DOMM, Donald Richard, 1935-  
A STUDY OF THE PERSONALITY, ATTITUDE  
TOWARD OTHERS, AND ATTITUDE TOWARD  
SERVICE OF THE SERVICE-ORIENTED EMPLOYEE.  

The Ohio State University, Ph.D., 1968  
Business Administration
A STUDY OF THE PERSONALITY, ATTITUDE TOWARD OTHERS, AND ATTITUDE TOWARD SERVICE OF THE SERVICE-ORIENTED EMPLOYEE

DISSERTATION

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

By

Donald Richard Domm, B.S., M.A.

* * * * *

The Ohio State University
1968

Approved by

[Signature]
Adviser
Department of Business Organization
ACKNOWLEDGMENTS

I would like to extend appreciation to Professor C. B. Hicks for his willing assistance and guidance and for providing the freedom for a stimulating research experience.

Appreciation is also extended to Professor R. Stogdill and Professor R. Powell for their assistance and many contributions.
VITA

April 24, 1935  Born - Benton Harbor, Michigan

1961  B.S., Bowling Green State University, Bowling Green, Ohio

1963  M.A., The Ohio State University, Columbus, Ohio

1963-1964  Assistant to the Dean of Men, The Ohio State University, Columbus, Ohio

1965-1966  Assistant to the Coordinator of Graduate Business Programs, The Ohio State University, Columbus, Ohio

1966-1967  Assistant Director of Admissions, The Ohio State University, Columbus, Ohio

1967  Assistant Professor, Department of Behavioral Management, College of Business, University of Houston, Houston, Texas

FIELDS OF STUDY

Major Field: Management

Minor Fields: Behavioral Science, Economics, Marketing

iii
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACKNOWLEDGMENTS</td>
<td>ii</td>
</tr>
<tr>
<td>VITA</td>
<td>iii</td>
</tr>
<tr>
<td>Chapter</td>
<td></td>
</tr>
<tr>
<td>I  THE PROBLEM</td>
<td>1</td>
</tr>
<tr>
<td>Introduction</td>
<td>1</td>
</tr>
<tr>
<td>The Problem</td>
<td>9</td>
</tr>
<tr>
<td>Sub-Problems</td>
<td>10</td>
</tr>
<tr>
<td>Significance of the Problem</td>
<td>13</td>
</tr>
<tr>
<td>Hypotheses</td>
<td>15</td>
</tr>
<tr>
<td>Limitations of the Study</td>
<td>22</td>
</tr>
<tr>
<td>Definitions</td>
<td>24</td>
</tr>
<tr>
<td>Summary</td>
<td>26</td>
</tr>
<tr>
<td>II REVIEW OF THE LITERATURE</td>
<td>27</td>
</tr>
<tr>
<td>Service, A Theoretical Perspective</td>
<td>27</td>
</tr>
<tr>
<td>Empirical Research Relating to the Effect of Attitude</td>
<td>32</td>
</tr>
<tr>
<td>Summary</td>
<td>36</td>
</tr>
<tr>
<td>III METHODOLOGY</td>
<td>38</td>
</tr>
<tr>
<td>The Instruments</td>
<td>38</td>
</tr>
<tr>
<td>Introduction</td>
<td>38</td>
</tr>
<tr>
<td>Reliability</td>
<td>39</td>
</tr>
<tr>
<td>Validity</td>
<td>41</td>
</tr>
<tr>
<td>Instrument Construction and Conformity with Acceptable Test Construction Procedure</td>
<td>42</td>
</tr>
<tr>
<td>Related Empirical Research</td>
<td>44</td>
</tr>
<tr>
<td>Peer Rating Instrument</td>
<td>49</td>
</tr>
<tr>
<td>Attitude Questionnaire</td>
<td>50</td>
</tr>
<tr>
<td>Attitudes Toward Others</td>
<td>50</td>
</tr>
</tbody>
</table>
### TABLE OF CONTENTS--Continued

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitudes Toward Service</td>
<td>51</td>
</tr>
<tr>
<td>Selection of the Sample</td>
<td>53</td>
</tr>
<tr>
<td>Administration of the Instruments</td>
<td>54</td>
</tr>
<tr>
<td>Scoring Methodology</td>
<td>56</td>
</tr>
<tr>
<td>Statistical Analysis of the Data</td>
<td>58</td>
</tr>
<tr>
<td>The Attitude Questionnaire</td>
<td>59</td>
</tr>
<tr>
<td><strong>IV THE FINDINGS</strong></td>
<td>64</td>
</tr>
<tr>
<td>The 16 P.F.</td>
<td>64</td>
</tr>
<tr>
<td>Statistical Analysis of Specific Personality Factors</td>
<td>65</td>
</tr>
<tr>
<td>I. Cyclothymia versus Schizothymia</td>
<td>65</td>
</tr>
<tr>
<td>II. Intelligence</td>
<td>66</td>
</tr>
<tr>
<td>III. Emotional Stability versus Emotional Instability</td>
<td>67</td>
</tr>
<tr>
<td>IV. Submissive versus Dominance</td>
<td>68</td>
</tr>
<tr>
<td>V. Surgency versus Desurgency</td>
<td>69</td>
</tr>
<tr>
<td>VI. Expedient versus Conscientiousness</td>
<td>70</td>
</tr>
<tr>
<td>VII. Threctia versus Parmia</td>
<td>71</td>
</tr>
<tr>
<td>VIII. Harria versus Premisa</td>
<td>72</td>
</tr>
<tr>
<td>IX. Alaxia versus Protension</td>
<td>73</td>
</tr>
<tr>
<td>X. Praxernia versus Autia</td>
<td>74</td>
</tr>
<tr>
<td>XI. Naiveté versus Shrewdness</td>
<td>75</td>
</tr>
<tr>
<td>XII. Placid versus Apprehensive</td>
<td>76</td>
</tr>
<tr>
<td>XIII. Conservatism versus Radicalism</td>
<td>77</td>
</tr>
<tr>
<td>XIV. Group-tied versus Self-sufficient</td>
<td>78</td>
</tr>
<tr>
<td>XV. Casual versus Controlled</td>
<td>79</td>
</tr>
<tr>
<td>XVI. Low Ergic Tension versus Ergic Tension</td>
<td>80</td>
</tr>
<tr>
<td>The Attitude Questionnaire</td>
<td>81</td>
</tr>
<tr>
<td>Attitudes Toward Others</td>
<td>81</td>
</tr>
</tbody>
</table>
TABLE OF CONTENTS—Continued

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude Toward Service</td>
<td>82</td>
</tr>
<tr>
<td>Exploratory sub-problems</td>
<td></td>
</tr>
<tr>
<td>Relating to Service</td>
<td>83</td>
</tr>
<tr>
<td>Reliability</td>
<td>89</td>
</tr>
<tr>
<td>Attitude Toward Others</td>
<td>89</td>
</tr>
<tr>
<td>Attitude Toward Service</td>
<td>90</td>
</tr>
<tr>
<td>Summary</td>
<td>91</td>
</tr>
<tr>
<td>Discussion</td>
<td>93</td>
</tr>
</tbody>
</table>

V SUMMARY, CONCLUSIONS AND RECOMMENDATIONS
FOR FUTURE RESEARCH .......................... 97

<table>
<thead>
<tr>
<th></th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summary</td>
<td>97</td>
</tr>
<tr>
<td>Conclusions</td>
<td>99</td>
</tr>
<tr>
<td>Recommendations for Future Research</td>
<td>101</td>
</tr>
</tbody>
</table>

APPENDIX .................................... 106

BIBLIOGRAPHY ................................ 117
CHAPTER I

THE PROBLEM

Introduction

Initially, within the United States, a man was predominately isolated. He bonded together with other men for the purposes of pleasure and protection, but the drawing together of large numbers of men was principally due to negative motivation, protection from harm or annihilation.

While this theory of original unification has been historically true, it is also valid in contemporary societies as is demonstrated by the formation of the "Allies" in World War I and II, N.A.T.O., S.E.A.T.O., et cetera. In the contemporary period, man has, in addition, relinquished a degree of his autonomy and/or individuality for endeavors which are most positive in nature, more enhancing to the well-being and the development of mankind. With the recent rapid geometric growth of our population, new technical, business, and industrial concepts were conceived to solve the problems
of the increased number of people. Government became complex, the industrial revolution created business and industrial giants, educational institutions bloomed and farming became a "business" with the problems of displaced "Oakies" and large capital investment. While the complex organizations in the various segments of the economy were required to meet the needs of the people (for example to support life), they were increasingly being used to enrich life. Individuals no longer bonded together to sustain only what they originally possessed. They began to use the concept of the organization to grasp goods and services at a level which was far above subsistence, to engage in the pursuit of education, to increase the productivity of industry, and to enjoy the benefits of recreational and cultural facilities. Organized man, operating through complex organizations, began to serve mankind in a manner and at a degree of proficiency which exceeded the vast majority of past societies.

The data in The Statistical Abstract of The United States illustrate the historical and projected growth of population and, thus, complex organizations within our society. In 1900, the population of the United States was 76,094,000; in 1950, 152,271,000; and in
1965, 194,583,000. Depending on the series adopted, the population for the year 1980 will be from 249 to 226 million.\(^1\) Barach indicates the historical and projected growth of various segments of the economy required to support this mass of humanity. He states that the Gross National Product in 1975 will be approximately 995.0 billions as compared to the Gross National Product in 1963 of 540.1 billions. The growth of the segment of the economy concerned with education is portrayed by the fact that, in 1960, the enrollment was 41,762,000 and the projection for 1975 is 53,916,000.

Initially a small scale endeavor, farming has also increased in size and complexity. For example, in the early 1960's, four percent of the nation's farms were 1,000 acres or more which totalled to over half the cropland. If those farms of 500 acres and over are included, big farms accounted for about 40 percent of the country's harvested cropland. The trend is for this increase in size and complexity to continue.\(^2\)

---


Because of the projected increase in population and in various segments of the economy, government will also increase in size and complexity. Barach states that

One out of seven employed civilians had a job at some level of government in 1962. Just as government is the nation's biggest employer, it is also industry's biggest customer. All governing units combined—federal, state, county, town, municipality, school district, and other special districts—totalled 91,236 in 1962.

Will the costs of government decline in the future? The prospects are they will not, and for the same reasons which keep costs and taxes high today.3

The above data indicate that size and complexity are a definite part of our present and future society. In spite of the complexities which are developing and which will continue to develop, society will expect organizations within society to satisfy the needs of society at a level of proficiency congruent with the past, if not at an increased level of proficiency. However, with the increase in complexity and number of organizations, satisfying the needs of society at an optimum level of service will become increasingly difficult. In spite of the difficulty, society will demand that its expectations be met.

3Ibid., pp. 87-88.
While society expects service, there is not general acceptance of the fact that service is a responsibility of organizations within society. For example, the difference in conclusions may be illustrated by labor, education, government, and medicine, which are generally in agreement that they do exist in order to serve mankind, and the conclusions of certain segments of business and industry. However, the difference of opinion within the business and industrial segments of the economy have not been resolved and have created active and heated debate.

Drucker, if one can interpret him literally, states that:

Management must always, in every decision and action, put economic performance first. It can only justify its existence and its authority by the economic results it produces.

The first definition of management is therefore that it is an economic organ, indeed the specifically economic organ of an industrial society. Every act, every decision, every deliberation of management has as its first dimension an economic dimension.⁴

From a slightly different perspective, R. C. Davis has reached the conclusion that service is the primary

---

objective of a business organization. He states that the
business organization is an economic institution.
It is created primarily for the purpose of
supplying the public with any goods or services
for which it has a legitimate need or desire.
Enjoyment of the right of private property
implies an obligation on the part of organized
business to supply the public with goods and
services of the desired quality in the desired
quantity, when and where they are needed at a
price that the public can afford to pay.  

In writing of the nature of the product and the
needs and desires of the customer, Keener supports the
conclusions of Davis regarding the importance of service.  
Heugy and Mitchell, focusing on the one-to-one relationship
which exists in personal selling, also support the con-
clusions of Davis.  
Davidson and Doody indicate that
service is of great importance and that the effort of the
organization may be nullified if service is not adequate
or if grievances become "excessive."  

---

5R. C. Davis, The Fundamentals of Top Management

6J. W. Keener, "Marketing's Job for the 1960's,"
in H. Parker, Ralph E. Brownless, and Robert Bartells,
Readings in Marketing (Columbus, Ohio: Charles E.

7Paul D. Converse, Harvey W. Heugy, and Robert
Mitchell, Elements of Marketing (New Jersey: Prentice-

8William R. Davidson and Alton F. Doody, Retailing
The writings of Davis, Keener, Converse, Harvey, Mitchell, Davidson and Doody support the contention that service is of prime importance to the business organization, both from the perspective of survival and the perspective of growth.

Thus, it is accepted that service is the prime objective of complex organizations within the areas of education, labor, medicine, government, and business and industry. However, past conceptualizations of service are stated predominately in terms of acts. This writer believes that these overt manifestations of service are merely superficial if they are not motivated by a sincere desire to be of service.

The essence of service is the concept that the individual or employee performs acts of service not only because it is his assigned function but because service is his orientation toward life and people. This concept of service is examined in greater detail in Chapter II.

In general terms, man has historically drawn together because of the need for protection and, on a more limited scale, for pleasure. These motivating reasons seem to be valid in contemporary society, but contemporary man has also relinquished his individuality
for the purpose of enhancing his well-being and development. With rapid population growth, the number and size of complex organizations which are used to meet the needs of man and to enhance his existence will increase greatly. While there is heated debate concerning the importance of and the responsibility for service within the business and industrial sector, complex organizations existing within society should, and do, exist primarily because of society's need for service.

