Consumers' Saving Behaviour: An Empirical Investigation of Consumers' Attitudes Towards Commercial Banking Services with Special Reference to Savings Accounts in Iraq.

By

Salim Karim Hussain

B.Sc. in Accountancy & Business Administration, Iraq, 1979.

A Thesis Submitted to the University of Sheffield, School of Management and Economic Studies for the Fulfilment of the Requirements for the Degree of Doctor of Philosophy.

University of Sheffield
The United Kingdom
1993
To My Mother

May your soul rest in peace in my troubled country.
Acknowledgements

During my studies at Sheffield School of Management and Economic Studies I was fortunate to receive valuable advice from many people.

My sincere thanks should go to Professor Arthur Meidan for accepting the opportunity of supervising my studies and for his constant encouragement, advice, comments and criticisms. In fact, without his help the completion of this thesis would have been impossible.

I would like to thank Professor Sean Holly, the Director of Research at Sheffield School of Management and Economic Studies, who encouraged me and participated in the process of supervising my studies and its completion.

I would like to thank Dr. F. A. Fretwell-Downing, Chairman of Sheffield School of Management and Economic Studies, for providing all the facilities available at the school to finish my studies.

My thanks should go to Professor Roy Wilkinson for his special help and encouragement. Also, my thanks should go to Mr. Robert Sedgwick for his kind help.

I would like to thank EM. Professor G. Clayton and Dr. C. Easingwood for their constructive comments which helped in improving this research.

In addition, I would like to thank the following people for their kind help: Dr. E. Jacobs; Dr. A. E. Tomes; and Dr. I. Moosa of Sheffield School of Management and Economic Studies. Mr. M. Savas and the late Roger Richards of the Computing Services, Sheffield University. Mrs. B. King, Voluntary worker at the British Red Cross. Mrs. D. Green of the Registration Office, Sheffield University. All the staff at Sheffield School of Management. All the staff at the Main and Crookesmoor Libraries. All the staff at the Computing Services, Sheffield University.

Finally, my thanks should go to my family, my wife and my three children for their sacrifices during the course of my studies.
Abstract

This thesis is the result of a study of consumers' saving behaviour in Iraq. It is an empirical investigation of consumers' attitudes towards commercial banking services with special reference to savings accounts in Iraq.

A number of research objectives and related hypotheses were stated to be achieved through carrying out this investigation. The main focus of the research objectives was to develop a theoretical model and an empirical method of investigating consumers' saving behaviour (decisions) in Iraq. This investigation was carried out in order to achieve the following benefits: (a) providing better understanding of consumers' banking behaviour in Iraq, as one of the less-advanced countries, where little attention has previously been paid to consumers and their needs, wants and satisfaction; (b) contributing to the literature of bank marketing in the Third World which is very limited; (c) establishing the extent to which models of consumer behaviour are applicable in investigating consumers' banking behaviour in a less-advanced country such as Iraq; (d) providing better understanding of consumers' saving decisions in Iraq, which may help banks to gain more savers and enhance the process of mobilisation of finance, and that will have positive effect on the national economy; (e) relating consumers' saving decisions to their attitudes, socio-economic, demographic and some psychographic financial characteristics; and (f) the findings of the research may encourage banks to provide better services for consumers in Iraq by providing banks with some insights about Iraqi consumers in terms of their wants, needs, desires and opinions.

The theoretical part of the research was devoted to covering the following: (a) a background review of the status of the Iraqi banking system; (b) a review of the literature related to the problem under investigation; (c) a discussion of the theories of consumer behaviour in general and consumer banking behaviour in particular; and (d) a presentation of the research methodologies of research design, data collection, sampling and the statistical methods of data analysis.

The empirical part of the research was designed according to the Faceted Design which helps in defining and selecting the most
important and relevant variables to the research problem. Also, the faceted design was of a great help in preparing the research questionnaire for this investigation which was used for the purpose of primary data collection from respondents.

Data was gathered in Iraq by questionnaires distributed to 800 respondents. Two methods of probability random sampling, area and systematic sampling, were used for the purpose of selecting a representative sample of the population.

The collected primary data consisted of attitudinal and categorical variables. In other words, the data was multivariate in type and of ordinal and nominal scales. The variables were dependent and independent in nature. Therefore, three statistical methods of data analysis were used to analyse the primary data. Factor Analysis and Two-Group Discriminant Analysis were used to analyse the attitudinal data and achieve the relevant research objectives, while Multiple Classification Analysis was used to analyse the categorical data and achieve the relevant objectives. In addition, the Kolmogorov-Smirnov Goodness-of-Fit test, the F-test and the T-test were used as statistical tests for the purpose of testing the research hypotheses.

With regard to consumers' saving behaviour (decisions) in Iraq, the findings of the empirical part of the investigation revealed, in brief, the following:

The results of Factor Analysis indicate that there are thirteen attitudinal factors which are perceived by SAVERS in Iraq as of significant importance in influencing their decisions to open savings accounts. These thirteen factors summarise the 60 attitudinal variables related to SAVERS' attitudes towards savings accounts.

The results of Two-Group Discriminant Analysis and T-test confirm that there are dissimilarities between the Iraqi consumers' attitudes towards the idea of saving and having savings accounts, if compared according to their: (1) Saving decisions; (2) Saving habits; (3) Age group; (4) Family size; (5) Income; and (6) Educational level.

The results of the Multiple Classification Analysis suggest that consumers' socio-economic and demographic characteristics have an influence on Iraqi consumers' saving decisions (hold / not hold a
bank savings account). In other words, the results of the analysis confirm that the seven consumers' socio-economic and demographic characteristics used in this investigation, taken together, have significant influence on their saving decisions. However, when the relationship between each of the seven consumers' socio-economic and demographic characteristics and consumers' saving decisions are examined separately, the findings confirm that each of them, except sex of respondents, has a significant influence on consumers' saving decisions in Iraq. Thus, the findings confirm that sex of respondent in Iraq had no significant influence on his/her saving decision, while marital status, age, family size, income, educational level and occupation of respondents were of significant importance in influencing consumers' saving decisions. The main reason for this finding can be attributed to the fact that in the Iraqi society women have a less prominent role in general, and have less financial independence in particular.

Finally, the main contributions of the present study can be summarised as follows: (a) a model for investigating consumer's banking behaviour in Iraq, as one of the underdeveloped countries, was developed, as presented in figures 4.4, 4.5, 4.6 and 5.1; (b) Facet Theory was extended to be used in bank marketing research in general, and in investigating consumer banking behaviour in Iraq, as one of the underdeveloped countries, in particular; (c) this study is the first study of consumer banking behaviour in Iraq and its model can be generalised and modified to be used in investigating consumer banking behaviour in the underdeveloped countries; and (d) in comparison with previous comparative studies this study is more comprehensive in terms of its model, methodology and findings.
# Table of Contents

<table>
<thead>
<tr>
<th>Title</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>List of Tables.</td>
<td>6</td>
</tr>
<tr>
<td>List of Figures.</td>
<td>8</td>
</tr>
<tr>
<td><strong>Chapter One: Introduction.</strong></td>
<td>9</td>
</tr>
<tr>
<td>1.1 Preface.</td>
<td>10</td>
</tr>
<tr>
<td>1.2 Statement of the Problem and Its Scope.</td>
<td>12</td>
</tr>
<tr>
<td>1.3 Research Objectives.</td>
<td>13</td>
</tr>
<tr>
<td>1.4 Research Hypotheses.</td>
<td>13</td>
</tr>
<tr>
<td>1.5 Research Plan and Organisation.</td>
<td>15</td>
</tr>
<tr>
<td><strong>Chapter Two: The Historical Developments of the Banking System in Iraq.</strong></td>
<td>20</td>
</tr>
<tr>
<td>2.1 Introduction.</td>
<td>21</td>
</tr>
<tr>
<td>2.2 The Iraqi Banking System Before Nationalisation: Structure and Problems.</td>
<td>28</td>
</tr>
<tr>
<td>2.3 Nationalisation of the Commercial banks: Reasons and Effects.</td>
<td>30</td>
</tr>
<tr>
<td>2.3.1 The Main Motives for Nationalisation of the Commercial Banks in Iraq.</td>
<td>32</td>
</tr>
<tr>
<td>2.3.2 The Effects of Nationalising the Commercial Banks in Iraq.</td>
<td>34</td>
</tr>
<tr>
<td>2.3.3 The Advantages and Disadvantages of Nationalisation of the Commercial Banks in Iraq.</td>
<td>35</td>
</tr>
<tr>
<td>2.4 The Iraqi Banking System in Present Time: Structure, Functions and Problems.</td>
<td>39</td>
</tr>
<tr>
<td>2.4.1 Structure and Functions.</td>
<td>39</td>
</tr>
<tr>
<td>2.4.2 Problems of the Nationalised Banking</td>
<td>45</td>
</tr>
</tbody>
</table>
Chapter Three: Review of Literature Related to Commercial Bank Marketing with Special Reference to the Service of Savings Accounts.

