (also see Table 3-21) presented in Table D-4.

### TABLE D-4.--Marketing Concepts--Quads--Aggregate.

Marketing Concepts	Mean Score

### Product Concepts:

Total product	3.83
Tangible and intangible aspects of the product	3.75
Exchange (transaction-barter)	4.15
Product design	3.83
Product life cycle	3.90
Portfolio concept	3.54
Brandingassurance of quality	4.06
Brandingidentification	3.52
Packagingappearance	3.65
Packagingprotection	4.23

## TABLE D-4.--Continued.

Marketing	Concepts	

## Mean Score

# Promotion Concepts:

Communicationstwo-way model	3.52
Management information systems	3.13
Kinds of sales presentationsselling-formula theory	3.40
Kinds of sales presentationsneed-satisfaction theory	3.25
Mass advertising	3.92
Advertisingto inform	3.67
Advertisingto persuade	3.46
Media selection	4.17
Personal sellingqualifying prospects	4.06
Market segmentation	4.35

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# Place Concepts:

Total systems concepts	3.71
Payoff-tolerance function	3.94
Physical distribution	4.27
Middlemen, the union as the	3.77
Middlemen, functions performed	3.46
Direct or indirect channels	4.02
Channel leadershipthe union as the channel captain	3.17
Pushing and pulling through the channels	3.77
Product-market commitment	3.52
Time and space utility	3.88

## Price Concepts:

Price versus nonprice competition	3.98
List price	4.23
Discounts and allowances	4.04
Functional discounts	3.88
Quantity discounts	3.71
Unit pricing	3.44
Turnover (stockturn) rate	4.13
Full-line pricing	4.33
Penetration pricing	3.54
Skimming pricing	3.88

As stated in Appendix D-2, the transition value was established at a mean score of 3.0. All forty marketing concepts tested were rated in excess of the transition value by the respondents.