Such a statement does not assume an acceptance of a socialistic approach to the solution of the problems and needs of man. The concept of service and ultimate efficiency is the essence of the competitive system. An analysis of anti-trust legislation lends support to the contention that controlled competition tends in the long-run to lead to a more efficient standard of service than either uncontrolled competition and/or socialism. Clark states:

We want gratification from goods and services public or private and including the gratification that goes with progress; and these are produced by an organization shaped primarily by the pursuit of monetary gain. It follows that before we can accept the system as serviceable, it must satisfy two prerequisites . . . serviceability . . . monetary gains
must be self-limiting in some acceptable fashion. 9

The remainder of this chapter will be concerned with (1) the problem, (2) sub-problems, (3) significance of the problems, (4) hypotheses, (5) limitations of the study, (6) definitions, and (7) the summary.

The Problem

The principal reason for the existence of complex organizations within contemporary society is service. Increases in the number and complexity of organizations in both contemporary and future periods of time often decree a decrease in the level of service provided. Problems relating to technology, attitudes toward profit, training incapacities, and the establishment of evaluative standards and vested interests may also decrease the quantity or quality of service provided. To assist in compensating for these problems and to assist in providing optimal service, it is important to place service-oriented individuals in certain positions within the organizational structure. These are positions in which the employees have contact with the customer.

(servicee) or perform supportive functions for those organizational segments serving the customer. The individual who is placed in this type of position should be one who not only performs "acts or service" but also has the "attitude of service." They are individuals who have developed so that their basic attitude, their method of relating to life and to others, is through the performance of service to other individuals.

THE MAJOR PROBLEM OF THIS RESEARCH INVOLVES THE DISCOVERY OF THE SERVICE-ORIENTED (SO) AND NON-SERVICE-ORIENTED INDIVIDUAL (NSO), AND THE ANALYSIS OF THEIR PERSONALITIES SO AS TO DETERMINE IF SIGNIFICANT DIFFERENCES EXIST WHICH WOULD PERMIT THE CONSTRUCTION OF THEORETICAL PERSONALITY MODELS FOR (1) THE SERVICE-ORIENTED EMPLOYEE, AND (2) THE NON-SERVICE-ORIENTED EMPLOYEE--WHICH IN TURN WOULD PERMIT THE IDENTIFICATION OF SUCH INDIVIDUALS FOR THE PURPOSE OF PERSONNEL SELECTION.

Sub-Problems

There are three sub-problems with which this research is concerned. The first of the problems is in the area of attitudes toward others. It may be
assumed that employees who are selected by their peers as being oriented toward serving others would have a positive attitude toward others and, conversely, that employees selected by their peers as not being oriented toward serving others would not have as positive an attitude toward others. The problem then becomes one of determining if a significant difference exists between the service-oriented and non-service-oriented employees with regard to attitude toward others.

The second sub-problem is to determine if employees selected by their peers as service-oriented are indeed significantly more positive in their attitude toward service than employees selected by their peers as non-service-oriented.

The third sub-problem is of an exploratory nature. Certain questions relating to the assessment of attitude toward service may be segmented into sub-problem categories. Responses in these sub-problem categories were analyzed in order to determine if research concerning each sub-problem was warranted. These categories are concerned with
the following problems:

1. Is there a significant difference between employees selected as service-oriented and those selected as non-service-oriented with respect to their attitude concerning personal responsibility for service?

2. Is there a significant difference between employees selected as service-oriented and those selected as non-service-oriented with respect to their attitude concerning the importance of conformance to established procedure and policy?

3. Is there a significant difference between employees selected as service-oriented and those selected as non-service-oriented with respect to their attitudes concerning challenging management on behalf of the customer?

4. Is there a significant difference between employees selected as service-oriented and those selected as non-service-oriented with respect to their willingness to defend the customer's interest over their own interest?

5. Is there a significant difference between employees selected as service-oriented and those selected as non-service-oriented with respect to their identification with the organization as opposed to the customer in
a forced choice situation?

6. Is there a significant difference between employees selected as service-oriented and those selected as non-service-oriented with respect to their attitudes toward the importance of non-customer contact positions in serving the customer?

The above six problems may be viewed as attitudes and activities which may be incongruent with the concept of service, i.e., commitment to the welfare of the customer. While in total they may indicate an attitude toward service, if a significant different does exist between the attitudes of the service-oriented and non-service-oriented employee each may become a research problem and provide insight into important areas for additional research.

**Significance of the Problem**

Increases in the population, and, thus, in the number and size of complex organizations, stimulate an increasing need for service-oriented employees in selected positions within the organization. While other types of individuals are also required, there is a definite need for individuals who are service-oriented, and who are personally concerned about the welfare and optimum servicing
of the servicee. The locating of this type of individual is important from the perspective of satisfying the needs of the customer and from the perspective of the survival and growth of the organization.

The significance of the sub-problem concerned with the difference of attitude toward others of the service-oriented and non-service-oriented employee may be found in the support it grants to using a personality model or instrument in the selection of employee who are service-oriented and must be placed in positions which require customer contact. From a theoretical perspective, it is doubtful that an individual who is oriented toward serving others would have a negative attitude toward others. Thus, if a significant difference exists in the attitude toward others of the service-oriented and non-service-oriented employee, it would tend to validate the peer selections of the service and non-service-oriented employee.

The significance of the second major sub-problem, that of determining if a significant difference exists between the attitude toward service of employees selected as service-oriented and non-service-oriented may also be found in the support it gives to the peer ratings. In effect, it may indicate that employees defined as
service-oriented are from their own attitudinal perspective oriented in a positive manner toward the concept of service.

The difference in attitude is also significant in its effect upon the inter-relationship between customer and employee and in the effect which the employee's attitude has upon his behavior. The effect of attitudes is discussed in Chapter II, "The Review of the Literature."

The significance of the exploratory problems is found in the importance of, and the desire to, perform additional research in service-related problem areas. The findings should lead to conclusions and recommendations which will assist in designing future research. If there is a significant difference between the attitude of the service-oriented and non-service-oriented employee toward the six above mentioned sub-problem areas, there is a strong basis for conducting additional research relating to the impact of these attitudes on specific job related behaviors, both in customer contact and data processing positions.

**Hypotheses**

Hypotheses relating to personality factors.—Service-oriented employees have certain personality factors which are significantly different from non-service-oriented employees.
Sub-hypotheses (specific personality factors):

1. Cyclothymia versus Schizothymia
   a. Service-oriented employees are more warm and sociable (cyclothymia) than non-service-oriented employees.
   b. Non-service-oriented employees are more aloof and stiff (schizothymia) than service-oriented employees.

2. Intelligence
   a. There is no significant difference between the intelligence of the service-oriented and non-service-oriented employees.

3. Emotional Stability versus Emotional Instability
   a. Service-oriented employees are more emotionally stable than non-service-oriented employees.
   b. Non-service-oriented employees are more emotionally unstable than are service-oriented employees.

4. Submissive versus Dominance
   a. Service-oriented employees are more
17

submissive than are non-service-oriented employees.

b. Non-service-oriented employees are more dominating than are service-oriented employees.

5. Surgency versus Desurgency

a. Service-oriented employees are more surgent (enthusiastic, happy-go-lucky) than are non-service-oriented employees.

b. Non-service-oriented employees are more desurgent (glum, sober, serious) than are non-service-oriented employees.

6. Expedient versus Conscientiousness

a. Service-oriented employees are more lax in their internal standards than are non-service-oriented employees.

b. Non-service-oriented employees have more character or super-ego strength than do service-oriented employees.

7. Threctia versus Parmia

a. Service-oriented employees are more parmia (adventurous, thick-skinned) than non-service-oriented employees.
b. Non-service-oriented employees are more threctia (shy, timid) than service-oriented employees.

8. Harria versus Premisa
   a. Service-oriented employees are more premia (sensitive, effeminate) than non-service-oriented employees.
   b. Non-service-oriented employees are more harria (tough, realistic) than service-oriented employees.

9. Alaxia versus Protension
   a. Service-oriented employees are more trusting (alaxia) than are non-service-oriented employees.
   b. Non-service-oriented employees are more suspecting and jealous (portension) than service-oriented employees.

10. Praxernia versus Autia
    a. Service-oriented employees and non-service-oriented employees are not significantly different in autia (bohemian, introverted, absent minded).
b. Service-oriented employees and non-service-oriented employees are not significantly different in praxernia (practical, concerned with facts).

11. Navieťe' versus Shrewdness
   a. Service-oriented employees are more naive (simple, unpretentious) than non-service-oriented employees.
   b. Non-service-oriented employees are more shrewd than service-oriented employees.

12. Placid versus Apprehensive
   a. Service-oriented and non-service-oriented employees are not significantly different in confidence and feelings of adequacy (placid).
   b. Service-oriented and non-service-oriented employees are not significantly different in guilt proneness (apprehensive).

13. Conservatism versus Radicalism
   a. Service-oriented and non-service-oriented employees are not significantly different in conservatism.
b. Service-oriented and non-service-oriented employees are not significantly different in radicalism.

14. Group-tied versus Self-Sufficient
   a. Service-oriented employees are more group dependent than non-service-oriented employees.
   b. Non-service-oriented employees are more self-sufficient than service-oriented employees.

15. Casual versus Controlled
   a. Service-oriented employees are significantly higher in self-sentiment formation (controlled, exacting will power) than employees selected as non-service-oriented.
   b. Non-service-oriented employees are significantly higher in poor self-sentiment formation (uncontrolled, lax) than service-oriented employees.

16. Low Ergic Tension versus High Ergic Tension
   a. Service-oriented employees are more relaxed (low ergic tension) than are
non-service-oriented employees.

b. Non-service-oriented employees are more tense and excitable (high ergic tension) than are service-oriented employees.

**Hypothesis relating to attitude toward others.**

Employees selected as being SO have a more positive attitude (more accepting) towards others than employees selected as NSO.

**Statements 1-16**

**Hypothesis relating to attitude toward service.**

Employees selected as being SO have a more positive attitude towards service than employees selected as NSO.

**Statements 17-37**

**Hypotheses relating to exploratory problems associated with service.**

Employees selected as being SO will have greater responsibility for service than employees selected as NSO.

**Statements 32, 35, 37**

Employees selected as SO will be less inclined to conform to the established procedures and policies recommended by the firm than will employees selected as NSO.

**Statements 30, 33, 36**
Employees selected as SO will be more inclined to challenge the management on behalf of the customer than will employees selected as NSO.

Statements 29, 31, 34

Employees selected as SO will be more inclined to defend the customer's interest over their own than will the employee selected as NSO.

Statements 18, 21

Employees selected as SO will be more inclined to identify with the customer than the organization when in conflict situations than is the employee selected as NSO.

Statements 22, 27

Employees selected as SO will be more inclined to believe that non-customer contact positions are important in relation to customer contact positions than will employees selected as NSO.

Statements 17, 20, 24

Limitations of the Study

There are three principle areas associated with the study in which relatively distinct limitations may be found. These are the relationship between the subject and
the instrument, the size of the sample, and the length of time in which the study was enacted.

Although Cattrell and Eber endeavored to make the instrument as understandable as possible, the ability of certain subjects to understand what the instrument is attempting to communicate is limited. For example, the subject may not have the ability, nor the opportunity, to experience or to know himself adequately within the parameters of the situation for which he is expected to respond. Furthermore, subjects may also have a negative or positive mental set so that their responses are biased. Within the corporate structure, the subject may perceive the testing as just another trick by management or, conversely, as an opportunity to gain the favor of management. Subjects may also make different interpretations of certain key words or phrases. They may also falsify their answers because of a lack of desire to express, or their inability to express, the truth about themselves.

The greatest limitation associated with the sample size is the fact that the sample size, without consideration of cost, should be larger than the present size and should also be selected from a more widely dispersed population.
The third limitation is found in the inability of the researcher to sample the subject's personality before his or her emersion into the group so as to determine what effect the group had upon the individual's personality and attitudes. A longitudinal study would permit a better understanding of the impact of the group and thus a better understanding of the value of the instrument as a personnel selection device.

The final limitation may be found in the bias which may exist on the part of the employee. The organization has recently put great emphasis upon service and has communicated this emphasis repeatedly to the employee. Thus, the employee has had reason to give an abnormally large amount of time and energy to thinking about service and its related aspects which may have resulted in certain predispositions to respond.

Definitions

Attitude.--A learned and more or less generalized readiness or predisposition to respond, perceive, think and feel in a rather persistent and characteristic manner, usually positively or negatively, toward an object, be
Service.—The performance of acts of labor for the benefit of others, even though a personal cost is involved, and motivated in part from a positive attitudinal orientation toward others.

Complex organizations.—A relatively permanent and complicated interaction system having discernible detail in both horizontal and vertical differentiation in the social structure being described and with a large number of positions and roles.¹¹

Construct.—A way in which some things are constructed as being alike and yet different from others.¹²

Group.—A relatively permanent and uncomplicated interaction system.¹³


¹¹J. Eugene Haas, Role Conception and Group Consensus, Research Monograph Number 117 (Columbus, Ohio: The Ohio State University, Bureau of Business Research, 1964).


¹³Haas, op. cit.
Serviceable.--Willing to be of service; helpful; obliging; kind. Prepared for rendering service; capable of, or fit for, the performance of duties.\textsuperscript{14}

Trait.--Certain, persistent characteristics of a person's actions or ideas that are described by some distinguishing adjective.\textsuperscript{15}

Summary

Chapter I gives the reader an introduction, a statement of the problem and sub-problems, the significance of the problem, hypotheses, limitations of the study, and definitions. Chapter II reviews the literature. Chapter III contains data relating to methodology. Chapter IV contains the analysis of data and the presentation of findings. Chapter V is a general discussion of the findings, conclusions, and recommendations for future research.