3.1 Introduction.

3.2 Commercial Banking: An Overview.

3.3 Marketing of Banking Services.

3.3.1 The Concept of Bank Marketing.

3.3.2 Development of Bank Marketing.

3.3.3 Marketing Research in Banking.

3.4 Review of Previous Marketing Research Studies Related to Consumers' Saving Behaviour.

3.5 Conclusions.

Chapter Four: Consumer Behaviour.

4.1 Introduction.

4.2 Models of Consumer Behaviour:

   The Comprehensive Models.

   4.2.1 The Howard – Sheth Model.

   4.2.2 The Howard Model.

   4.2.3 The Engel, Kollat and Blackwell Model.

   4.2.4 Comparison of the Models.

4.3 Factors Affecting Consumer Banking Behaviour.

   4.3.1 The External Factors.

   4.3.2 The Internal Factors.
<table>
<thead>
<tr>
<th>Title</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.3.3 The Consumer Buying Process.</td>
<td>114</td>
</tr>
<tr>
<td>4.4 Conclusions.</td>
<td>120</td>
</tr>
<tr>
<td>Chapter Five: The Faceted Design of the Empirical Study.</td>
<td>123</td>
</tr>
<tr>
<td>5.1 Introduction.</td>
<td>124</td>
</tr>
<tr>
<td>5.2 The Faceted Approach for the Research Design.</td>
<td>124</td>
</tr>
<tr>
<td>5.3 The Mapping Sentence of the Definition by Facets of the research Problem.</td>
<td>128</td>
</tr>
<tr>
<td>5.4 The Context of Consumers' Saving Behaviour in Iraq.</td>
<td>134</td>
</tr>
<tr>
<td>Facet D1: Consumers' Attitudes Towards Savings Accounts.</td>
<td>134</td>
</tr>
<tr>
<td>Facet D2: Bank Attributes.</td>
<td>136</td>
</tr>
<tr>
<td>Facet D3: Consumers' Financial Psychographic Characteristics.</td>
<td>139</td>
</tr>
<tr>
<td>5.5 Conclusions.</td>
<td>144</td>
</tr>
<tr>
<td>Chapter Six: Data Collection and Sampling Methods.</td>
<td>146</td>
</tr>
<tr>
<td>6.1 Introduction.</td>
<td>147</td>
</tr>
<tr>
<td>6.2 Data Measurements.</td>
<td>147</td>
</tr>
<tr>
<td>6.2.1 Measurements of Respondents Attitudes.</td>
<td>150</td>
</tr>
<tr>
<td>6.2.2 Measurements of Respondents Characteristics.</td>
<td>152</td>
</tr>
<tr>
<td>6.3 Data Collection.</td>
<td>153</td>
</tr>
<tr>
<td>6.3.1 Methods of Data Collection.</td>
<td>154</td>
</tr>
<tr>
<td>6.3.2 Development of the Questionnaire.</td>
<td>157</td>
</tr>
<tr>
<td>6.4 Sampling.</td>
<td>162</td>
</tr>
<tr>
<td>6.4.1 Methods of Sampling.</td>
<td>162</td>
</tr>
<tr>
<td>Title</td>
<td>Page No.</td>
</tr>
<tr>
<td>------------------------------------------------------------</td>
<td>----------</td>
</tr>
<tr>
<td>6.4.2 Sample Size.</td>
<td>170</td>
</tr>
<tr>
<td>6.5 Summary.</td>
<td>171</td>
</tr>
<tr>
<td>Chapter Seven: Methods of Data Analysis.</td>
<td>173</td>
</tr>
<tr>
<td>7.1 Introduction.</td>
<td>174</td>
</tr>
<tr>
<td>7.2 Factor Analysis.</td>
<td>176</td>
</tr>
<tr>
<td>7.3 Two-Group Discriminant Analysis.</td>
<td>180</td>
</tr>
<tr>
<td>7.4 Multiple Classification Analysis.</td>
<td>182</td>
</tr>
<tr>
<td>7.5 The Kolmogorov-Smirnov Goodness-of-Fit Test.</td>
<td>184</td>
</tr>
<tr>
<td>7.6 The F-Test.</td>
<td>185</td>
</tr>
<tr>
<td>7.7 The T-Test.</td>
<td>186</td>
</tr>
<tr>
<td>7.8 Summary.</td>
<td>187</td>
</tr>
<tr>
<td>Chapter Eight: Factor Analysis Findings.</td>
<td>188</td>
</tr>
<tr>
<td>8.1 Introduction.</td>
<td>189</td>
</tr>
<tr>
<td>8.2 Interpretation of Factor Analysis Findings.</td>
<td>190</td>
</tr>
<tr>
<td>8.3 Testing Research Hypothesis.</td>
<td>206</td>
</tr>
<tr>
<td>8.4 Conclusions.</td>
<td>209</td>
</tr>
<tr>
<td>Chapter Nine: Discriminant Analysis and T-Test Findings.</td>
<td>211</td>
</tr>
<tr>
<td>9.1 Introduction.</td>
<td>212</td>
</tr>
<tr>
<td>9.2 Interpretation of the Findings.</td>
<td>212</td>
</tr>
<tr>
<td>9.2.1 The Findings of Discriminant Analysis: Discriminating Between Respondents According to their Saving Decisions. (Banked with Savings Accounts vs. Non-banked).</td>
<td>212</td>
</tr>
<tr>
<td>9.2.2 The Findings of the T-Test.</td>
<td>237</td>
</tr>
<tr>
<td>9.2.2.1 Respondents' Saving Habits.</td>
<td>237</td>
</tr>
</tbody>
</table>
List of Tables

<table>
<thead>
<tr>
<th>Title of Table</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1 Number of savings accounts at commercial banks in Iraq.</td>
<td>26</td>
</tr>
<tr>
<td>2.2 Types of banks in Iraq.</td>
<td>41</td>
</tr>
<tr>
<td>2.3 Comparison between the Iraqi and the Developed Countries banking systems.</td>
<td>49</td>
</tr>
<tr>
<td>3.1 Summary of previous research publications.</td>
<td>88</td>
</tr>
<tr>
<td>5.1 The context of consumers' saving behaviour in Iraq.</td>
<td>141</td>
</tr>
<tr>
<td>6.1 Rate of response.</td>
<td>169</td>
</tr>
<tr>
<td>7.1 Justifications for using Factor Analysis.</td>
<td>178</td>
</tr>
<tr>
<td>7.2 Justifications for using Discriminant Analysis.</td>
<td>182</td>
</tr>
<tr>
<td>7.3 Justifications for using Multiple Classification Analysis.</td>
<td>184</td>
</tr>
<tr>
<td>8.1 Factor one: Customers' satisfaction.</td>
<td>194</td>
</tr>
<tr>
<td>8.2 Factor two: Advertising.</td>
<td>195</td>
</tr>
<tr>
<td>8.3 Factor three: Benefits of savings.</td>
<td>196</td>
</tr>
<tr>
<td>8.4 Factor four: Bank's image.</td>
<td>197</td>
</tr>
<tr>
<td>8.5 Factor five: Location convenience.</td>
<td>198</td>
</tr>
<tr>
<td>8.6 Factor six: Quality of transaction.</td>
<td>199</td>
</tr>
<tr>
<td>8.7 Factor seven: Building design.</td>
<td>200</td>
</tr>
<tr>
<td>8.8 Factor eight: Customers' benefit.</td>
<td>201</td>
</tr>
<tr>
<td>8.9 Factor nine: Reasons for saving.</td>
<td>202</td>
</tr>
<tr>
<td>8.10 Factor ten: Influence of relationship.</td>
<td>203</td>
</tr>
<tr>
<td>8.11 Factor eleven: Bank loyalty.</td>
<td>204</td>
</tr>
<tr>
<td>8.12 Factor twelve: Access convenience.</td>
<td>205</td>
</tr>
<tr>
<td>8.13 Factor Thirteen: Waiting time.</td>
<td>206</td>
</tr>
<tr>
<td>8.14 D-values of the Kolmogorov-Smirnov test.</td>
<td>208</td>
</tr>
</tbody>
</table>
Title of Table | Page No.
---|---
9.1 Number of cases by group (saving decisions) | 214
9.2 The canonical discriminant function (saving decisions) | 215
9.3 Standardized coefficients and group mean values (saving decisions) | 216
9.4 Summary of dissimilarities between "banked" and "non-banked" respondents | 232
9.5 Groups classification results (saving decisions) | 234
9.6 The results of t-test for respondents' saving habits | 239
9.7 The results of t-test for respondents age group | 243
9.8 The results of t-test for respondents family size | 244
9.9 The results of t-test for respondents income | 245
9.10 The results of t-test for respondents educational level | 247
10.1 The Multiple Classification Analysis results | 261
10.2 Rate of occurrence of the consumers' profile characteristics | 265
10.3 Main groups and characteristics of consumers | 289
List of Figures

Title of Figure                                            Page No.
1.1 The plan of the research.                             17
2.1 Development of the Iraqi banking system.              23
2.2 Development of savings accounts in Iraq.              27
2.3 The Iraqi financial system in present time.           40
3.1 Recent developments in bank marketing research.      66
4.1 The Howard – Sheth model.                            102
4.2 The Howard model.                                     103
4.3 The complete EKB model.                              104
4.4 Stages of consumers' saving decisions.                115
4.5 A method to investigate consumers' saving decisions.  117
4.6 A model of consumer behaviour in banking.             119
5.1 The mapping sentence for the definition by facets of consumers' saving behaviour in Iraq. 130
6.1 The sampling procedures used in this investigation.  167
7.1 Methods of data analysis.                             175
9.1 Each and all-groups histogram (saving decisions).     235
10.1 Sex of respondents.                                  268
10.2 Marital status of respondents.                       270
10.3 Age group of respondents.                            272
10.4 Family size of respondents.                          275
10.5 Income group of respondents.                         276
10.6 Educational level of respondents.                    279
10.7 Occupations of respondents.                          280
11.1 The money circulation between banks and customers.   291
CHAPTER ONE

INTRODUCTION

1.1 PREFACE.

1.2 STATEMENT OF THE PROBLEM AND ITS SCOPE.

1.3 RESEARCH OBJECTIVES.

1.4 RESEARCH HYPOTHESES.

1.5 RESEARCH PLAN AND ORGANISATION.
1.1 Preface:

A lot of work has been done to provide an understanding of consumer behaviour in matters related to goods (products), which are tangible. Relatively, less has been done to provide such an understanding for consumer behaviour in matters related to services which are intangible, especially in the developing countries. However, given the importance of the banking sector in any economy, it is not clear if the models of consumer behaviour, which are developed to deal with consumption of products (goods) and other services, are applicable in the case of banking, because banks provide distinct types of services. In addition, it is not clear if the methods of bank marketing, marketing research and models of consumers' behaviour developed in the Western Developed World are applicable in a developing country like Iraq.

Shankleman (1979) pointed out that in banking, formal marketing only really started in 1968 in Britain and even earlier in the USA. Most of the previous studies dealing with bank marketing, especially those related to consumers' attitudes, were conducted in the United States of America, where a very different banking system exists. Very few studies were found dealing with these topics in countries where a relatively small number of chartered banks dominate the market through a strong network of branches nation-wide such as in Britain, Canada, France, etc.

Earl and Rose (1976) concluded that in commercial banking, only a limited amount of careful research has been directed toward marketing of commercial banking services. Commercial banks are the dominant institutions in the financial system of most countries, for
example, they control about 40 per cent of all financial institutions transactions in the U.S.A.

Relatively fewer researches have been conducted in the less advanced countries, i.e., the Third World countries, where the situation is extremely different. Therefore, the main reasons and motivations for conducting this study can be summarized in the following:

Firstly, there is an urgent demand to provide an understanding of consumers' behaviour and their needs and wants in matters related to banking in Iraq, as one of the less-advanced countries, in order to develop the banking services and satisfy consumers.

Secondly, it is hoped that this study will contribute to the literature of studies on bank marketing, which is very limited in the Third World countries.

Thirdly, the whole purpose of this study is to secure the quality of banking services through effective marketing. That means reaching and satisfying customers' needs and wants in order to survive and provide better services.

Fourthly, one of the overall objectives of this study is to establish the extent to which models of consumer behaviour are applicable in investigating consumers' banking behaviour, especially, in one of the third world countries, i.e., Iraq.

Fifthly, the main focus of this investigation is on one of the most importance banking services, that are provided by commercial (retail) banks. That is, the service of opening savings accounts for customers.

Finally and in addition to the above, this study is an attempt to relate consumers' attitudes, socio-economic, demographic
and psychographic characteristics to their saving behaviour (decisions) in Iraq.

1.2 Statement of the Problem and its Scope:

Understanding consumers' behaviour in the banking sector is a very important factor for any bank in establishing its policies and strategies. Furthermore, consumers' needs and wants are increased because of increasing competition between banks to gain customers, changes in technology, life style and life sophistication.

The foundation of banks was on their deposit taking system. Thus, deposits or savings accounts are the most important source in financing any bank to operate in the market. However, in recent-times, commercial (retail) banks found that in order to encourage consumers to deposit their money in the bank, they should adopt a new marketing strategy, which should be more consumer-oriented than product-oriented as it used to be. Therefore, many commercial banks started to carry-out marketing research investigations in order to reach the opinions of their customers and discover their needs and wants.

Initially, most market research was based on qualitative methods. More recently, attempts have been made to establish quantified approaches to studies in bank marketing research. Thus, the examination of the subject of consumers' attitudes toward commercial banking services within the context of consumer behaviour in banking has remained limited.

Therefore, this study is an attempt to explore the relevant factors and variables which affect consumers and their attitudes toward commercial banking services with particular reference to savings accounts. The service of savings accounts is chosen because
of its importance for the commercial banking business and its wide usage by consumers. In other words, the main research problem is to define what factors and variables may affect consumers in their attitudes toward commercial banking services, and what are the methods that can be applied by the commercial banks in order to satisfy their customers and increase their share in the market, especially the savings market.

1.3 Research Objectives:

In this study the following research objectives were stated to guide the empirical part of the investigation:

1. To determine those universal attitudinal factors which are perceived by the Iraqi savers as important in their decision to open savings accounts at a commercial bank.
2. To establish the extent to which dissimilarities exist between consumers who are "banked with savings accounts vs. non-banked" in terms of the rate of importance they attach to the variables related to the service of savings accounts provided by commercial banks in Iraq.
3. To examine the relationship between Iraqi consumers' saving decisions (saving behaviour) and their profile characteristics, i.e., socio-economic and demographic characteristics such as: a. sex; b. marital status; c. age; d. family size; e. income; f. educational level; and g. occupation.

1.4 Research Hypotheses:

Churchill (1988) defines hypothesis as being a statement that specifies how two or more measurable variables are related. Also, it
has been defined by Moutinho (1982) as an assumption, which on the basis of some experimental findings, may be rejected or allowed to stand. However, in this study three assumptions (hypotheses) were made which are justified on the following:

a. The literature analysis, as mentioned in chapter three, showed that comparative assumptions were made to investigate consumers of banking services in other environments (countries). Therefore, it was thought that such hypotheses can be applied to investigate consumers of banking services in Iraq.

b. Consumers, in general, behave differently according to the rate of importance they may attach to a number of variables which may influence their behaviour. As it is known, different segments of consumers attach different rates of importance to one or more variables related to their behaviour. For example, consumers who are holders of savings accounts with banks may consider the rate of interest on their savings to be more important than non-holders. In other words, there must be reasons for the difference in the behaviour between holders of savings accounts and non-holders.

c. This study's theoretical model, as presented in figures 4.4, 4.5, 4.6 and 5.1, indicated that there are variables that may be able to explain the difference in consumers' saving behaviour in Iraq.

d. The pilot study carried out before embarking on this investigation indicated that there are differences between different segments of Iraqi consumers in terms of their
wants, needs, desires, attitudes, socio-economic and demographic characteristics.

Therefore, the following research hypotheses were formulated to guide the empirical part of this research.

Hypothesis (A): There are significant similarities between respondents who are "banked with savings accounts" in terms of their attitudes towards the service of savings accounts provided by commercial banks in Iraq.

Hypothesis (B): There are significant dissimilarities between respondents who are "banked with savings accounts" and those "non-banked" in terms of their attitudes towards the service of savings accounts provided by commercial banks in Iraq.

Hypothesis (C): Consumers' profile characteristics, i.e., the seven socio-economic and demographic characteristics taken together or separately, have a significant influence on consumers' saving decisions (hold / not hold a savings account) in Iraq.