\textsuperscript{14}\textit{Ibid.}
\textsuperscript{15}\textit{Young, op. cit., p. 107.}
CHAPTER II

REVIEW OF THE LITERATURE

Service, A Theoretical Perspective

As discussed earlier, the concept of service is of prime importance within the organization. Service has, however, been principally conceived of in terms of an overt act, normally one of assistance, and is often specified in terms of the job description, role expectation, and/or the particular situation. Webster's definition supports this contention. He states that service is the performance of labor for the benefit of another, or at another's command; attendance of an inferior, hired helper, slave, etc. Performance of official duties for a sovereign or state; official formulation; as, public or secret service. Supply of needs; use; also, formerly utility; as, for the service of customers; of distinct service. Accommodations to a dealer or consumer to promote the sale and use of a product, such as, the dealer window displays, demonstrations, the making of repairs, etc.¹

Webster defines the concept of "serviceable" as "willing to be of service; helpful; obliging; kind. Prepared for rendering service; capable of, or fit for, the performance of duties." \(^2\)

It should be noted that there is a distinct difference between the two definitions. The definition concerning service is phrased principally in terms of acts or overt manifestations without a consideration of what motivates the act. It would seem that the first definition is congruent with the expectations of a particular role, or with the formalized expectations of a job description, or, in certain instances, with the particular situation. It seems that, historically, this concept has been used to the maximum. Individuals and groups within the organizations are expected to perform acts of service more efficiently, thereby giving the customer better and better service. Sales are made more rapidly, billing is made more efficiently, marketing research determines what the customer "really" desires, and scheduling of students and other forms of assistance are speeded. This performing of an increasing number of acts and performing them in a more efficient

\(^2\)Ibid.
manner is most often the approach accepted by business in attempting to improve service. A case in point is found in a booklet entitled "Customer Returns and Complaints by the National Retail Dry Goods Association." The Association states that the problem of poor service is found in many areas of "activity," but poor service, in particular, is caused by a "breakdown in the store system, defects in store system, poor selling, discourtesy, imperfect performance of supporting organizations."\(^3\)

In the second definition, that of serviceability, Webster approaches what may be the essence of service, that of "willingness," and, thus, the problem of attitude. It is when the individual's attitude is one of service or "willingness" that he performs a service or service at the more basic or fundamental level, as opposed to merely going through the motions, or acts, of service.

The researcher is stating, then, that there are two levels of service. At the superficial level, the individual is performing the act of service because of the requirements of the position, without an attitude of service.

\(^3\)Customer Returns and Complaints, Store Management Group, National Dry Goods Association (New York: 100 West 31st Street).
The behavior of the individual is thus externally stimulated by the role which the employee is expected to perform. At the more basic level, the individual performs the service required by the role, but also performs the service because service is his attitudinal orientation towards life and his fellow-man. The employee has a positive attitude towards service and his fellow-man. It is this positive attitude, this basic attitudinal frame of reference, which is so important in providing the proper basis for service and which has been discussed by so many authors. Auguste Comte in *The Positive Philosophy of Auguste Comte* discussed this concept in relation to his concept of "*vivre pour autrui.*" Clark Moustakas writes of this concept in relation to man reaching out to fulfill his own capacities through communication with and assistance to others. Karen Horney's concept of "moving toward people" may also

---


be related to the concept of service. The concept of love as discussed by Erich Fromm may also be related as may be Andras Angyal's concepts stressing the importance of recognition and acceptance of the otherness or individuality of other individuals.

This attitudinal orientation may be consistently conceptualized in the following definition of love:

dispositional interest . . . of an exclusive kind, having a person for its object, and manifesting itself in the following emotional states; (1) pleasure in the presence of a person or other communication with him . . . (3) pleasure in his welfare; (4) pain occasioned by injury to him.

Note that while the definition is stated in terms of an individual, it may be perceived as applying to an individual's attitude towards all men. It is in this sense that the researcher desires to relate the content to the discussion.

---


Empirical Research Relating to the Effect of Attitude

The importance of attitude in relation to individuals' behavior has been briefly supported by the above theoretical writings. The effect of attitude is also supported by empirical research. An example may be found in an article by Fey entitled "Acceptance by Others and Its Relation to Acceptance of Self and Others--A Revaluation" which indicated that

Individuals with a high acceptance of others scores tend to feel accepted by others . . . and tend toward being accepted by them . . .

Individuals with high AS-AO (those with high self acceptance and low acceptance of others) tend to accept themselves . . ., to reject others . . ., to feel accepted by others . . ., but actually to be rejected by others . . .

The importance of Fey's research in relationship to this research is located in the area of service and customer contact. The service-oriented individual, to be of the utmost service, must have a positive attitude toward others so as to be accepted by those he or she communicates with and serves.

Watson and Hartman in researching rigidity in relation to basic attitudinal frame of reference stressed the importance of attitudes in relation to the remembering of data. They found that "material which supported the subject's attitudinal frame of reference was retained better than material which opposed it."¹⁰

In researching the effect of attitudes on perception and reaction, Edwards studies indicated that when subjects feel positively toward a concept they will perceive the speaker and the content of his speech in a positive manner. Individuals perceiving the topic negatively will perceive that the speaker is negative in his remarks regarding the subject. This finding is valid even though the speaker made, and the speech contained, an equally number of positive and negative comments about the subject. Thus the subjects perceived an attitude and heard comments which were consistent with their own attitudinal frame of reference.¹¹


Edwards supported the above conclusion in another article entitled "Rationalization in Recognition as a Result of Political Frame of Reference" by stating that it is "almost impossible to expect objectivity and accuracy in perception, learning, remembering, thinking, et cetera, when ego involved frames of reference are stimulated."\(^{12}\)

In studying the prediction of social events by students and specialists and the effect of value, Cantril found that:

When an individual is forced to make a judgment in any way related to an internalized social value, his ego is involved and becomes a determining factor in the judgment. No single group of specialists, as well as no single individual, was found to be completely free of ego involvements ... a circumstance which confirms McGregor's findings that specialists do not differ significantly from students in their predictions.\(^{13}\)

Postman, Bruner and McGinnies researched the effect of values on recognition time and stated that:

Value orientation not only contributes to the selection and accentuations of certain percepts in preference to others, it also erects barriers


against percepts and hypothesis incongruent with or threatening to the individual's values. We suggest that a defense mechanism similar to repression operates in perceptual behavior.

Value orientation makes for perceptual sensitization to valued stimuli; leads to perceptual defense against inimical stimuli and gives rise to value resonance which keeps the persons responding in terms of objects valuable to him even when such objects are absent from his immediate environment.\(^{14}\)

The research of Haigh and Fiske supports the above conclusions.\(^{15}\)

Within the areas of learning and forgetting of controversial material, Levine and Murphy found that subjects learned a greater amount of material when the presented was congruent with their values than did subjects whose values were incongruent with the material, and they forgot less after an extended period of time than did subjects whose values were incongruent with the material presented.\(^{16}\)


Summary

The importance of the attitudinal frame of reference of the individual and its relationship to behavior has been established from both a theoretical and empirical perspective. The basic attitude towards a concept, object, individual, group, effects the relationship between the individual and his environment. One attitude towards others effects how others are perceived, but it also effects the perceptual process of the other individual. Thus, the importance of having a positive attitude towards others is found in the employees perception and behavior towards the customer and in the resulting customer's perception and behavior towards the employee. Therefore, in customer contact positions, a positive attitude towards others and towards service is of significant concern.

The effect of the attitudinal frame of reference on the rate of perception of data, the learning and remembering of data, the perception of and the conclusions drawn from written and verbal statements, the judgment and prediction of events, and the repression of material inconsistent with attitudes all attest to the importance of attitude. Of particular importance to this research is concept of a positive attitude towards service and others. While the
significance of the above can be applied to employees functioning in customer contact positions, the findings are also of great importance to employees who specialize in the processing of data required to support organizational groups having direct customer contact.

Employees who have a negative attitude towards service and others would, according to the previous research, be less likely to perceive rapidly problems associated with service, less likely to learn and remember data which are required to serve the customer in the most adequate fashion, less likely to judge and predict events associated with customers in a positive manner, and less likely to perceive verbal and written statements from customers in a positive manner. Employees with a negative attitude would, conversely, be more likely to behave in a manner which is congruent with their attitude. However, this research must first determine if a significant difference exists between the attitude towards others and the attitude towards service of employees selected as service-oriented and employees selected as non-service-oriented.
CHAPTER III

METHODOLOGY

The Instruments

Introduction

The 16 PF Test.—The instrument chosen for the research is "The 16 PF Test, Form A" which has been prepared by Raymond B. Cattell and Herbert W. Eber. The instrument presents the researcher with sixteen bipolar descriptions of source traits, which are as follows: cyclothymia versus schizothymia, general intelligence versus mental defect, emotional stability versus dissatisfied emotionality (unstable), dominance or ascendance versus submission, surgency versus desurgency, character or super-ego strength versus a lack of rigid internal standards, parmia (adventurous, thick-skinned) versus threctia (shy-timid), premsia (sensitive, effeminate) versus harria (tough, realistic), protension (suspecting, jealous) versus relaxed security (accepting, adaptable), autia (bohemian, introverted, absent-minded) versus praxernai (practical, concerned with facts),
shrewdness (sophisticated, polished) versus naivété (simple, unpretentious), guilt proneness (timid, insecure) versus confident adequacy (confident, self-secure), radicalism versus conservatism of temperament, self-sufficiency versus group dependency, high self-sentiment formation (controlled, exacting will power) versus poor self-sentiment formation (uncontrolled, lax), high ergic tension (tense, excitable) versus low ergic tension (phlegmatic, composed), and four second order factors, low anxiety versus high anxiety, introversion versus extroversion, tenderminded emotionality versus alert poise, and subduedness versus independence.

Reliability

The authors, in analyzing the consistency coefficients, used the split-half method, corrected to full length, on a sample of 450 adult males with Forms A and B, 374 items. They found correlations of:

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>0.90</td>
<td>F</td>
<td>0.84</td>
<td>L</td>
</tr>
<tr>
<td>B</td>
<td>0.86</td>
<td>G</td>
<td>0.85</td>
<td>M</td>
</tr>
<tr>
<td>C</td>
<td>0.93</td>
<td>H</td>
<td>0.83</td>
<td>N</td>
</tr>
<tr>
<td>E</td>
<td>0.91</td>
<td>I</td>
<td>0.76</td>
<td>O</td>
</tr>
<tr>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
<td>Q4</td>
<td></td>
</tr>
</tbody>
</table>

\[^1\] Raymond B. Cattell and Herbert W. Eber, Sixteen Personality Factor Questionnaire, The 16 PF Young Adults and Adults, Manuals for Forms A and B (Champaign, Illinois: Institute for Personality and Ability Testing, 1957.)
The authors state that it has been "shown by separately calculating empirically for Form A that the estimate is very close on all factors."

Dependability reliabilities, short-term, test-retest (six days) correlations were performed on 146 adults, age 25-45 years. The following coefficients were recorded:\(^2\)

**FORMS A + B**

A = .89  F = .90  L = .87  Q1 = .83  
B = ----*  G = .88  M = .82  Q2 = .85  
C = .87  H = .93  N = .76  Q3 = .78  
E = .88  I = .89  O = .89  Q4 = .91  

**FORM A**

A = .81  F = .79  L = .75  Q1 = .73  
B = ----*  G = .81  M = .70  Q2 = .73  
C = .78  H = .83  N = .61  Q3 = .62  
E = .80  I = .77  O = .79  Q4 = .81  

**FORM B**

A = .75  F = .81  L = .77  Q1 = .70  
B = ----*  G = .77  M = .70  Q2 = .75  
C = .74  H = .89  N = .60  Q3 = .62  
E = .80  I = .79  O = .81  Q4 = .87  

*The intelligence test cannot meaningfully be repeated after a short internal. N = 146 for the other fifteen factors.*

---

The authors also performed a test-retest study on 132 students to determine the stability of the traits over a two-month period and found that the following coefficients existed:

\[ \text{FORMS A + B -- } N = 132 \]

\[
\begin{align*}
A &= .85 & F &= .78 & L &= .76 & Q_1 &= .83 \\
B &= .63 & G &= .84 & M &= .71 & Q_2 &= .81 \\
C &= .75 & H &= .88 & N &= .74 & Q_3 &= .70 \\
E &= .85 & I &= .87 & O &= .77 & Q_4 &= .78
\end{align*}
\]

It was also noted that, if certain circumstances prevail, certain traits, surgency, imaginative, self-discipline and drive tension, are able to change over the period of a few months.

Validity

Cattell and Eber calculated the validities of the 16 factor scales by the following two methods.

(1) From the known factor loadings of the times on the factors, in the original research, according to the formula for combining items . . . This gives a mean validity for the A and B forms of the test as follows:

\[
\begin{align*}
A &= 0.88 & F &= 0.91 & L &= 0.89 & Q_1 &= 0.74 \\
B &= 0.80 & G &= 0.85 & M &= 0.74 & Q_2 &= 0.81 \\
C &= 0.76 & H &= 0.96 & N &= 0.73 & Q_3 &= 0.92 \\
E &= 0.82 & I &= 0.84 & O &= 0.91 & Q_4 &= 0.96
\end{align*}
\]

\[\text{Ibid.}\]

\[\text{Cattell and Eber, Sixteen . . . Forms A and B, op. cit.}\]
(2) From the split-half reliability of the factor, assuming that the items have not 'specifics' in common but only the common factor, when validity equals reliability. This yields validities of:

<table>
<thead>
<tr>
<th>Item</th>
<th>Validity</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>0.95</td>
</tr>
<tr>
<td>B</td>
<td>0.93</td>
</tr>
<tr>
<td>C</td>
<td>0.96</td>
</tr>
<tr>
<td>E</td>
<td>0.95</td>
</tr>
<tr>
<td>F</td>
<td>0.92</td>
</tr>
<tr>
<td>G</td>
<td>0.92</td>
</tr>
<tr>
<td>H</td>
<td>0.91</td>
</tr>
<tr>
<td>I</td>
<td>0.87</td>
</tr>
<tr>
<td>L</td>
<td>0.88</td>
</tr>
<tr>
<td>M</td>
<td>0.94</td>
</tr>
<tr>
<td>N</td>
<td>0.89</td>
</tr>
<tr>
<td>O</td>
<td>0.92</td>
</tr>
<tr>
<td>Q1</td>
<td>0.84</td>
</tr>
<tr>
<td>Q2</td>
<td>0.89</td>
</tr>
<tr>
<td>Q3</td>
<td>0.87</td>
</tr>
<tr>
<td>Q4</td>
<td>0.94</td>
</tr>
</tbody>
</table>

Instrument Construction and Conformity with Acceptable Test Construction Procedure

The authors, in constructing the instrument, also attempted to conform with certain acceptable and proven practices. The following are the major guidelines in the development of the instrument.

1. A very large number of items (in this case 1552) was made up by at least six people (to avoid person-specific factors sometimes demonstrable in tests), in the light of all that is known (in questionnaire, rating and 16 P.F. criterion prediction data) about the number and nature of the primary personality factors.

2. These were submitted to persons of different background, and to word count surveys, to eliminate uncommon words (Flesch word count), items that are too long, ambiguous or tied to matters too specific in place or time.

3. Two population samples were taken, one toward the upper and one the lower half of the range for which the test was intended and correlation matrices were calculated among the items separately for these.

_{Ibid.}_
4. Items with extreme cuts (under 10% in one end category of three), in either sample, were eliminated before the calculation of correlation matrices. The phi co-efficient or the tetrachoric is used. Phi divided by the maximum possible phi for the given extremity of cut has been used by us before and, like the tetrachoric, has the advantage of getting rid of 'difficulty factors,' but since it is prone to yield non Gramian matrices, and since the alternative tetrachoric involves undue assumptions, the present study used phi.

5. The two matrices were separately factored and rotated blindly to simple structure. It is very important that the latter be truly and thoroughly done.

6. Items were picked for each factor having the highest loadings on the required factor and, if possible suppressing (i.e., cancelling) loadings on the others. At this point only those items were carried further which show emphatic consistency in their factor patterns in the two studies. For example, no matter how significant the positive loading on one study may be, the item would be rejected if it has insignificant or negative loading on the other.

7. To get suitable means, variance and grading on each factor scale, the cuts (alternative response frequencies) must be examined. It is possible to predict both mean and variance of the resultant scale, by certain assumptions from the cuts on the included items. The choice of items by cuts should accordingly give a mean that is central on the scale range and a maximum scatter (near-even cuts to an extent compatible with usefulness for extreme samples) as well as equal means and variances for the equivalent A and B forms.

8. An even balance of 'Yes' and 'No' answers must be chosen, from the surviving items, to score positively on each factor, in order to abolish position or response set effects.
9. The items should be symmetrically divided between A and B forms as to factor loading, mean, variance, yes and no answer, etc., as determined above. (Partly to ensure the kind of equivalence cited in (7) above.) Then they need to be arranged in that form of cyclical order, avoiding several items in sequence for the same factor, most convenient for the scoring key.

10. The scales must be standardized with the usual attention to stratified sampling, etc.  

Related Empirical Research

There are various studies which tend to support the contentions made by the authors, Cattell and Eber, concerning their instrument, "The 16 PF Test." For example, Gocka's research of 84 hospital patients is a case in point. Analyzing patients who had a former diagnosis of schizophrenia, but who were now on the point of being discharged, he found that there were four (4) rotated factors plus a general, second order factor which existed between the MMPI and "The 16 PF Test." LaForge studied the correspondence between the MMPI and "The 16 PF Test".

---


by utilizing a sample of 178 students enrolled in an introductory psychology course. He found that there is a high degree of correspondence between the variables manifesting anxiety on either test, \(O, \Omega^4, L\) and \(C\) from the 16 PF. Less general correspondence between other scales are also clear. However, the principal result is that a common factor of expressed anxiety or general maladjustment is extremely prominent in both tests.\(^8\)

Mitchell analyzed the California Psychological Inventory and Cattell and Eber's 16 PF using a sample of 291 college sophomores, and found that the results provided evidence for the validity of both instruments.\(^9\)

Holland sampled 783 boys and 394 girls who were high school seniors, using the Holland Vocational Preference Inventory and the 16 PF Test, in order to validate, in part the H.V.P.I. He stated:

The inter-correlations of the VPI and the 16 PF generally provide positive evidence for the construct validity of the VPI and its rationale. Forty-seven percent and 28 percent of the correlations between these instruments are significant for large samples of high school senior boys and girls, respectively; moreover, the 16 Personality Factors usually support

---


the scale definitions of the VPI and their assumed correlates.\textsuperscript{10}

Using the instrument in order to subordinate or invalidate the instrument for clinical use, Karson researched three groups of U.S. Air Force enlisted men, one group of men diagnosed as anxiety-neurotic by a board of certified psychiatrists, and one group referred from other departments for psychosomatic and general medical problems. He found, using a two tailed test, that:

With regard to the comparisons between 'normals' and anxiety neurotics, twelve factors on the 16 PF Test differentiated the two groups. Four of the five, major factor loading the second-order questionnaire factor of Anxiety versus Dynamic Integration reached the .01 level of confidence, namely, C\ldots, O\ldots, Q4\ldots, and L\ldots. Factor Q3\ldots, was significant at the .05 level. The findings are in direct agreement with the concept validity of these particular factors and strongly support the interpretation given them in the test manual.\textsuperscript{11}

Karson also used the instrument to validate or invalidate the clinical judgments of experienced psychiatric social workers. Studying an experimental group of 129 Caucasian mothers, whose children had been referred to the


clinic and recommended for treatment, and a control group, Karson found that Factors A, F, O, Q3, and Q4 were significantly correlated with judgments of the experienced psychiatric social workers. Factor A was significant at the .05 level and the other four factors were significant at the .01 level.\textsuperscript{12}

Using the instrument as a basis, Bendig constructed a questionnaire of 20 radicalism (Q1) items from Forms A and B and administered it to 192 students. He found that while this factor Q1, appears to be reliable enough to be used as a marker variable in personality research, but its usefulness in individual diagnosis whenever the 16 PF is administered to college S's is questionable.\textsuperscript{13}

DePalma utilized the 16 PF to study 69 alcoholic male subjects, between the ages of 30 and 55, for the personality variables associated with alcoholism and found the instrument acceptable.\textsuperscript{14}


Karson used the 16 PF for research relating to the primary factors in 96 physically and mentally healthy air-men and found that there were six factors which differentiated and could be used as a basis in better understanding what constitutes mental health in American youth.\(^{15}\)

Karson studied 71 U.S. Air Force officers on flying status who had been referred to the School of Aviation Medicine for medical and psychological evaluations in an attempt to analyze the intelligence scale, Factor B. Using the Wechsler Adult Intelligence scale as a basis, Karson stated that:

Evidently Factor B is not a valid measure of intelligence in an intellectually superior sample. He tended to accept Factor B as a valid indicator for subjects whose intelligence were closer to the mean.\(^{16}\)

Cattell, in studying the personality of homosexuals, found that the instrument was acceptable in initial diagnosis.\(^{17}\) Cattell also found that the instrument was


adequate for the determination of personality factors associated with different occupations. He discovered profiles for eleven different occupations.\textsuperscript{18}

\textbf{Peer Rating Instrument}

A peer rating scale was designed which would permit each member of a group to evaluate every individual within the group on a scale from number one (extremely unlike the statement) to number nine (extremely like the statement) according to the following statement.

This individual frequently deviates from the procedures and policies established by the company in order to provide the customer with the best possible assistance.

Each member of the group was instructed to rate all members of the group using a forced choice technique. One-fourth of the choices were required to be extremely unlike the above statement, one-half of the choices were required to be somewhat like the above statement and, one-fourth of the choices were required to be extremely like the above statement.

The above statement was designed with the objective of obtaining the individuals in the group who were most, or least, service-oriented as defined by peer ratings. The researcher was concerned not only with identifying employees who would assist the customer but with identifying the employee in each group who would provide the customer with the best possible service in spite of the cost which may be incurred due to deviation from the established procedures and policies of the organization. Employees at the opposite end of the continuum, least like the above statement as rated by their peers, were considered to be the least service-oriented.

**Attitude Questionnaire**

**Attitudes Toward Others**

The construction of the instrument concerned with attitudes toward others was initiated by an article by Elizabeth Sheerer entitled "An Analysis of the Relationship between Acceptance of and Respect for Self and Acceptance of and Respect for others in Ten Counseling Cases."^{19}

Using the clients' statements, E. L. Phillips constructed two related instruments, attitude towards self and attitude towards others according to acceptable procedures. He obtained a co-efficient of reliability of .82 on a five-day test—retest reliability study.\(^{20}\)

The instrument was also used by Charles J. McIntyre. McIntyre found that both instruments in combination had a co-efficient of reliability of .65.\(^{21}\)

**Attitudes Toward Service**

The basis for the design of the segment of the attitude questionnaire concerned with service may be found in the research by Thomas, Polansky and Kounin on "The Expected Behavior of a Potentially Helpful Person." They found that persons highly motivated to help the client are expected by the client to do the following and to do so without signs of ambivalence: (a) assign importance to the problem the client has thus bringing it into the area of communication; (b) show willingness to maintain communication;


(c) show willingness to broaden the image of communications made accessible to both the client and the helper.22

Generally, the potentially helpful person was one who was committed and indicated his commitment to the customer. Using this concept as a basis, statements were designed which indicated commitment to the customer. Other statements were designed which were directly opposed to commitment to the customer. Thus, from a theoretical perspective, employees who were service-oriented, committed to the customer, would indicate agreement with the statements indicating commitment to the customer and oppose or disagree with statements which indicated a lack of commitment to the customer. The following scale was used to obtain the employee's response: very strongly disagree (VSD), strongly disagree (SD), disagree (D), undecided (U), agree (A), strongly agree (SA), very strongly agree (VSA).

The following steps were followed in constructing the segment of the attitude questionnaire concerned with service.

1. Statements were designed which indicated

commitment to or non-commitment to the customer.

2. The statements were then reviewed by a panel of eighteen judges in order to determine if the statements did indicate commitment to, or did not indicate commitment to, the customer. Statements were eliminated or changed as required.

3. The questionnaire was then administered to a group of 47 business students for pre-test purposes and appropriate revisions made.

4. The final questionnaire was then reviewed by a panel of eight graduate students majoring in various disciplines.

Selection of the Sample

Subjects were selected from three divisions of a large national insurance company located in the midwestern United States. Employees selected for the sample were involved in varied activities involving receiving customer data, the processing of customer data, and contacting and communicating with customers. All of the subjects, however, did not communicate with customers. With the exception of
claims adjusters and insurance agents, the functions performed were congruent with those functions performed by other operative members of the organization.

Groups were selected on the basis of the interaction permitted by the activities performed. Only those groups were accepted which, due to the nature of their members' function, permitted meaningful and relatively extensive interaction. The sample contained 24 groups. The smallest group contained seven members and the largest group contained 16 members.

Administration of the Instruments

A list of the names of the employees in each group was obtained from the supervisor in charge of the division. A packet was prepared for each member of each group which consisted of (1) a letter of introduction and directions, (2) an envelope marked number one, and (3) an envelope marked number two. (Refer to the Appendix for a copy of the letter and envelopes.)

Envelope number one was marked in the upper right-hand corner with the number of the envelope, marked in the lower left-hand corner with the number of the group, and bore the return address of the Director of Research. Envelope number one contained the peer rating instrument.
(A sample of envelope number one may be found in the Appendix.)

Envelope number two was marked in the upper right-hand corner with the number of the envelope, marked in the lower left-hand corner with the number of the group, and bore the return address of the Director of Research. Envelope number two contained Cattrel's Personality Instrument (16 PF), an IBM answer sheet, and the questionnaire concerned with attitudes toward service and others.

The letter of introduction (8½ x 11 paper) was folded with two horizontal folds so that it would "fit" on top of a 3 x 11 inch envelope. The letter was then placed with envelope number one and two. Thus, the packet contained, from top to bottom, the folded letter of introduction, the envelope marked number one (with contents), and the envelope marked number two (with contents). The three pieces of data were then secured with a rubber band. A packet was prepared for each individual.

The packets were then sorted into groups. The number in each group of packets equalling the number of employees in the group for which they were prepared.

The packets were then distributed to the individual in charge of the divisions and instructions reviewed and
explained. The packets were then distributed to employees at their desks. The subjects completed the questionnaires and rating scale, placed the information back into the envelope from which it came, sealed the envelopes, and deposited the envelopes in the company mail. The maximum amount of time allowed to complete the questionnaire was five days.

The instruments were delivered via company mail to the Director of Research. At selected periods, the researcher obtained the unopened envelopes from the Director of Research and initiated the analysis of data.

Scoring Methodology

The peer rating instrument.—The envelope containing the peer rating of group members were sorted into their respective groups. The peer ratings for each member of each group were then compiled and added. The group member receiving the highest additive rating, achieved by adding the rating of each member of the group, was "extremely like" the criterion statement and was considered to be service-oriented. The group member receiving the lowest additive rating was "extremely unlike" the criterion statement and considered to be non-service-oriented.
In groups of less than 15, one employee at both extremes was selected. In groups of 15 or more, two employees at both extremes were selected. The appropriate subjects were then placed in the service-oriented and non-service-oriented categories. This procedure resulted in two "new" groups, a group of 35 service-oriented employees and a group of 35 non-service-oriented employees.