1.5 Research Plan and Organisation:

The plan of this investigation was based on achieving the study's chief objective of developing a method of investigating consumers' saving behaviour (decisions) in Iraq. The plan of the research, as shown in figure 1.1, was divided into four main stages, these are: The first stage was devoted to define the research problem, objectives, and hypotheses. The second stage was designed to investigate the following:

(a) the concepts of bank marketing and bank marketing research; (b) the relevant previous bank marketing research
studies; (c) the background of the Iraqi banking system, because it is the case study in this investigation; and (d) the relevant models of consumer behaviour.

The third stage dealt with the research methodology of data collection, sampling, design and statistical analyses. The fourth was devoted to the reporting of the empirical findings of the research and their implications. Also, it was used to report how the research plan had participated in achieving the chief research objective mentioned above, both theoretically and empirically. The following is a brief description of the research organisation, chapter by chapter:

The purpose of this first chapter is to briefly highlight the study topic area, identify the research problem and its scope, state the research objectives, and specify the research hypotheses relevant to the objectives.

Chapter two is an attempt to provide wider background to the study in terms of the importance of this topic for the Iraqi banking system, which is the field of the investigation. Also, the chapter was an attempt to describe the historical developments of the Iraqi banking system, and its present structure with reference to its functions and drawbacks.
Chapter three is a review of the relevant literature in the field and aims to acquaint the reader with existing knowledge on the subject, together with a discussion of the present study in relation to the current literature.
Chapter four contains a description of consumer buying behaviour models with special reference to their application in banking and consumers' banking behaviour. This approach was adopted because the investigation specifically concentrates on consumers' saving behaviour.

Chapter five describes the research design of the investigation. The research design was based on employing facet design in order to present systematically the universe of the content of research area, underline the relations between the variables used in the investigation, and produce a mapping sentence of the whole universe of context under investigation.

Chapter six discusses in detail, data requirements, questionnaire design, the process of sampling the population of respondents and other methods of data collection used to gather the required data for the research.

Chapter seven describes the research methodology of the analysis. It contains a description of the analytical techniques used in this study which consisted of: Factor Analysis, Discriminant Analysis, and Multiple Classification Analysis (MCA). Also, a description of the statistical tests used to test research hypotheses such as: Kolmogorov-Smirnov One-sample Goodness-of-Fit Test, F-Test, T-Test and other statistical tests used was provided in this chapter.

Chapters eight, nine, and ten were devoted to reporting the research findings for each research objective and its hypothesis(es). Therefore, chapter eight reports the findings of Factor Analysis, which was used to determine those attitudinal factors which are perceived by savers as important in their decision to open savings accounts at a commercial bank. Kolmogorov-Smirnov
One-sample Goodness-of-Fit Test was used for testing the relevant hypotheses to this chapter.

Chapter nine reports the findings of Discriminant Analysis, which was used to achieve the objective of establishing the extent to which differences exist between consumers, who are banked with savings accounts and non-banked, in terms of the difference in the rate of importance they attached to the variables related to the service of savings accounts provided by commercial banks in Iraq, savers and non-savers in terms of their attitudes towards the variables under investigation. Also, it includes the findings of the T-Test regarding establishing the differences between respondents' attitudes according to their: (a) Age; (b) Family size; (c) Income level; (d) Educational level; and (e) Saving habits.

Chapter ten reports the findings of Multiple Classification Analysis (MCA), which was used to achieve the objective of examining the relationship between consumers' saving decisions (saving behaviour) and consumers' profile characteristics (socio-economic and demographic characteristics of consumers) such as: income, qualification, occupation, sex, age, marital status, and family size. The programme of (MCA) provides the basic statistics from which F-test easily calculated to test the hypotheses relevant to this objective.

Finally, chapter eleven was devoted to report the research conclusions, limitations, contributions in terms of theoretical and practical aspects, and recommendations regarding further research in the area of bank marketing.
CHAPTER TWO

THE HISTORICAL DEVELOPMENTS OF THE BANKING SYSTEM IN IRAQ

2.1 INTRODUCTION.

2.2 THE IRAQI BANKING SYSTEM BEFORE NATIONALISATION: STRUCTURE AND PROBLEMS.

2.3 NATIONALISATION OF THE COMMERCIAL BANKS: REASONS AND EFFECTS.
   2.3.1 THE MAIN MOTIVES FOR NATIONALISATION OF THE COMMERCIAL BANKS IN IRAQ.
   2.3.2 THE EFFECTS OF NATIONALISING THE COMMERCIAL BANKS IN IRAQ.
   2.3.3 THE ADVANTAGES AND DISADVANTAGES OF NATIONALISATION OF THE COMMERCIAL BANKS IN IRAQ.

2.4 THE IRAQI BANKING SYSTEM IN RECENT-TIMES: STRUCTURE, FUNCTIONS, AND PROBLEMS.
   2.4.1 STRUCTURE AND FUNCTIONS.
   2.4.2 PROBLEMS OF THE NATIONALISED BANKING SYSTEM.

2.5 CONCLUSIONS.
2.1 INTRODUCTION:

This chapter will review the historical development and structure of the banking system in Iraq. This review will make special reference to the main problems of a totally state-owned banking system, and how this type of ownership has affected the performance of banks and the satisfaction of customers. Also, this review will help to provide some sort of background for the investigation of consumers' attitudes toward commercial banking services in Iraq, with particular reference to the service of savings accounts.

Providing such a review will help the investigation in later stages, especially in the process of interpreting research findings regarding banking consumers and their banking behaviour in Iraq. Also, it should be mentioned here that some of the contents of this chapter will be descriptive. In fact, the reason for that is to provide the reader with some insights about the state of the Iraqi banking system. Thus, because it was found that information about the Iraqi banking system available to the reader in the English language are very rare, and, as is clear, the empirical part of the present study is about consumers of banking services in Iraq. Therefore, readers should be given sufficient information about the state of the Iraqi banking system in terms of its structure, development, and problems. However, it should be mentioned here also that some of the contents of this chapter are based on previous researches carried out by the researcher [see S. Hussain (1982) and (1988)].

The origin of the commercial banking in Iraq can be traced to 1891 when the Ottoman Bank opened a branch, mainly because Iraq at the time was part of the Ottoman Empire. After that, many other
foreign banks opened branches in Iraq. Development of domestic commercial banking in Iraq, however, has a relatively recent history. In fact, it was not until 1941 that the first national commercial bank (called the Rafidain Bank) was established. The pace of banking activity and bank holdings expanded especially after the 1950s, mainly because of economic developments. However, the most important event which significantly affected the commercial banking system in Iraq was the government's programme of nationalisation of private and foreign commercial banks in 1964.

The nationalisation was followed by a number of mergers between nationalised commercial banks until 1974, when the state-owned Rafidain Bank became the only commercial bank in the country, providing all the commercial banking services.

In 1987, the government acknowledged that having only one commercial bank led to a lack of competition, poor performance, and consumer dissatisfaction within the commercial banking system. This unacceptable situation had led to a decline in the quality of commercial banking services and to the consumer having no choice but to deal with this bank whatever the conditions of the services.

Therefore, the government decided to establish another state-owned commercial bank, called Al-Rasheed Bank, to provide commercial banking services for consumers and to create some sort of competitive environment between the two commercial banks.

Figure 2.1 explains the development of the Iraqi banking system before and after nationalisation in terms of the number of banks. Figure 2.1 confirms that before nationalisation the number of banks had increased from one in 1891 to 17 at the end of 1963. After nationalisation, which occurred in 1964, the number of banks
FIGURE 2.1: DEVELOPMENT OF THE IRAQI BANKING SYSTEM

NO. OF BANKS

YEARS FROM 1891 - 1991

BANKS
decreased from 17 to only 6 in 1991 (see also figure 2.3, the Iraqi banking system as it was in 1991).

In fact, in Iraq, as is the case in many developing countries, in late 1950s and throughout the 1960s and 1970s the notion of nationalisation dominated the economic strategies of most developing countries. Ramanadham (1984) indicated that large-scale nationalisations have been carried out in countries like Zambia, Tanzania, Somalia, Ethiopia, Sudan, Egypt, Iraq, Syria, Pakistan and Bangladesh on some form of socialist ground. Thus, Iraq, as one of the developing countries, practiced the same concept of nationalisation adopted by many developing countries at that time, because nationalisation for them provided the means to escape from foreign economic domination. Also, nationalisation provided them with spiritual forces for national identification. In most developing countries, such as those mentioned above, the banking system was the first in their list of nationalisation, as was the case in Iraq, where the decision was taken to nationalise banks in Iraq in 1964. Therefore, it can be said that the Iraqi banking system shares the same characteristics of most banking systems of the developing countries in terms of being state-owned and centrally controlled by the central government.

However, throughout the 1980s many developing countries started the process of revising their nationalisation policies and even carrying out some privatisation programmes which are expected to expand and influence most developing countries in the 1990s including Iraq.