The 16 PF.—The answer sheets containing the responses of each of the 70 subjects were forwarded to the testing company in order to be machine scored (a sample answer sheet may be found in the appendix). Standard scores based on general population norms were obtained for the purposes of analysis.

The attitude questionnaire.—The attitude questionnaires for employees designated as service-oriented and non-service-oriented were then analyzed. Each subject's questionnaire was scored according to a scale from one to seven. Responses indicating commitment to the customer received a low score, one to three depending on the intensity of feeling. Responses indicating a lack of commitment received a high score, five to seven, depending on the intensity of feeling. Specifically, questions indicating
commitment to the customer were scored in the following manner: very strongly agree (1), strongly agree (2), agree (3), undecided (4), disagree (5), strongly disagree (6), very strongly disagree (7). Statements indicating a lack of, or which were opposed to, commitment to the customer were scored in the following manner: very strongly agree (7), strongly agree (6), agree (5), undecided (4), disagree (3), strongly disagree (2), very strongly disagree (1).

Statements relating to attitudes toward others, statements numbered 1 through 16, were then added and a total score obtained. Statements relating to attitude toward service, statements numbered 17 through 37 were then added and a total score obtained. The above procedure was followed in scoring the attitude questionnaire of each of the 70 subjects, 35 service-oriented subjects and 35 non-service-oriented subjects.

Statistical Analysis of the Data

The 16 P.F.---Sixteen scores, corresponding to 16 personality factors were obtained for each subject. The following process was repeated for each personality factor.
The score obtained for a particular personality factor was obtained for each of the service-oriented subjects and compiled into a list of 35. The above process was repeated for subjects designated as non-service-oriented. This resulted in two groups of 35, one service-oriented and one non-service-oriented. The significant difference between means was then computed utilizing the following formulas:

\[ s^2 = \frac{E(X-X_1)^2 + E(X-X_2)^2}{N_1 + N_2 - 2} \]

\[ t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{s^2}{N_1} + \frac{s^2}{N_2}}} \]

The Attitude Questionnaire

Attitude toward others (statements 1 through 16).--

The composite scores of each subject designated as service-oriented were placed with the scores of the other service-oriented subjects and compiled into a list of 23.

35 scores. This process was repeated for subjects who were designated as non-service-oriented thereby resulting in two groups of 35, one service-oriented and one non-service-oriented. The significant difference between means was then computed according to the following formula:

\[ s^2 = \frac{\sum (X - \bar{X})^2 + \sum (X_1 - \bar{X}_1)^2}{N_1 + N_2 - 2} \]

\[ t = \frac{X_1 - X_2}{\sqrt{\frac{s^2}{N_1} + \frac{s^2}{N_2}}} \]

*Attitude toward service (statements 17 through 37)*—The composite scores of each subject designated as service-oriented were placed with the scores of the other service-oriented subjects and compiled into a list of 35 scores. This process was repeated for subjects who were designated as non-service-oriented thereby resulting in two groups of 35, one service-oriented and one non-service-oriented. The significant difference between means was then computed according to the following formula.
s^2 = \frac{E(X-X_1)^2 + E(X-X_2)^2}{N_1 + N_2 - 2}

t = \frac{X_1 - X_2}{\sqrt{\frac{s^2_1 + s^2_2}{N_1}}}

Exploratory research into sub-problems associated with service.—Statements relating to exploratory sub-problems were segmented from the other statements and a score obtained for each subject in both groups for each exploratory problem under consideration. The following is a list of the problem areas and the number of the related statement.

a. Attitudes of personal responsibility for service. [Statements 32, 35, 37]

b. Importance of conforming to the established policy and procedure. [Statements 30, 33, 36]

c. Willingness to challenge manager on behalf of the customer. [Statements 29, 31, 34]
d. Willingness to defend the customer's interest over their own. [Statements 18, 21]

e. Identification with the customer as opposed to the organization in forced choice situations. [Statements 22, 27]

f. Attitude involving the relative importance of customer contact and non-customer contact positions. [Statements 17, 20, 24]

The composite scores of each subject designated as service-oriented were placed with the scores of the other service-oriented subjects and compiled into a list of 35 scores. This process was repeated for subjects designated as non-service-oriented thereby resulting in two groups of 35, one service-oriented and one non-service-oriented. The significant difference between the groups was then computed utilizing the formulas below. This process was followed for each of the six exploratory sub-problems.
\[ s^2 = \frac{E(X-X_1)^2 + E(X-X_2)^2}{N_1 + N_2 - 2} \]

\[ t = \frac{X_1 - X_2}{\sqrt{\frac{S^2}{N_1} + \frac{S^2}{N_2}}} \]
CHAPTER IV

THE FINDINGS

In analyzing the data (1) the sum of the scores was obtained, (2) the mean was computed, (3) variations from the mean were found, (3) the variations were then squared, (4) the sum of the variations determined, (5) the unbiased estimate of the variance computed, (6) the "T" ratio computed, and (7) the level of significance determined.

The minimum level of significance acceptable for this research was established at the .05 level.

The 16 P.F.

The general hypothesis, employees who were selected as service-oriented will have certain personality factors which are significantly different from the personality factors of employees who are rated by their peers as non-service-oriented, was supported. A general discussion of the particular personality factors found significantly different may be found in the "Summary."
Statistical Analysis of Specific Personality Factors

I. Cyclothymia versus Schizothymia

The following hypotheses were not confirmed.

a. Service-oriented employees are more sociable (cyclothymia) than are non-service-oriented employees.

b. Non-service-oriented employees are more aloof and stiff (schizothymia) than are service-oriented employees.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>X</th>
<th>X̄</th>
<th>(X-X̄)^2</th>
<th>degrees of freedom</th>
</tr>
</thead>
<tbody>
<tr>
<td>service-oriented</td>
<td>35</td>
<td>192.9</td>
<td>5.5</td>
<td>106.66</td>
<td>34</td>
</tr>
<tr>
<td>non-service-oriented</td>
<td>35</td>
<td>182.3</td>
<td>5.2</td>
<td>147.76</td>
<td>34</td>
</tr>
</tbody>
</table>

computations

\[
s^2 = \frac{106.66 + 147.76}{35 + 35 - 2} = \frac{254.42}{68} = 3.74
\]

\[
t = \frac{5.5 - 5.2}{\sqrt{\frac{3.74}{35} + \frac{3.74}{35}}} = \frac{.3}{\sqrt{.2136}} = 1.405
\]

\[
\begin{array}{ll}
\text{level of significance} & \\
3.74 1.405 & .10
\end{array}
\]
II. Intelligence

The hypothesis, there is no significant difference between the intelligence of service-oriented and non-service-oriented employees was confirmed.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>X</th>
<th>( \bar{X} )</th>
<th>((X-\bar{X})^2)</th>
<th>degrees of freedom</th>
</tr>
</thead>
<tbody>
<tr>
<td>service-oriented</td>
<td>35</td>
<td>269</td>
<td>7.69</td>
<td>111.78</td>
<td>34</td>
</tr>
<tr>
<td>non-service-oriented</td>
<td>35</td>
<td>261</td>
<td>7.50</td>
<td>77.49</td>
<td>34</td>
</tr>
</tbody>
</table>

computations

\[
\begin{align*}
    s^2 &= \frac{111.78 + 77.49}{35 + 35 - 2} = \frac{189.27}{68} = 5.4 \\
    t &= \sqrt{\frac{5.4 + 5.4}{35} + \frac{5.4 + 5.4}{35}} \\
        &= \frac{.19}{\sqrt{.308}} = .3423
\end{align*}
\]

\[\begin{array}{ccc}
    s^2 & t & \text{level of significance} \\
    5.4 & .3423 & \text{not significant}
\end{array}\]
III. Emotional Stability versus Emotional Instability

The following hypotheses were not confirmed.

a. Service-oriented employees are more emotionally stable than non-service-oriented employees.

b. Non-service-oriented employees are more emotionally unstable than are service-oriented employees.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>X</th>
<th>( \bar{X} )</th>
<th>(X-( \bar{X} ))^2</th>
<th>degree of freedom</th>
</tr>
</thead>
<tbody>
<tr>
<td>service-oriented</td>
<td>35</td>
<td>138.5</td>
<td>5.39</td>
<td>112.79</td>
<td>34</td>
</tr>
<tr>
<td>non-service-</td>
<td>35</td>
<td>193.4</td>
<td>5.53</td>
<td>137.50</td>
<td>34</td>
</tr>
<tr>
<td>oriented</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

computations

\[ s^2 = \frac{112.79 + 137.50}{35 + 35 - 2} = \frac{250.29}{68} = 3.68 \]

\[ t = \sqrt{\frac{3.68 + 3.68}{35}} = \frac{0.14}{0.21} = 0.658 \]

\[ s^2 \quad t \quad level\ of\ significance \]
\[ 3.68 \quad 0.3056 \quad not\ significant \]
IV. Submissive versus Dominance

The following hypotheses were not confirmed.

a. Service-oriented employees are more submissive than are non-service-oriented employees.

b. Non-service-oriented employees are more dominating than service-oriented employees.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>X</th>
<th>( \bar{X} )</th>
<th>((X-\bar{X})^2)</th>
<th>degrees of freedom</th>
</tr>
</thead>
<tbody>
<tr>
<td>service-oriented</td>
<td>35</td>
<td>187.6</td>
<td>5.36</td>
<td>160.52</td>
<td>34</td>
</tr>
<tr>
<td>non-service-oriented</td>
<td>35</td>
<td>179.4</td>
<td>5.13</td>
<td>139.05</td>
<td>34</td>
</tr>
</tbody>
</table>

computations

\[
s^2 = \frac{160.52 + 139.05}{35 + 35 - 2} = \frac{299.57}{68} = 4.41
\]

\[
t = \frac{5.36 - 5.13}{\sqrt{\frac{4.41}{35} + \frac{4.41}{35}}} = \frac{.23}{\sqrt{.2520}} = \frac{.23}{.502} = .458
\]

\[
\frac{s^2}{t} \quad \text{level of significance}
\]

\[
4.41 \quad .458 \quad \text{not significant}
\]
V. Surgency versus Desurgency

The following hypotheses were not confirmed.

a. Service-oriented employees are more surgent (enthusiastic, happy-go-lucky) than are non-service-oriented employees.

b. Non-service-oriented employees are more desurgent (glum, sober, serious) than are service-oriented employees.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>X</th>
<th>X</th>
<th>(X-\bar{X})^2</th>
<th>degrees of freedom</th>
</tr>
</thead>
<tbody>
<tr>
<td>service-oriented</td>
<td>35</td>
<td>212.3</td>
<td>6.07</td>
<td>277.85</td>
<td>34</td>
</tr>
<tr>
<td>non-service-</td>
<td>35</td>
<td>204.0</td>
<td>5.83</td>
<td>218.90</td>
<td>34</td>
</tr>
<tr>
<td>oriented</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

computations

\[ s^2 = \frac{277.85 + 218.90}{35 + 35 - 2} = \frac{496.75}{68} = 7.31 \]

\[ t = \frac{6.07 - 5.83}{\sqrt{\frac{7.31}{35} + \frac{7.31}{35}}} = \frac{.24}{\sqrt{.4176}} = \frac{.24}{.646} = .3715 \]

\[ s^2 = t \text{ level of significance} \]

\[ 7.31 \quad .3715 \quad \text{not significant} \]
VI. Expedient versus Conscientiousness

The following hypotheses were not confirmed.

a. Service-oriented employees are more lax in their internal standards than are non-service-oriented employees.

b. Non-service-oriented employees have more character or super-ego strength than do service-oriented employees.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>X</th>
<th>( \bar{X} )</th>
<th>((X-\bar{X})^2)</th>
<th>degrees of freedom</th>
</tr>
</thead>
<tbody>
<tr>
<td>service-oriented</td>
<td>35</td>
<td>197.5</td>
<td>5.64</td>
<td>106.38</td>
<td>34</td>
</tr>
<tr>
<td>non-service-oriented</td>
<td>35</td>
<td>206.5</td>
<td>5.91</td>
<td>108.97</td>
<td>34</td>
</tr>
</tbody>
</table>

computations

\[
s^2 = \frac{106.38 + 108.97}{35 + 35 - 2} = \frac{215.35}{68} = 3.17
\]

\[
t = \frac{5.91 - 5.64}{\sqrt{3.17 + 3.17}} = \frac{.27}{\sqrt{1.8114}} = .2
\]

\[
s^2 \quad t \quad \text{level of significance}
\]
\[
3.17 \quad .2 \quad \text{not significant}
\]
VII. Threctia versus Parmia

The following hypotheses were not confirmed.

a. Service-oriented employees are more 
   parmia (adventurous, thick-skinned) 
   than are non-service-employees.

b. Non-service-oriented employees are more 
   threctia (shy, timid) than are service- 
   oriented employees.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>X</th>
<th>( \bar{X} )</th>
<th>( (X-\bar{X})^2 )</th>
<th>degrees of freedom</th>
</tr>
</thead>
<tbody>
<tr>
<td>service-oriented</td>
<td>35</td>
<td>194.2</td>
<td>5.55</td>
<td>192.55</td>
<td>34</td>
</tr>
<tr>
<td>non-service-</td>
<td>35</td>
<td>191.1</td>
<td>5.46</td>
<td>142.11</td>
<td>34</td>
</tr>
</tbody>
</table>

computations

\( s^2 = \frac{192.55 + 142.11}{35 + 35 - 2} = \frac{334.66}{68} = 4.92 \)