In the savings market, most banks in Iraq, accept deposits. Therefore, the competition for savings is high and every bank tries to increase its share in the savings market. In addition, the
National Post Office Enterprise provides an alternative source of savings accounts through a network of Savings Funds. However, most savers prefer to deposit their savings at the commercial banks for the following reasons: (a) Commercial banks have more branches than other deposit-taker institutions (for example, the Rafidain Bank has about 250 branches nationwide); and (b) Commercial banks provide a wider range of other banking services than any other financial institutions including insurance companies.

The focus of this study will be on commercial banking with particular reference to savings. Therefore, this study will attempt to highlight the major factors and variables which have affected consumers' attitudes toward savings with particular reference to the role of commercial banks in Iraq in providing this type of banking services.

In addition, the importance of this study for the commercial banks in Iraq rests on the fact that savings accounts is the banking service most used by the general public in Iraq. This is so for a number of reasons:

1. Savers are a large segment of banking savings services users in Iraq. Savers are the kind of bank customers who wish to keep their surplus of income in a safe and secure place, and gain some return on it. Table 2.1 and figure 2.2 show the development in the size of savings accounts in Iraq in terms of number of accounts holders and balances for a number of years.

2. The service of checking accounts in Iraq is restricted to companies and businessmen. Checking accounts are not available to other segments of consumers because of some limitations on their use introduced by Iraqi Commercial Law, and practiced by the Iraqi commercial banks.
3. Although the savers have money which they are ready to invest (save), in Iraq, most such customers do not like to be engaged in the sophistication of banking services unless they need it. In fact, this is the nature of customers in most less-developed countries, where banking services are seen by people as something difficult to deal with, and they prefer dealing in cash.

Table (2.1): Number of Savings Accounts and its total balances at the Commercial Banks in Iraq.

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Savings (I. D.)</th>
<th>Number of Savings Accounts</th>
<th>Average Balance per Account (I. D.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>64,300,000</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>1971</td>
<td>73,700,000</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>1972</td>
<td>84,000,000</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>1973</td>
<td>104,300,000</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>1974</td>
<td>134,800,000</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>1975</td>
<td>176,700,000</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>1976</td>
<td>236,700,000</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>1977</td>
<td>281,200,000</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>1978</td>
<td>364,600,000</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>1979</td>
<td>428,851,000</td>
<td>407,053</td>
<td>1,054</td>
</tr>
<tr>
<td>1980</td>
<td>522,789,000</td>
<td>436,949</td>
<td>1,196</td>
</tr>
<tr>
<td>1981</td>
<td>837,387,000</td>
<td>504,604</td>
<td>1,659</td>
</tr>
<tr>
<td>1982</td>
<td>1,024,629,000</td>
<td>507,683</td>
<td>2,018</td>
</tr>
<tr>
<td>1983</td>
<td>1,180,225,000</td>
<td>539,947</td>
<td>2,186</td>
</tr>
<tr>
<td>1984</td>
<td>1,490,304,000</td>
<td>566,323</td>
<td>2,632</td>
</tr>
<tr>
<td>1985</td>
<td>1,760,080,000</td>
<td>559,162</td>
<td>3,148</td>
</tr>
<tr>
<td>1986</td>
<td>2,006,318,000</td>
<td>558,905</td>
<td>3,590</td>
</tr>
<tr>
<td>1987</td>
<td>2,417,761,000</td>
<td>591,258</td>
<td>4,089</td>
</tr>
<tr>
<td>1988</td>
<td>2,975,953,000</td>
<td>653,285</td>
<td>4,555</td>
</tr>
</tbody>
</table>

1. One Iraqi Dinar (I. D.) equal to about £2.00 (This is the official rate of exchange as it was in 1991).

2. Balances are at the end of the financial period (31 December) of each year.

Figure 2.2: Development of Savings Accounts in Iraq.

Average balance per account

Years

Thousand I. D.
2.2 THE IRAQI BANKING SYSTEM BEFORE NATIONALISATION:

STRUCTURE AND PROBLEMS.

The banking system in Iraq has developed gradually since the establishment of the first commercial bank in 1891. Its structure and functions have been directly affected by the political, economic and social changes which have affected Iraq as a developing country.

At the time of establishment of the first commercial bank in Iraq, and until the end of the First World War, Iraq was a colony of the Ottoman Empire. After the war, Iraq became a British protectorate. Until independence in 1921, political unrest affected all the economic sectors in Iraq. However, the effect on the banking sector was greater than other sectors because, as is known, investors in financial projects such as banks do not want to invest in countries suffering instability. The political situation caused a slump in the economy, which badly affected the desire of the domestic private sector to invest in any economic sector, especially in establishing banks. Meanwhile, the government at that time did not have enough resources to do so.

This situation led Iraq to remain as a less-developed country with no economic centrally determined plans, policies or strategies. All economic activities tended to depend on the decisions of individuals or foreign or domestic companies to invest in Iraq or not.

One important part of any economy is its financial system, especially central and commercial banking, which in Iraq did not develop until the 1960s, and that affected the Iraqi economy deeply.

The late development of commercial banking in Iraq was mirrored by the absence of a central bank until after independence.
According to the Central Bank of Iraq (1972), there was no central banking organisation in Iraq because Iraq had been a British protectorate. The desire to establish a central bank started after the establishment of the Iraqi government in 1921.

However, there were attempts to issue a national currency to be used instead of the Indian Rupee. For example, Article 108 of the Iraqi Constitution in 1924 referred to the need to issue a national currency. In 1930, the government established a Currency Board (Committee) with its main office in London and decided to issue Iraqi currency based on the British Pound.

The National Bank of Iraq was established according to Act 43 of 1947, with capital of 5 million Iraqi Dinar. The duties of the Currency Board (Committee) were then transferred to the new bank. The National Bank of Iraq acted as a central bank for the Iraqi government, and its success played an important role in developing the central banking system in Iraq.

In order to develop central banking in Iraq, the Central Bank of Iraq was established in place of the National Bank of Iraq according to Act 72 of 1956. Its capital increased to 15 million Iraqi Dinar, with reserves of 30 million Iraqi Dinar. The Act of 1956 further defined the main aims and duties of the bank as follows:

a. Issue and manage the currency;

b. Ensure the stability of the national currency;

c. Play an important role in the banking credit status;

d. Act as the bank of the government and the bank of the banks;

e. Organise foreign payments with foreign central banks;
f. Provide other central banking services for the economy.

However, the role of the central bank of Iraq has been re-defined through various legal amendments which will be discussed later in this chapter.

The status of the commercial banking and other financial institutions before nationalisation was characterised as ineffective. Many foreign commercial banks opened branches in Iraq after 1891, but concentrated on financing only commercial activities. At that time, commerce was an active part in the Iraqi economy, mainly because Iraq depended heavily on importing her needs for goods and other services from other countries. Little foreign banking assistance was given to non-commercial sectors such as industry, agriculture and construction.

Furthermore, these foreign commercial banks concentrated their efforts on maximizing their profits and stabilising their liquidity. On the other hand, the government had no financial institution to control and supervise their activities at that time. However, in 1947 when the National Bank of Iraq was established, it was given a limited authority to control foreign and national banks activities.

2.3 Nationalisation of the Commercial Banks: Reasons and Effects.

The government's attempt to establish a national banking system before nationalisation can be summarised as follows:

The first step was to establish a national central monetary authority responsible for controlling foreign currencies and banking credit in the country, represented by the central bank. That was
achieved by the establishment of the National Bank in 1947, which then changed to become the Central Bank of Iraq in 1956.

The second step was to create some type of re-distribution of banking credit in order to finance the industrial, agricultural, and construction sectors as well as the commercial sector. Commerce had been over-financed by the commercial banks while the other sectors had found difficulty in obtaining sufficient banking credit. In fact, this step was achieved in the 1950s by the establishment of a number of specialist banks to assist other economic sectors such as the Industrial bank, the Agricultural bank, and the Building bank.

Finally, the third step was the attempt to change the ownership of the foreign banks to the public and/or the domestic private sector which was carried out throughout the 1950s and 1960s.

Nevertheless, these attempts failed to achieve the desired shifts in Iraqi banking. Moreover, the fragmented nature of the banking system went against the notion, then fashionable among many less-developed countries, that it was beneficial to give central direction to the economy and to nationalise banking. The Iraqi government took the decision of bank nationalisation in 1964. According to Act 100 in 1964, the ownership of all non-state-owned commercial banks (foreign, Arabic and domestic private) was transferred to the Iraqi government.