\( t = \frac{5.55 - 5.46}{\sqrt{\frac{4.92}{35} + \frac{4.92}{35}}} = \frac{.09}{\sqrt{.2812}} = .09 = .09 \)

\( s^2 \quad t \quad \text{level of significance} \)

\( 4.92 \quad .09 \quad \text{not significant} \)
VIII. Harria versus Premisa

The following hypotheses were not confirmed.

a. Service-oriented employees are more premisa (sensitive, effeminate) than non-service-oriented employees.

b. Non-service-oriented employees are more harria (tough, realistic) than service-oriented employees.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>X</th>
<th>$\bar{X}$</th>
<th>$(X-\bar{X})^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>service-oriented</td>
<td>35</td>
<td>205.4</td>
<td>5.87</td>
<td>114.16</td>
</tr>
<tr>
<td>non-service-oriented</td>
<td>35</td>
<td>155.9</td>
<td>4.45</td>
<td>117.98</td>
</tr>
</tbody>
</table>

computations

$$s^2 = \frac{114.16 + 117.98}{35 + 35 - 2} = \frac{232.14}{68} = 3.41$$

$$t = \sqrt{\frac{5.87 - 4.45}{3.41}} = \frac{1.42}{\sqrt{.1948}} = \frac{1.42}{.441} = 3.219$$

$$s^2 = 3.41$$

level of significance

1.01

It should be noted that a significant difference does exist between the service-oriented and non-service-oriented employee. However, the difference is directly contrary to the hypothesized concepts of the investigator. Service-oriented employees are significantly more harria (tough, realistic) than are non-service-oriented employees. Non-service-oriented employees are significantly more premisa (sensitive, effeminate) than are service-oriented employees.
IX. Alaxia versus Protension²

The following hypotheses were not confirmed.

a. Service-oriented employees are more trusting (alaxia) than non-service-oriented employees.

b. Non-service-oriented employees are more suspecting and jealous (protension) than service-oriented employees.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>X</th>
<th>$\bar{X}$</th>
<th>$(X-\bar{X})^2$</th>
<th>degrees of freedom</th>
</tr>
</thead>
<tbody>
<tr>
<td>service-oriented</td>
<td>35</td>
<td>210.2</td>
<td>6.0</td>
<td>160.35</td>
<td>34</td>
</tr>
<tr>
<td>non-service-oriented</td>
<td>35</td>
<td>163.6</td>
<td>4.67</td>
<td>126.47</td>
<td>34</td>
</tr>
</tbody>
</table>

computations

$$s^2 = \frac{160.35 + 126.47}{35 + 35 - 2} = \frac{286.88}{68} = 4.22$$

$$t = \sqrt{\frac{160.35}{35} + \frac{126.47}{35}} = \sqrt{\frac{1.33}{68.241}} = \frac{4.22}{\sqrt{68.241}} = \frac{4.22}{8.27} = 0.51$$

It should be noted that a significant difference does exist between the service-oriented and non-service-oriented employee. However, the difference is directly contrary to the hypothesized concepts of the investigator. Service-oriented employees are significantly more suspecting and jealous (protension) than non-service-oriented employees. Non-service-oriented employees are significantly more trusting (alaxia) than service-oriented employees.
X. Praxernia versus Autia

The following hypotheses were confirmed.

a. Service-oriented and non-service-oriented employees are not significantly different in autia (bohemian, introverted, absent minded).

b. Service-oriented and non-service-oriented employees are not significantly different in praxernia (practical, concerned with facts).

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>X</th>
<th>(\bar{X})</th>
<th>((X-\bar{X})^2)</th>
<th>degrees of freedom</th>
</tr>
</thead>
<tbody>
<tr>
<td>service-oriented</td>
<td>35</td>
<td>204.3</td>
<td>5.84</td>
<td>151.56</td>
<td>34</td>
</tr>
<tr>
<td>non-service-oriented</td>
<td>35</td>
<td>191.0</td>
<td>5.46</td>
<td>140.22</td>
<td>34</td>
</tr>
</tbody>
</table>

computations

\[ s^2 = \frac{151.26 + 140.32}{35 + 35 - 2} = \frac{291.88}{68} = 4.29 \]

\[ t = \frac{5.84 - 5.46}{\sqrt{\frac{4.29}{35} + \frac{4.29}{35}}} = \frac{.38}{\sqrt{.2450}} = .38 = .7676 \]

\[ \frac{s^2}{t}, \frac{t}{\text{levels of significance}} \]

<table>
<thead>
<tr>
<th>s^2</th>
<th>t</th>
<th>levels of significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.29</td>
<td>.7676</td>
<td>not significant</td>
</tr>
</tbody>
</table>
XI. Naivete versus Shrewdness

The following hypotheses were not confirmed.

a. Service-oriented employees are more naïve (simple, unpretentious) than non-service-oriented employees.

b. Non-service-oriented employees are more shrewd than service-oriented employees.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>X</th>
<th>X̄</th>
<th>(X̄-X)^2</th>
<th>degrees of freedom</th>
</tr>
</thead>
<tbody>
<tr>
<td>service-oriented</td>
<td>35</td>
<td>213.4</td>
<td>6.1</td>
<td>131.49</td>
<td>34</td>
</tr>
<tr>
<td>non-service-oriented</td>
<td>35</td>
<td>189.4</td>
<td>5.4</td>
<td>135.10</td>
<td>34</td>
</tr>
</tbody>
</table>

Computations

\[
s^2 = \frac{131.49 + 135.10}{35 + 35 - 2} = \frac{266.59}{68} = 3.92
\]

\[
t = \frac{6.1 - 5.4}{\sqrt{\frac{3.92}{35} + \frac{3.92}{35}}} = \frac{.7}{.224} = .7 = 4.676
\]

\[
s^2 = 3.92 \quad t = 4.676 \quad \text{level of significance} \quad .01
\]

It should be noted that while the hypothesis was not confirmed, a significant difference does exist between the service-oriented and non-service-oriented employee. The difference is directly contrary to the hypothesized concepts of the investigator. Service-oriented employees are significantly more shrewd than non-service-oriented employees. Non-service-oriented employees are more naïve than are service-oriented employees.
XII. Placid versus Apprehensive

The following hypotheses were confirmed.

a. Service-oriented and non-service-oriented employees are not significantly different in confidence and feelings of adequacy.

b. Service-oriented and non-service-oriented employees are not significantly different in guilt proneness.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>X</th>
<th>( \bar{X} )</th>
<th>((X-\bar{X})^2)</th>
<th>degrees of freedom</th>
</tr>
</thead>
<tbody>
<tr>
<td>service-oriented</td>
<td>35</td>
<td>194.0</td>
<td>5.54</td>
<td>133.10</td>
<td>34</td>
</tr>
<tr>
<td>non-service-oriented</td>
<td>35</td>
<td>191.5</td>
<td>5.57</td>
<td>115.69</td>
<td>34</td>
</tr>
</tbody>
</table>

computations

\[
s^2 = \frac{133.10 + 115.69}{35 + 35 - 2} = \frac{248.79}{68} = 4.66
\]

\[
t = \frac{5.54 - 5.47}{\sqrt{\frac{4.66}{35} + \frac{4.66}{35}}} = \frac{0.7}{\sqrt{0.266}} = \frac{0.7}{0.516} = 1.3565
\]

It should be noted that while the hypothesis of no significant difference at the .05 level was confirmed, there is a significant difference at the .10 level. Thus, it would seem that perhaps there is a "tendency" for the service-oriented to be more apprehensive/guilt prone than the non-service-oriented employee. Also, the non-service-oriented employee tends to be more assured (placid) than the service-oriented.
XIII. Conservatism versus Radicalism

The following hypotheses were confirmed.

a. Service-oriented and non-service-oriented employees are not significantly different in conservatism.

b. Service-oriented and non-service-oriented employees are not significantly different in radicalism.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>X</th>
<th>( \bar{X} )</th>
<th>( (X-\bar{X})^2 )</th>
<th>degrees of freedom</th>
</tr>
</thead>
<tbody>
<tr>
<td>service-oriented</td>
<td>35</td>
<td>231.6</td>
<td>6.1</td>
<td>105.99</td>
<td>34</td>
</tr>
<tr>
<td>non-service-oriented</td>
<td>35</td>
<td>189.5</td>
<td>3.41</td>
<td>95.05</td>
<td>34</td>
</tr>
</tbody>
</table>

computations

\[
s^2 = \frac{\sum_{i=1}^{n}(X_i - \bar{X})^2}{n-1} = \frac{105.99 + 95.05}{35 + 35 - 2} = \frac{201.04}{68} = 2.96
\]

\[
t = \frac{\bar{X}_1 - \bar{X}_2}{s_\text{pooled} \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}} = \frac{6.1 - 5.41}{\sqrt{\frac{2.96}{35} + \frac{2.96}{35}}} = \frac{.69}{\sqrt{1.6914}} = .5307
\]

\[
\frac{s^2}{t} \quad \text{level of significance}
\]

\[
\frac{2.96}{.53} = \text{not significant}
\]
XIV. Group-tied versus Self-sufficient

The following hypotheses were confirmed.

a. Service-oriented employees are more group dependent than non-service-oriented employees.

b. Non-service-oriented employees are more self-sufficient than service-oriented employees.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>X</th>
<th>( \bar{X} )</th>
<th>((X-\bar{X})^2)</th>
<th>Freedom</th>
</tr>
</thead>
<tbody>
<tr>
<td>service-oriented</td>
<td>35</td>
<td>207.7</td>
<td>5.93</td>
<td>124.04</td>
<td>34</td>
</tr>
<tr>
<td>non-service-oriented</td>
<td>35</td>
<td>201.3</td>
<td>5.75</td>
<td>177.60</td>
<td>34</td>
</tr>
</tbody>
</table>

computations

\[
s^2 = \frac{124.04 + 177.60}{35 + 35 - 2} = \frac{301.64}{66} = 4.44
\]

\[
t = \frac{5.93 - 5.75}{\sqrt{\frac{4.44 + 4.44}{35 + 35}}} = \frac{0.18}{\sqrt{2.536}} = \frac{0.18}{.5029} = .3579
\]

\[
s^2 \quad t \quad \text{level of significance}
\]

\[
4.44 \quad .3579 \quad \text{not significant}
\]
XV. Casual versus Controlled

The following hypotheses were not confirmed.

a. Service-oriented employees are significantly higher in self-sentiment formation (controlled, exacting will power) than employees selected as non-service-oriented.

b. Non-service-oriented employees are significantly higher in poor self-sentiment formation (uncontrolled, lax) than service-oriented employees.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>X</th>
<th>( \bar{X} )</th>
<th>((X-\bar{X})^2)</th>
<th>degrees of freedom</th>
</tr>
</thead>
<tbody>
<tr>
<td>service-oriented</td>
<td>35</td>
<td>193.8</td>
<td>5.54</td>
<td>157.48</td>
<td>34</td>
</tr>
<tr>
<td>non-service-oriented</td>
<td>35</td>
<td>214.0</td>
<td>6.11</td>
<td>82.71</td>
<td>34</td>
</tr>
</tbody>
</table>

Computations

\[
s^2 = \frac{157.48 + 82.71}{35 + 35 - 2} = \frac{240.19}{68} = 3.53
\]

\[
t = \frac{6.11 - 5.54}{\sqrt{\frac{3.53 + 3.53}{35} + \frac{3.53}{35}}} = \frac{.57}{\sqrt{2.02}} = .4014
\]

\[
s^2 \quad t \quad \text{level of significance}
\]

\[
3.53 \quad .4014 \quad \text{not significant}
\]
The following hypotheses were not confirmed.

a. Service-oriented employees are more relaxed (low ergic tension) than are non-service-oriented employees.

b. Non-service-oriented employees are more tense and excitable (high ergic tension) than are service-oriented employees.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>X</th>
<th>( \bar{X} )</th>
<th>( (X-\bar{X})^2 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>service-oriented</td>
<td>35</td>
<td>188.4</td>
<td>5.38</td>
<td>181.32</td>
</tr>
<tr>
<td>non-service-</td>
<td>35</td>
<td>188.1</td>
<td>5.37</td>
<td>114.39</td>
</tr>
<tr>
<td>oriented</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Computations

\[
s^2 = \frac{181.32 + 114.39}{35 + 35 - 2} = \frac{295.71}{68} = 4.35
\]

\[
t = \frac{5.38 - 5.37}{\sqrt{\frac{4.35 + 4.35}{35 \cdot 35}}} = \frac{.01}{.248} = .01 = .02
\]

\[
\frac{s^2}{t} \quad \text{level of significance}
\]

\[
4.35 \quad .02 \quad \text{not significant}
\]
The Attitude Questionnaire

Attitudes Toward Others

The difference between the mean attitude toward others of the subjects designated as service-oriented and subjects designated as non-service-oriented was found to be significant at the .01 level. Based upon the established criterion of .05, the hypothesis that service-oriented employees have a more positive attitude toward others was confirmed.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>X</th>
<th>X̄</th>
<th>(X- X̄)²</th>
<th>degrees of freedom</th>
</tr>
</thead>
<tbody>
<tr>
<td>service-oriented</td>
<td>35</td>
<td>158.8</td>
<td>45.37</td>
<td>3047.1</td>
<td>34</td>
</tr>
<tr>
<td>non-service-oriented</td>
<td>35</td>
<td>183.7</td>
<td>52.49</td>
<td>3628.43</td>
<td>34</td>
</tr>
</tbody>
</table>

computations

\[ s^2 = \frac{3047.1 + 3628.43}{35 + 35 - 2} = \frac{6675.53}{68} = 98.17 \]

\[ t = \frac{52.49 - 45.37}{\sqrt{\frac{98.17}{35} + \frac{98.17}{35}}} = \frac{7.12}{\sqrt{5.61}} = 7.12 = 3.01 \]

\[ s^2 \quad t \quad \text{level of significance} \]
\[ 98.17 \quad 3.01 \quad .01 \]
Attitude Toward Service