The nationalisation of the commercial banks in Iraq required changes in the banking system in terms of structure and functions. For example, item 5 of the same Act provided for the establishment of a Public Corporation for Banks, which became the head office of all the nationalised banks. That was followed by a number of mergers between banks until the banking system developed into its present arrangement (see figure 2.3).
2.3.1 The main motives for the nationalisation of the commercial banks in Iraq:

Khalaf (1977) reports that F. Al-Kaysee, known as the architect of the nationalisation decision, summarised the main motives for the nationalisation of the commercial banks in Iraq as follows:

"It has become clear that the resources of the private commercial banks are not used in a suitable way to satisfy the needs of the economic development process in the country. And, the owners of the foreign capital invest it in the areas which provide profits for them without any care for the country's needs. Furthermore, most of the private commercial banks attempted to gain maximum and fast profits, without caring for other factors in the economy. Such a banking strategy was very risky for the banks and forced some of them out of the market, affecting the financial system in general. In addition, there appeared new economic strata which monopolised the banks, insurance companies and other industries, with good ability to interfere in the national economic and social matters in order to gain maximum profits".

Al-Kaysee (1967) added the following additional reasons for the nationalisation of commercial banks:

1. The commercial banks' negligence of the requirements of economic development process when they invested their money.

2. The domination of the foreign capital over the commercial banks, and its efforts to direct the investments toward very profitable sectors only.
3. The highly competitive situation between the commercial banks had led them to maximise their profits without caring for banking conventions and principles, which created a very risky environment and as a result weakened some of them.

4. The concentration of wealth in the hands of some segments of society which dominated over banks, insurance companies, industrial and agriculture sectors. Moreover, this concentration of wealth produced a very strong social class which attempted to influence political and economic policies and to direct them toward their wishes. This led to unequal distribution of the national income.

Al-Shamaa (1978) mentioned other aspects, which he described as some technical reasons, for the nationalisation of the commercial banks in Iraq. These included the following:

(a) In first place, nationalisation attempted to organise banking facilities and services, and put them under good control and better management system;

(b) It also increased the control of the Central Bank of Iraq over the banking system activities, especially those related to banking credit and foreign currencies;

(c) Nationalisation was also an attempt to avoid the situation whereby private banks concentrated on providing banking facilities for only some segments of private businesses;

(d) Another reason for nationalisation was due to the fact that some of the commercial banks issued false annual accounts showing losses in order to hide their true profits and expropriate them; and
(e) Another important technical motive for nationalisation was the unequal distribution of banking services and the concentration of private banks branches only in main cities, which disadvantaged other parts of the country.

All the above-mentioned reasons played an important role in increasing the demand for nationalisation at that time, and led the government decision in 1964.

2.3.2 The effects of nationalising the commercial banks in Iraq:

Nationalisation of the commercial banks in Iraq affected the national economy as well as the banking system itself. The most important effects have been described by Khalaf (1977) as follows:

Nationalisation of the commercial banks meant transferring ownership from the private to the public sector. The public sector, he states, is the one which must be responsible for economic developments, especially in a developing country like Iraq. The change will facilitate the participation of the banking system more effectively in these developments. Moreover, he claims, private banks can not provide such an opportunity for the national economy, especially in the cases of less-developed and developing countries.

The transformation of the commercial banks to state-owned banks will change the banking policies of these banks. In other words, the nationalised banks will pay less attention to maximising their profits and more attention to financing the economic requirements. Also, they will create some kind of co-operative relations between different financial and banking institutions in place of a profit seeking competitive situation.

Furthermore, nationalisation can ease the control system of the central bank over the banking system by ensuring that all banks
are subordinated to the central bank. Also, nationalisation will change the relationship between the State and the banking system by making all banks state-owned organisations, which should be complemented with government plans.

Another important effect of nationalisation of commercial banks related to money and its movement within the national economy. Nationalisation of the commercial banks in Iraq put the control of all such banking firmly in the hand of the government and other national institutions.

This type of system means that all the national savings (private and public) now accumulated in the nationalised banks. Then, the state-owned banks can re-direct these savings by providing banking credit for specific sectors in the economy, as required by the national central development plans. Also, this sort of system provided the government with a good chance to benefit from the national savings to the full, in order to finance projects which require a huge amount of money.

2.3.3 The Advantages and Disadvantages of Nationalisation of Commercial Banks in Iraq:

In addition to the motivations of nationalisation discussed earlier in this chapter, the move achieved some advantages for both the banks and consumers, as well as the government. However, the main advantages provided by the nationalisation can be summarised in the following:

1. For the central government, the nationalisation of commercial banks helped in increasing its control on the activities of the commercial banks. Also, it helped to give the government access to additional financial resources,
and redirected them towards centrally planned economic activities.

2. For the banks and their managements, nationalisation led to a market environment that can be characterised in the following: (a) less competition; (b) more opportunities in the market; and (c) in fact, easy profit. Such an environment pleased the top managements of the nationalised banks, because their only measurable indicator of success was in terms of profit.

3. For consumers in general, the first years after nationalisation can be described as good for consumers of banking services in Iraq. In fact, the obvious reason for that was that the newly nationalised banks had expanded their roles by providing financial assistance, i.e., loans and other banking facilities, to wider segments of consumers. Before nationalisation commercial banks had concentrated their efforts on assisting some wealthy consumers and businessmen, especially when it came to providing banking credit. However, after nationalisation banking credit had been given to wider segments of bank customers eligible to get credit according to bank regulations and criteria.

However, a nationalised banking system (i.e., state-owned banks) tends to suffer from a number of disadvantages, and the Iraqi experiment is no exception. Thus, the idea of a state-owned bank has elements of a major contradiction between the personal service expected from a bank and impersonal service expected from a government institution. A bank is seen as distinct and different type of institution mainly for the following reasons:
(a) It provides financial services, and services, as is known, are intangible;
(b) The personal relationship between staff and customers is very important in the case of banks; and
(c) Consumers want respect, better services, and satisfaction. In fact, real experiments, such as the Iraqi experiment, proved that state-owned organisations, especially in terms of their employees, are insufficiently concerned about consumers and their perceptions.

The problem is illustrated by the following example. An employee at a state-owned bank tends to think he/she is only a civil servant, and his/her salary is equal to the salaries of other civil servants working in other government departments. Then, the employee asks, why should he/she be more concerned about consumers than other civil servants working, for example, at the Birth and Death Registration Office?

In other words, the nationalisation of commercial banks in Iraq created a situation described in the following:

(a) Consumers come to the bank because it is the only one in the market: in Iraq from 1974 until 1989 there was only one state-owned commercial bank;
(b) Bank personnel tend to minimise their concern for customers and their job since they think they are public employees (civil servants), their salary does not differ whatever their performance, and their job is necessary; and
(c) Banks' top managements face no problems in regard to profits or competition because their success in the market, after all, is guaranteed.
Such a situation led to deterioration in terms of the banks' efficiency, the quality of the banking services, and the bank-customer relationship. In the eyes of both consumers and banks' employees, banks became indistinguishable from any other government offices such as, for example, a property registration office.

A second disadvantage is the lack of competition. In Iraq, after bank nationalisation, some government decisions led to a number of mergers between the nationalised banks. These mergers led to a reduction in the number of banks, from 17 before nationalisation to only six in 1991 (see figure 2.1). This meant that in 1991 only two commercial (retail) banks operated in Iraq and both were state-owned. Therefore, competition between banks has been reduced to its minimal level. And it is known in the developed world, competition in banking is the key element to achieve effective, better, developed, and satisfactory banking services.

In addition to the above, nationalisation and merger of the commercial banks created what is called the bank concentration problem. In other words, one large bank in the country had a very large number of customers, a very large number of employees, and huge amounts of bank transactions to process each day. Adding to that, communications between the bank's headquarter and its branches are difficult because advanced communication technology was not employed properly.

Finally, for the central government, in spite of the huge financial advantages it gained from a nationalised banking system, it found that the task of controlling a nationalised banking system is a difficult, if not on occasion an impossible task. In addition, the government, as the body responsible in any country for the country's affairs, found that:
Firstly, bank personnel are unhappy about their salaries and wages. Thus, they want the government to treat them distinctly in terms of payment, i.e., they want to be paid in line with the distinction of their job. Because, the government can not pay different salaries and wages for public employees in different departments without severe objections from the others, the performance of banks' employees reduced dramatically.

Secondly, consumers reflected a great dissatisfaction with the quality of banking services, and their treatment by the bank staff.

Finally, a nationalised and highly concentrated banking system had created managerial difficulties for the government in terms of controlling and supervising the bank's management, staff, and activities.

2.4 The Iraqi Banking System in Recent-Times:
Structure, Functions, and Problems.

2.4.1 Structure and Functions:

During the past three decades, the government has made many reforms of the banking system in terms of its structure and functions. These reforms led to re-organisation of the system until it became as it is in recent-times.