The differences in attitude toward others of subjects designated as service-oriented and non-service-oriented was found to be significant at the .01 level. Based upon the established criterion of .05, the hypothesis that employees rated as service-oriented have a positive attitude toward service and that those employees rated as non-service-oriented have a less positive attitude toward service was confirmed.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>X</th>
<th>X̄</th>
<th>(X- X̄)²</th>
<th>degrees of freedom</th>
</tr>
</thead>
<tbody>
<tr>
<td>service-oriented</td>
<td>35</td>
<td>235.4</td>
<td>67.26</td>
<td>5814.03</td>
<td>34</td>
</tr>
<tr>
<td>non-service-</td>
<td>35</td>
<td>286.4</td>
<td>81.82</td>
<td>3618.88</td>
<td>34</td>
</tr>
</tbody>
</table>

computations

\[
s^2 = \frac{5814.03 + 3618.88}{35 + 35 - 2} = \frac{9432.91}{68} = 138.72
\]

\[
t = \frac{81.82 - 67.26}{\sqrt{138.72 + 138.72}} = \frac{14.56}{\sqrt{7.942}} = 5.16
\]

<table>
<thead>
<tr>
<th>s²</th>
<th>t</th>
<th>level of significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>138.71</td>
<td>5.16</td>
<td>.01</td>
</tr>
</tbody>
</table>
Exploratory Sub-problems Relating to Service

1. Based upon the established .05 level of significance, the exploratory hypothesis, employees selected as service-oriented will have stronger feelings of personal responsibility for service than employees selected as non-service-oriented, was confirmed.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>X</th>
<th>( \bar{X} )</th>
<th>((X-\bar{X})^2)</th>
<th>degrees of freedom</th>
</tr>
</thead>
<tbody>
<tr>
<td>service-oriented</td>
<td>35</td>
<td>344</td>
<td>9.83</td>
<td>170.99</td>
<td>34</td>
</tr>
<tr>
<td>non-service-oriented</td>
<td>35</td>
<td>385</td>
<td>11.00</td>
<td>235.00</td>
<td>34</td>
</tr>
</tbody>
</table>

computations

\[
s^2 = \frac{170.99 + 235}{35} = \frac{405.99}{35} = 5.97
\]

\[
t = \frac{11.00 - 9.83}{\sqrt{\frac{5.97}{35} + \frac{5.97}{35}}} = \frac{1.17}{\sqrt{.3410}} = \frac{1.17}{.584} = 2.00
\]

\[
\begin{array}{ccc}
\text{s}^2 & t & \text{level of significance} \\
5.97 & 2.00 & .05
\end{array}
\]
2. The exploratory hypothesis, employees selected as service-oriented will be less likely than employees selected as non-service-oriented to conform to the established policies and procedures of the organization was confirmed.

The confirmation is based upon the established .05 significance criterion.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>X</th>
<th>$\bar{X}$</th>
<th>$(X-\bar{X})^2$</th>
<th>degrees of freedom</th>
</tr>
</thead>
<tbody>
<tr>
<td>service-oriented</td>
<td>35</td>
<td>31.5</td>
<td>9.0</td>
<td>259.00</td>
<td>34</td>
</tr>
<tr>
<td>non-service-</td>
<td>35</td>
<td>39.0</td>
<td>11.14</td>
<td>278.79</td>
<td>34</td>
</tr>
<tr>
<td>oriented</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Computations**

\[
 s^2 = \frac{259 + 278.79}{35 + 35 - 2} = \frac{537.79}{68} = 7.91
\]

\[
 t = \frac{11.14 - 9.0}{\sqrt{\frac{7.91 + 7.91}{35} + \frac{7.91}{35}}} = \frac{2.14}{0.673} = 3.17
\]
3. The exploratory hypothesis, employees selected as service-oriented will be more inclined than employees selected as non-service-oriented to challenge management on behalf of the customer was confirmed. The confirmation is based upon the established .05 significance criterion.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>X</th>
<th>( \bar{X} )</th>
<th>( (X-\bar{X})^2 )</th>
<th>degrees of freedom</th>
</tr>
</thead>
<tbody>
<tr>
<td>service-oriented</td>
<td>35</td>
<td>.331</td>
<td>9.46</td>
<td>260.63</td>
<td>34</td>
</tr>
<tr>
<td>non-service-oriented</td>
<td>35</td>
<td>415</td>
<td>11.86</td>
<td>196.94</td>
<td>34</td>
</tr>
</tbody>
</table>

Computations

\[
s^2 = \frac{260.63 + 196.94}{35 + 35 - 2} = \frac{457.57}{68} = 6.73
\]

\[
t + \frac{11.86 - 9.46}{\sqrt{\frac{6.73 + 6.73}{35} + \frac{6.73}{35}}} = \frac{2.40}{\sqrt{.3846}} = 2.40 = 3.87
\]

\[
\frac{s^2}{t} = \frac{6.73}{3.87} \quad \text{level of significance} = .01
\]
4. The exploratory hypothesis, employees selected as service-oriented will be more inclined than employees selected as non-service-oriented to defend the customers interest over their own, was confirmed. The confirmation is based upon the established .05 significance criterion.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>X</th>
<th>( \bar{X} )</th>
<th>( (X-\bar{X})^2 )</th>
<th>degrees of freedom</th>
</tr>
</thead>
<tbody>
<tr>
<td>service-oriented</td>
<td>35</td>
<td>203</td>
<td>5.8</td>
<td>189.60</td>
<td>34</td>
</tr>
<tr>
<td>non-service-oriented</td>
<td>35</td>
<td>246</td>
<td>7.03</td>
<td>135.00</td>
<td>34</td>
</tr>
</tbody>
</table>

Computations

\[
s^2 = \frac{189.60 + 135.00}{35 + 35 - 2} = \frac{324.60}{68} = 4.77
\]

\[
t = \frac{7.03 - 5.8}{\sqrt{\frac{4.77}{35} + \frac{4.77}{35}}} = \frac{1.23}{\sqrt{2.73}} = \frac{1.23}{1.65} = 0.752
\]

\[
\begin{array}{ccc}
\text{s}^2 & t & \text{level of significance} \\
4.77 & 2.352 & .05
\end{array}
\]
5. The exploratory hypothesis, employees selected as service-oriented will be more inclined than employees selected as non-service-oriented to identify with the customer as opposed to the organization was confirmed. The confirmation is based upon the established .05 significance criterion.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>X</th>
<th>X̄</th>
<th>(X-X)²</th>
<th>degrees of freedom</th>
</tr>
</thead>
<tbody>
<tr>
<td>service-oriented</td>
<td>35</td>
<td>234</td>
<td>6.69</td>
<td>211.59</td>
<td>34</td>
</tr>
<tr>
<td>non-service-oriented</td>
<td>35</td>
<td>286</td>
<td>8.17</td>
<td>191.01</td>
<td>34</td>
</tr>
</tbody>
</table>

computations

\[ s^2 = \frac{211.59 + 191.01}{35 + 35 - 2} = \frac{402.60}{68} = 5.92 \]

\[ t = \frac{8.17 - 6.69}{\sqrt{5.92 + 5.92}} = \frac{1.48}{\sqrt{1.18}} = \frac{1.48}{.338} = 4.388 \]

\[ \frac{s^2}{s^2} \quad t \quad \text{level of significance} \]

\[ 5.92 \quad 2.547 \quad .01 \]
6. The exploratory hypothesis, employees selected as service-oriented will be more inclined than employees selected as non-service-oriented to believe that positions which have direct contact with the customer are important relative to customer contact positions, was confirmed.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>X</th>
<th>$\bar{X}$</th>
<th>(X-$\bar{X}$)$^2$</th>
<th>degrees of freedom</th>
</tr>
</thead>
<tbody>
<tr>
<td>service-oriented</td>
<td>35</td>
<td>349</td>
<td>9.97</td>
<td>490.14</td>
<td>34</td>
</tr>
<tr>
<td>non-service-oriented</td>
<td>35</td>
<td>427</td>
<td>12.2</td>
<td>363.52</td>
<td>34</td>
</tr>
</tbody>
</table>

Computations

$$s^2 = \frac{490.14 + 363.52}{35 + 35 - 2} = \frac{853.66}{68} = 12.55$$

$$t = \frac{12.2 - 9.97}{\sqrt{\frac{12.55}{35} + \frac{12.55}{35}}} = \frac{2.23}{\sqrt{.7170}} = 2.63$$

$$\frac{s^2}{t} = \frac{12.55}{2.63} = .01$$

level of significance

88
Reliability

The following formula, Spearman's coefficient of rank correlation, was used to obtain correlation using the split-half method.

\[
 r_{hh} = 1 - \frac{6 \sigma^2}{N(N^2-1)}
\]

The resulting reliability for the half test was then computed for the whole test by using the following, Spearman Brown, formula.

\[
 r_{ww} = \frac{2r_{hh}}{1+r_{hh}}
\]

The above procedure was followed in obtaining the reliability of both segments of the attitude questionnaire, (1) attitude toward others and (2) attitude toward service.

Attitude Toward Others

The reliability of the segment of the attitude questionnaire concerned with "attitudes toward others" was .83. The following are the computations.

\[
 r_{hh} = 1 - \frac{6 \sigma^2}{N(N^2-1)}
\]

\[
 r_{hh} = 1 - \frac{6(16,112.94)}{70(70^2 - 1)}
\]

\[
 r_{hh} = 1 - \frac{96,677.64}{70(4900-1)}
\]
\[ r_{hh} = 1 - \frac{96,677.64}{34,293.0} \]
\[ r_{hh} = 1 - .28 \]
\[ r_{hh} = .72 \]
\[ r_{ww} = \frac{2r_{hh}}{1 + r_{hh}} \]
\[ r_{ww} = \frac{2(.72)}{1 + .72} \]
\[ r_{ww} = \frac{1.44}{1.72} \]
\[ r_{ww} = .83 \]

**Attitude Toward Service**

The reliability of the segment of the attitude questionnaire concerned with "attitude toward service" was .78. The following are the computations.

\[ r_{hh} = 1 - \frac{6\overline{d}^2}{N(N^2-1)} \]
\[ r_{hh} = 1 - \frac{6(19,823.75)}{70(70-1)} \]
\[ r_{hh} = 1 - \frac{118,942.00}{342,930} \]
\[ r_{hh} = 1 - 34.6 \]
\[ r_{hh} = .65 \]
Summary

It was found that the service-oriented and the non-service-oriented employee have certain personality factors which are significantly different. Specifically the service-oriented employee is significantly more suspecting and jealous, more shrewd, and more tough minded than are non-service-oriented employees. Conversely, non-service-oriented employees are more trusting, more navié and more sensitive. The findings also indicate a "trend" toward significance, .10 level of significance, on two personality factors. At the .10 level of significance, less than acceptable, it was found that service-oriented employees are more warm and social and are also more guilt prone than are non-service-oriented employees. Conversely, it was found that non-service-oriented employees are more aloof, stiff or reserved and that they were also more assured or placid than are service-oriented employees.

\[
\begin{align*}
    r_{ww} &= \frac{2r_{hh}}{1 + r_{hh}} \\
    r_{ww} &= \frac{2(.65)}{1 + .65} \\
    r_{ww} &= \frac{1.30}{1.65} \\
    r_{ww} &= .78
\end{align*}
\]
It was found that service-oriented employees had a significantly more positive attitude toward others than the non-service-oriented employee.

It was also determined that the service-oriented employee had a significantly more positive attitude toward service than the non-service-oriented employee.

The findings also indicate that there appears to be tentative support for the conclusion that service-oriented employees also have greater feelings of personal responsibility for service, are less likely to conform to the established procedure and policy and are more likely to challenge management on behalf of the customer than the non-service-oriented employee.

The service-oriented employee is also more likely to place the customers' interests above his own interests, to identify with the customer as opposed to the organization, and to be more inclined to believe that the non-customer contact positions are important in serving the customer than is the non-service-oriented employee.
Discussion

While it has been determined that there are significant differences in certain personality factors of the service-oriented and non-service-oriented employee, and that certain factors are "tending" toward an acceptable level of significance, the researcher does not believe that upon the basis of this research Cattell's instrument, the "16 PF," can be used for the selection of the potentially service-oriented employee. However, because of the significant difference of certain factors and the "trend" of other factors, it is believed that the problem is worthy of additional attention and therefore should be pursued through the performance of replicative and associative research.

The finding that there is a significant difference in attitude toward others and attitude toward service between the service-oriented and non-service-oriented employee does provide the basis for certain implications, conclusions and further research.

The fact that service-oriented employees have a more positive orientation toward others is of significant importance in relation to the impact on
interpersonal relationships between the employee and customer. Previous research has found that individuals with a high acceptance of others tend to feel accepted by others in interpersonal relationships and also tend to be accepted by them. (Refer to Chapter II of this dissertation.) The significance of this may be found in the acceptance of the employee by the customer (servicee) and its importance in establishing a communicative link thereby permitting the conveyance of information leading to the optimization of service and the achievement of the organizational objectives.