Figure 2.3 shows the structure of the Iraqi banking system in 1991, after the reorganisation of the system. Table 2.2 describes the main types of banks in Iraq in terms of their functions, types of customers, and types of banking activities.
Figure 2.3: The Iraqi Banking System in Present Times (As it was in 1991).

Source: Prepared by the researcher according to some publications of the Ministry of Finance in Iraq.
Table 2.2: Types of Banks and Their Characteristics in Iraq.

<table>
<thead>
<tr>
<th>Bank</th>
<th>Function</th>
<th>Types of Customers</th>
<th>Types of bank activities</th>
</tr>
</thead>
</table>
| The Central Bank of Iraq            | central banking                | 1. government.  
2. banks.  
3. other financial institutions.  
4. foreign banks.  
5. other consumers.               | 1. issuing and managing the currency.  
2. controlling and holding foreign currencies.  
3. controlling and supervising banks.  
4. act as the bank of the government. |
| The Rafidain Bank and Al-Rasheed Bank | commercial banking            | 1. companies.  
2. businessmen.  
3. individuals.  
4. foreign banks.               | 1. accepting deposits.  
2. opening banking.  
3. lending money to customers.  
4. providing all types of retail banking.  
5. investing in projects.        |
| The Agricultural Bank               | providing banking services for the agricultural sector | 1. farmers.  
2. farming companies.  
3. other banks.                | 1. lending farmers and farming companies.  
2. investing in farming projects.  
3. accepting deposits.           |
| The Industrial Bank                 | providing banking services for the industrial sector | 1. industrial companies.  
2. individuals.  
3. other banks.                | 1. lending industrial projects.  
2. investing in industrial projects  
3. accepting deposits.          |
| The Building Bank                   | providing banking services for the building sector | 1. individuals.  
2. building companies, and societies.  
3. other banks.                | 1. lending companies, individuals, and building societies.  
2. investing in building projects.  
3. accepting deposits.            |

As shown in figure 2.3 and table 2.2, the Iraqi Banking System in recent-times consists of the following banks and other financial institutions:
Central Banking:

The central banking services provided by the Central Bank of Iraq, which is the first bank for the government and through which the government practice its monetary and banking credit policies. The bank has the following main functions according to Act 64, 1964:

a. issuing and managing the Iraqi Currency;
b. managing the national reserve of gold and foreign currencies;
c. shaping foreign exchange policy and controlling foreign currencies;
d. organising and planning banking credit and controlling all the banks and other financial mediation institutions;
e. participating in solving monetary and economical crises; and
f. participating effectively in economic developments by providing the financial needs for such developments.

Commercial Banking:

Currently there are only two commercial banks in Iraq, both state-owned. The first bank, called Al-Rafidain Bank, was established in 1941 and has about 250 branches nationwide; the second, called Al-Rasheed Bank, is newly established (1987) and has about 150 branches nationwide. Both banks provide all the commercial banking services required for different economic sectors in terms of ownership (public, mixed, and private). Their functions are identical, and can be summarised according to the government's Banking Acts and Regulations as follows:

a. acceptance of monetary deposits and opening of banking accounts for its customers (personal and business);
b. lending to its customers by providing banking facilities for them and any other types of banking loans;
c. investing its resources in different types of investments available to the bank;
d. borrowing money from other financial institutions; and
e. providing all other types of commercial banking services for its customers.

The Specialist Banks:

There are three specialist banks in Iraq, providing different types of banking services for different economic sectors. They are as follows:

The Co-operative Agricultural Bank:

This bank is state-owned and provides banking credit and services for the agricultural sector. The main functions of the banks are as follows:

a. providing monetary loans for the co-operative peasants' societies and state farming organisations;
b. providing loans for farmers and other farming companies for several purposes to facilitate their farming activities;
c. investing money and participating in farming companies with an aim to develop the agricultural sector; and
d. providing any other banking services for the agricultural sector.

The Industrial Bank:

This bank is state-owned and provides banking credit and services for the industrial sector. The main functions of the banks are as follows:
a. providing loans for establishing new industrial projects and for expanding existing ones, in order to develop the industrial sector;
b. investing and participating in private, public and mixed industrial projects;
c. providing banking services for industrial projects; and
d. acting as supervisor and consultant for industrial projects.

The Building Bank:

This bank is state-owned also and provides banking credit and services for the construction sector. The main functions of the bank are as follows:

a. lending to the general public in order to build houses, flats and other types of buildings;
b. lending to co-operative societies to build houses for its members; and
c. lending to the private sector to build such tourist facilities as hotels, restaurants, camps, etc.

Other Financial Institutions:

In addition to the previously mentioned banks, certain other financial institutions provide some types of financial and banking services. These institutions are as follows:

The Insurance Companies:

There are some companies which are state-owned and provide insurance services for the public and businesses such as:

- The Life Insurance Company.
- The Iraqi Company for Re-Insurance.
- The Iraqi National Insurance Company.
The Pension Fund and Social Security:

This fund is state-owned as a government department which provides services for pensioners after their retirement, such as by paying their monthly salaries.

The Post-Office Savings Fund:

This fund is state-owned as part of the Post-Office Enterprise and accepts savings from the general public by opening savings accounts for them. It has a nationwide network of branches.

The Co-operative Fund:

This state-owned fund provides the co-operative societies with loans and other banking services.

2.4.2 Problems of the Nationalised Banking System:

Nationalisation of the commercial banks in Iraq provided several advantages for the Iraqi economy, especially because Iraq is a developing country in which the public sector consists of a high per cent of its structure (about 98% in 1975).

Furthermore, the Iraqi economy was subject to a difficult period of economic transitions, especially after 1972 when Iraq nationalised its oil industry and the oil prices increased sharply in 1974. In such an economic situation, the banking system should play an important role in organising the financial aspects of the economic and social changes. However, the Iraqi banking system in its present structure failed to do so in terms of providing all the financial needs for different economic sectors, and it was discovered that it was not able to handle the sharp increase in the number of banking transactions and providing the necessary banking services.

In summary, the present banking system in Iraq suffers from the following main problems:
Banking Concentration Problem:

The problem of banking concentration is an important factor which affected the performance of the different banks within the system in Iraq. After the nationalisation of the commercial banks in Iraq in 1964, there were a number of nationalised commercial banks, but soon after that, these banks were merged into only one commercial bank, called the "Rafidain Bank". This bank provided banking services for many years as the sole commercial bank, but its job became very difficult, especially after 1974, because of the rapid growth in demand for banking credit and services, and only one commercial bank with one headquarter could not do it all. Therefore, another state-owned commercial bank, called Al-Rasheed Bank, was established in 1987. However, this did little to help, and the problem of banking concentration still overshadows commercial banking in Iraq.

The same pattern emerges for other banking institutions. Currently there is only one agricultural bank, one industrial bank, one building bank, and one of each of other financial institutions. These, too, are unable to satisfy the increasing demand for banking services.

Lack of competition:

The Iraqi banking system consists mainly of one bank for each economic sector. This has led to a banking market without any sort of competition, no choices for consumers, and low efficiency. It is well known that at the heart of banking is competition for customers. The means to win them is to provide better and competitive services in many terms. Also, banking is the job of creating money and opportunities, gaining customers and providing the best services for them, and it requires distinct management and
staff to achieve that. Such requirements can be satisfied only under a high level of competition.

Managerial Problems:

Because the nationalised banks are state-owned, many of their staff feel that they are working in enterprises which are similar to any other public department, and that their job and performance should be regulated by this fact. This has made bank management and staff forget the proper role of banks and their personnel. As a result of that, nationalised banks suffer from too much regulation, poor performance, and low consumer satisfaction. In order to make them more effective, they should be freed from unnecessary regulations and should be treated as independent commercial organisations.

Lack of Marketing Strategies:

The lack of marketing strategy is another type of managerial difficulty, but it is of special importance in the case of banking. All commercial banks and other financial institutions operating in Iraq do not have acceptable use of marketing strategies and methods to market their services. Even the use of advertising is still very poor: only a few advertising campaigns have appeared in some national newspapers or magazines to advertise for existing services. Furthermore, not one market research investigation has been carried out by any of the operating banks to investigate any of the marketing problems they face. Therefore, it is appropriate to mention that this study is the first of its type to be undertaken about one aspect of the banking services in Iraq.
That no market research has been undertaken was because: (a) Banks are state-owned, and therefore their management and staff behave like civil servants doing departmental jobs. (b) The instability of the banking system in terms of its structure, as mentioned in this chapter. (c) Lack of specialist staff required to implement and carry out marketing techniques. (d) Until very recently, most consumers in Iraq usually dealt with banks only when their needs for some financial assistance were very desperate. Otherwise, they did not like to engage themselves in any banking activities. This type of situation is called by bankers in Iraq "The Lack of Banking Education", and the banks are responsible for this because their poor marketing strategies participated in creating it.