The significantly more positive attitude of the service-oriented employee toward others and service is also of importance in organizational positions which do not involve customer contact. It has been shown that the individual's attitude, frame of reference, or mental set has an effect on the retention or non-retention of material, upon the individual's perception of remarks of others, upon the individual's judgment of social situations or predictions of future events, upon the individual's recognition rate of critical data, and upon what is perceptually admissible or non-admissible. (Refer to Chapter II of this dissertation.)
Thus, both within customer or non-customer contact positions, the employee's attitude becomes important in the determination of perception and behavior. This perception and behavior in turn may effect the processing of data within the supportive segments of the organization. Thus, the attitude of the employee may directly effect the service provided through behavior in customer contact positions or indirectly through the behavior of individuals in supportive or data processing segments of the organization. Employees with a positive attitude both toward others and toward service should function in a manner which would permit the retention of data critical to the customer, a positive perception of the remarks of others, a positive judgment of dubious social situations, a positive prediction of future customer behaviors, and a rapid recognition rate of critical data. The non-service-oriented employees should, conversely, function in a manner which would be less positive than the above service-oriented behaviors.

The secondary findings thus have important implications in relation to the ability of the organization's, group's or individual's desire to serve the customer, but also in the ability to serve the customer.
The negative effect of attitude on behavior patterns may be of practical importance in the actual perception of problems, their definition, and the recommended solutions. It would appear that the past research, plus the findings in the present research provide a basis for the pursuit of specific research within the business environment within the above mentioned areas. The segment "Recommendations for Additional Research" specifically states additional research problems.
CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS FOR FUTURE RESEARCH

Summary

The population of the United States has increased at a rapid rate in the past few years and is projected to do so in the future. Because of the increased number of people, segments of our society and the organizations within these segments will increase in number, size, and complexity. Organizations having the responsibility of providing service to the customer will become increasingly concerned with the problem of providing optimum service to the customer.

Historically, in attempting to improve service, business has focused on "acts of service," i.e., overt manifestations of behavior. While important, it was concluded that the "act" of service is a superficial type or level of service if not motivated by an attitude of service. The more basic level of service may be found in
the attitude of service. It is the employee who has a positive attitude toward service, i.e., an attitude of service which business must seek for selected positions in order to provide the optimum in service to the customer.

The basic problem was to locate the service-oriented and non-service-oriented employee, as determined by their peers, so as to determine if significantly different personality factors exist which would permit the identification of the service-oriented employee for personnel selection purposes.

Sub-problems included determining if a significance exists between the service-oriented and non-service-oriented employee's attitudes toward others and toward service. Exploratory sub-problems concerned with service were also researched.

Subjects were selected from a large service organization in the midwest United States. Peer ratings were obtained in order to locate the service-oriented and non-service-oriented employees in each group sampled. These peer ratings resulted in a group of thirty-five service-oriented employees and a group of thirty-five non-service-oriented employees. The significant difference between the means of the groups was then computed for each
of the 16 personality factors, attitude toward others, attitude toward service, and the exploratory sub-problems. A criterion level of significance was established at .05.

Conclusions

The following conclusions are based upon the research:

1. A significant difference exists in certain personality factors of the service-oriented and non-service-oriented employee.

2. The service-oriented employee is significantly more (1) shrewd, (2) tough minded and (3) suspecting and jealous.

3. Conversely to the above, the non-service-oriented employee is significantly more (1) naive, (2) sensitive and (3) trusting.

4. The service-oriented employee has a significantly more positive attitude toward others than does the non-service-oriented employee.

5. The service-oriented employee, as determined by peers, has a significantly more positive attitude toward service than does the non-service-oriented employee.
6. There is tentative support for the following conclusions. These conclusions relate to the exploratory sub-problems.

a. The service-oriented employee has a stronger feeling of personal responsibility for service than does the non-service-oriented employee.

b. The service-oriented employee is less likely to conform to the established policy and procedure than the non-service-oriented employee.

c. The service-oriented employee is more likely to challenge management on behalf of the customer than is the non-service-oriented employee.

d. The service-oriented employee is more likely to place the customer's interest over his own than is the non-service-oriented employee.

e. The service-oriented employee is more likely to identify with the customer as opposed to the firm than is the non-service-oriented employee.
f. The service-oriented employee is more likely to believe that non-customer contact positions are important in serving the customer than is the non-service-oriented employee.

Recommendations for Future Research

The following are recommendations for future research.

1. Service-oriented and non-service-oriented employees should be studied in order to determine if a significant difference exists in their job behaviors and, assuming a difference exists, what are the implications for organizational effectiveness.

2. The problem-solving of service-oriented and non-service-oriented employees should be researched in order to determine if their analysis of the problem, definition of the problem and recommended solution are significantly different. Assuming a difference, research should be initiated which would determine the impact of each recommended solution on organizational effectiveness.

3. Research should be initiated on the service-oriented or non-service-oriented employee which would deny or support previous research concerning the effect of
attitude on behavior. This research should be concerned specifically with the impact of positive or negative attitudes toward others and service on specific job related behaviors. Sample areas are learning time, memory, perception of ambiguous situations, judgment, prediction of future, et cetera.

4. Longitudinal research should be initiated concerning the impact of the group attitude toward service on a new member of that group. This would require an attitude survey of the group and new member before the "new member" becomes part of the group and periodic surveys after the new member becomes part of the group.

5. The effect of the supervisor's attitude toward service on the subordinate's attitude toward service should be investigated.

6. Research should be initiated which would determine the effect of different systems of employee evaluation upon attitudes of service.

7. Replicative research should be initiated which would support or deny support for the findings of the present research.

8. Additional research should be conducted into each of the exploratory sub-problems discussed in this
and into the areas of concern to which each problem leads. Specific areas of concern are as follows.

a. Research should be initiated which would support or deny support for the conclusion that the service-oriented employee has stronger feelings of personal responsibility for service than the non-service-oriented employee. Assuming the above is supported, research should be initiated which would indicate how this attitude is developed and reinforced.

b. Research should be initiated which would support or deny support for the conclusion that service-oriented employees are less likely than non-service-oriented employees to conform to the established policy and procedure than is the non-service-oriented employee. Assuming that the above is valid, research should be initiated which would determine if the service-oriented and non-service-oriented employee are significantly
different in the formulation of policy and the perception of future problems associated with the initiation of that policy. If a significant difference does exist, it may support the conclusion that both the service-oriented and non-service-oriented employee should service on policy forming committees.

c. Research should be conducted which would support or deny support for the conclusion that the service-oriented employee is more likely to challenge management on behalf of the customer than is the non-service-oriented employee. Assuming the above is valid, research should be conducted which would determine the resulting relationship between management and operative and its impact on future attitudes and job behaviors related to service.

d. Research should be conducted which would support or deny support for the conclusions that the service-oriented employee is more likely to place the customer's interests over
his own, to identify with the customer as opposed to the firm, and is more likely to believe that non-customer contact positions are important in serving the customer, than is the non-service-oriented employee.

9. Research should be conducted which would lead to the determination of the most advantageous method of attitude change for employees with a negative attitude toward service who are functioning in customer "serving" positions.
APPENDIX
Letter to Employees

Dear Employee:

Certain work sections, one of which you are a part, have been selected to take part in a research study conducted by a staff member of The Ohio State University. Please read the directions carefully and record your first answer. Do not delay or give extensive thought to each question. Your first responses are the best. The following are the steps to be completed.

**Step 1.**—Complete the questionnaire in envelope number one [1]. The statements do not imply a correct or incorrect orientation but merely a like or unlike orientation. An individual rated lower than other individuals may be like the statement indicated but not as much like the statement as individuals rated higher.

**Step 2.**—Complete the questionnaire in envelope number two [2]. There are no "right" or "wrong" answers, only differences of opinion and attitude.

**Step 3.**—Seal and place the envelope in company mail within five days.

All responses are COMPLETELY CONFIDENTIAL. Your responses should be mailed to the Department of Research and will then be forwarded to me at The Ohio State University.

Thank you for your assistance.

Sincerely,

D. R. Domm

DRD:rll
Peer Questionnaire

Please read the following statement with care:

This individual frequently deviates from the procedures and policies established by the company in order to provide the customer with the best possible assistance.

Evaluate the following individuals, including yourself, in relation to the above statement and mark your rating on the following scale with an "X."

Note: ¼ of your choices should be in the lower segment (1-3) ¼ of your choices should be in the middle segment (4-6) ¼ of your choices should be in the upper segment (7-9)

<table>
<thead>
<tr>
<th>Name: John Doe (example)</th>
<th>Extremely unlike the above</th>
<th>Somewhat like the above</th>
<th>Extremely like the above</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 X 7 8 9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 2 3 4 5 6 7 8 9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 2 3 4 5 6 7 8 9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 2 3 4 5 6 7 8 9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 2 3 4 5 6 7 8 9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 2 3 4 5 6 7 8 9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 2 3 4 5 6 7 8 9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 2 3 4 5 6 7 8 9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 2 3 4 5 6 7 8 9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 2 3 4 5 6 7 8 9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 2 3 4 5 6 7 8 9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 2 3 4 5 6 7 8 9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 2 3 4 5 6 7 8 9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 2 3 4 5 6 7 8 9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 2 3 4 5 6 7 8 9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 2 3 4 5 6 7 8 9</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Name: ____________________________

General Questionnaire

The following are statements with which you may disagree or agree. Please read each statement carefully and mark your answer with an "X."

Key:  VSD = Very Strongly Disagree
      SD = Strongly Disagree
      D = Disagree
      U = Undecided
      A = Agree
      SA = Strongly Agree
      VSA = Very Strongly Agree

EXAMPLE:
The employee must consider his own interest first. VSD SD D U A SA VSA

1. When others make an error in my presence, I am almost certain to point it out to them. VSD SD D U A SA VSA

2. When others fail to agree with me on some topic which I know well, I am somewhat disturbed. VSD SD D U A SA VSA

3. I find it hard to take a genuine interest in the problems of others. VSD SD D U A SA VSA

4. I am critical of the dress, manner or ideas of most others. VSD SD D U A SA VSA

5. Others consistently do things of which I disapprove. VSD SD D U A SA VSA

6. I find it hard to accept people who are members of minority groups. VSD SD D U A SA VSA
7. I think that a large share of the problems which we have are due to the fact that people are basically stubborn, dishonest or inferior.

8. When I first meet another person, I try to size him (or her) up to see whether I am better (or not as good) as this person.

9. On the whole, people are not very socially or emotionally mature.

10. People are generally hard to "get along" with.

11. One should not give attention to the opinions of others when one is certain that he is correct.

12. One soon learns to expect very little of others.

13. I am not concerned with the opinions of others as long as I am fairly certain that I am headed toward my goals.

14. I find it hard to sympathize with others when I find that their misfortunes are due to their own short-comings.

15. Extreme radicals and extreme conservatives have only nuisance value as far as I am concerned.
16. Other people are always trying to get more than their share of the good things in life.

17. Individuals which meet the customer on a face-to-face basis are principally responsible for assistance to the customer.

18. In disputes with other people, the employee must consider his own interests first.

19. One of the difficulties in assisting customers is that they expect too much.

20. The employee can be less concerned with service when working in an office which does not directly affect the customer than when working in an office which directly affects the customer.

21. Care and assistance to other people should always be considered before the employee considers his own welfare.

22. The employee should be more concerned with the problems of the customer than the problems of the company.
23. The company is presently not as concerned with assistance to the customer as it should be. VSD SD D U A SA VSA

24. Departments which have direct contact with the customer are principally responsible for service to the customer. VSD SD D U A SA VSA

25. The company is not spending enough money in order to determine if the customer is receiving the best possible care and assistance. VSD SD D U A SA VSA

26. When the company has a rate increase, customers usually ask too many needless questions concerning why the rate has been increased. VSD SD D U A SA VSA

27. The customer should always be told the complete truth about the product or service being sold, even if it damages the image of the company. VSD SD D U A SA VSA

28. Individuals who purchase a very large amount of insurance are more important to the company than individuals who purchase a very small amount of insurance. VSD SD D U A SA VSA
29. If a dispute occurs between providing the best assistance to the customer and the instructions of the employee's boss, the employee should challenge the bosses' instructions.

30. It is extremely important that employees be methodical, prudent and conform very closely with the patterns of action recommended by the firm.

31. If the employee knows that the customers are not receiving the best assistance because of certain practices of management, the employee should attempt to have the practices of management changed.

32. The ultimate responsibility for assistance to the customer lies with each employee.

33. The best assistance to the customer is always provided by sticking to the "tried and true" procedures.

34. The employee should abolish the accepted and established procedures when the procedures do not provide the very best in care and assistance to the customer.
35. The employee should always provide the customer with the best possible assistance, even when the customer does not desire, appreciate or expect the assistance.

36. Employees should conform to the established procedures of the firm, even in cases when it may eventually result in the customer not receiving the best possible assistance.

37. The company is primarily responsible for seeing to it that the customer receives the best possible assistance.

Please complete the following:

I am in the following age range: 0-19 [ ] 20-29 [ ] 30-39 [ ] 40-49 [ ] 50-59 [ ] 60 + [ ]

Sex: Male [ ] Female [ ]

Marital Status: Single [ ] Married [ ] Widowed [ ] Divorced [ ]

Job Title: ________________________________

Number of years with the Company: _____
The 16 P.F. Test is highly confidential and is a restricted psychological instrument, available only to qualified individuals. Copyright is by The Institute for Personality & Ability Testing, 1602-04 Coronado Drive, Champaign, Illinois, U.S.A.

For these reasons, a copy of the 16 P.F. Test cannot be incorporated in this dissertation. However, qualified individuals may obtain a copy of the instrument from the above copyright address.
Outline of Envelopes Containing Research Materials

#1

Director of Research

Group #7

#2

Director of Research

Group #7
BIBLIOGRAPHY

Books


118


Haas, J. Eugene. Role Conception and Group Consensus. Columbus, Ohio: The Ohio State University, Bureau of Business Research, College of Commerce and Administration, Research Monograph Number 117, 1964.


121


Articles


Lorr, Maurice and Rubinstein, Lei A. "Personality Patterns of Neurotic Adults in Psychotherapy." Journal of Consulting Psychology, XX, 4; April, 1956, pp. 257-263.