Table 2.3 explains the main differences between the Iraqi banking system and the banking systems of other developed countries in terms of some important bank characteristics.
Table 2.3: Comparison Between the Iraqi and the Developed Countries Banking Systems.

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Developed Countries</th>
<th>Iraq</th>
<th>Implications</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Ownership</td>
<td>mostly private-owned banks</td>
<td>state-owned banks</td>
<td>heavily regulated by government</td>
</tr>
<tr>
<td>2. Competition</td>
<td>very high</td>
<td>very low</td>
<td>poor service &amp; no choice for consumers</td>
</tr>
<tr>
<td>3. Types of services</td>
<td>a large number of various types of services</td>
<td>a limited number of services</td>
<td>less choices of services for consumers</td>
</tr>
<tr>
<td>4. Number of banks, and branches</td>
<td>many banks, with a lot of branches</td>
<td>fewer banks &amp; branches</td>
<td>less choices of banks to select from by consumers</td>
</tr>
<tr>
<td>5. Technology</td>
<td>has been used heavily by banks</td>
<td>has not been used in a proper manner by banks</td>
<td>poor service in all terms</td>
</tr>
<tr>
<td>6. Bank staff</td>
<td>highly trained and qualified</td>
<td>less trained &amp; less qualified</td>
<td>poor service in all terms</td>
</tr>
<tr>
<td>7. Marketing</td>
<td>the marketing concept has been employed effectively by banks</td>
<td>marketing neglected by banks</td>
<td>consumers wants and needs are ignored</td>
</tr>
<tr>
<td>8. Consumers</td>
<td>consumers and their satisfaction are very important issues</td>
<td>consumers and their satisfactions are not important</td>
<td>consumers dissatisfied</td>
</tr>
<tr>
<td>9. Use of banking services</td>
<td>used heavily by consumers</td>
<td>used occasionally by consumers, i.e., when it is required</td>
<td>less desire to deal with bank by consumers and loses of many potential marketing segment of consumers</td>
</tr>
</tbody>
</table>
2.5 Conclusions:

The review of past and present developments of the Iraqi banking system in terms of its structure, functions, and problems showed that the financial system in Iraq is still limited in terms of its structure and performance. The purpose of this study is an attempt to investigate consumers' attitudes toward commercial banking services in Iraq. This review will help in understanding consumers' responses when asked to evaluate commercial banking services in Iraq.

One of the most important conclusions highlighted by this chapter is the adverse effect of state ownership of the commercial banks, particularly how it affects the performance of banks as well as the satisfaction of consumers.

Commercial banks in Iraq are totally state-owned, and this has two different dimensions. The first dimension is that at one time, there were private commercial banks in Iraq which were then nationalised, mainly for two reasons: (a) their supposed inefficiency to provide the required banking services for the national economy, and (b) their alleged interest in maximising their share of profits only, without caring for the national interests. In fact, the nationalisation decision was taken by the government at a time when the concept of nationalisation was dominant in the developing world. By the late 1970s and throughout the 1980s until recent times, however, another concept was and still is dominant: that of "privatisation" or denationalisation.

As present thinking, in general, is towards privatisation, some sort of privatisation programme will be of substantial help towards improving the performance of commercial banks in Iraq. But, such a step depends on the second dimension which is in fact a
dilemma for the banking sector in Iraq. As such, it requires hard work and probably a long time to achieve an acceptable solution. Such a dilemma can be summarised into three points:

Firstly, there is no private sector in Iraq which can invest in establishing or managing commercial banks on a large scale. Secondly, the public sector is still dominant in the Iraqi economy. Therefore, private commercial banks will find that it is very difficult to operate in such an economic environment. Thirdly, neither bank management (in terms of staff and other managerial skills) nor current consumers can cope with major changes in the near future.

It will be possible to achieve, however, if available time is dedicated to this end. Privatisation is essential for improvement in the performance of commercial banks and the creation of a new era for the banking sector in Iraq.
CHAPTER THREE

REVIEW OF LITERATURE RELATED TO COMMERCIAL BANK MARKETING WITH SPECIAL REFERENCE TO THE SERVICE OF SAVINGS ACCOUNTS PROVIDED BY COMMERCIAL BANKS

3.1 INTRODUCTION.

3.2 COMMERCIAL BANKING: AN OVERVIEW.

3.3 MARKETING OF BANKING SERVICES.
   3.3.1 THE CONCEPT OF BANK MARKETING.
   3.3.2 DEVELOPMENT OF BANK MARKETING.
   3.3.3 MARKETING RESEARCH IN BANKING.

3.4 REVIEW OF PREVIOUS MARKETING RESEARCH STUDIES RELATED TO CONSUMERS' SAVING BEHAVIOUR.

3.5 CONCLUSIONS.
3.1 Introduction:

The main purpose of this chapter is to present the theoretical framework of bank marketing in general, with particular reference to commercial banking. In addition, a review of previous similar and comparative studies is to be presented.

Investigation into the theoretical framework of bank marketing and the relevant prior studies is essential in order to: (a) provide a better understanding for the problem under investigation; and (b) help the researcher in formulating the research model.

With so much material covered in an effort to build a theoretical framework for bank marketing, it will be useful at this point to be specific and mention aspects of literature review which are related to this study's main topic, i.e., the service of savings accounts provided by commercial banks, and draw pertinent conclusions. Also, because this study is an empirical investigation of consumers' saving behaviour in Iraq, the literature review will be limited to similar and comparative studies dealing with the subject of marketing of commercial banking services with special reference to savings accounts.

3.2 Commercial Banking: An Overview:

Hindle (1985) defines commercial banks as those banks that are most visible to the general public. Their main business is taking deposits and making loans to individuals and industry - a business that they conduct through a network of branches. They are commercial in two senses: they make loans to commerce (i.e., for the
financing of trade), and they are themselves commercial profit-oriented businesses.

Commercial banks are sometimes called retail or deposit-taking banks depending on the banking system and the country they operate in. However, as relates to this study, the term commercial bank in Iraq is used to describe what might be called in Britain or elsewhere a retail / clearing / or deposit-taking bank.

According to Crosse and Hempel (1980) commercial banks have a number of specific tasks. They perform a number of interrelated functions, many of which are necessary parts of our private, free-enterprise system. Commercial banks bring into being the most important ingredient of the money supply—demand deposits through the creation of credit in the form of loans and investment. Banks are the custodians of the community's money as well as the suppliers of its liquidity. Commercial banks also participate with other institutions in the process of accumulating and investing savings, and perform a number of other services.

These functions explain that commercial banks provide several types of retail banking services to a broad range of consumers. However, in this investigation, the service of opening savings accounts by commercial banks is the service of concern.

Reed, Cotter, Gill, and Smith (1984) mention that commercial banks perform a very important service to all sectors of the economy by providing facilities for the pooling of savings and making them available for economically and socially desirable purposes. The saver is rewarded by the payment of interest on his or her savings, which are safe and in a highly liquid form.

This type of commercial bank activity is called the process of mobilisation of savings, which is very important in any national
economy. On the other hand, savers are able to obtain return on their savings and at the same time achieve the degree of safety, liquidity, and other terms compatible with their objectives.

3.3 Marketing of Banking Services:

This section is designed to discuss three important aspects in marketing of banking services. The first part is devoted to highlight the concept of bank marketing. The second part reviews the development of bank marketing. The third part is an overview of the use of marketing research and its applications in banking.

3.3.1 The Concept of Bank Marketing:

Marketing in banking has been defined by Crosse and Hempel (1980) as the creation and delivery of consumer-satisfying products (services) at a profit to the bank.

This definition highlights three important dimensions in bank marketing. Firstly, banks should work hard to create new services and to deliver existing services in such a way that satisfies consumers' needs and wants. Secondly, the concept of marketing in banks should be consumer-oriented rather than product-oriented. Thirdly, as mentioned by Reekie (1972), bank marketing is that part of management activity which seeks to direct the flow of banking services profitably to selected customers. Thus, marketing of banking services seeks, in addition to serving and satisfying customers, to achieve an acceptable level of profitability.

However, in any business the marketing concept has two co-extensive dimensions as identified by Brien and Stafford (1967). The first dimension of the marketing concept is operational. Thus, at the operating level the marketing concept includes many functional decision areas whose end objective is the development of the optimum
method of serving profitable opportunities in the market-place. Thus, marketing management typically involves the formulation of programmes that cover four major strategic areas: Product, Pricing, Place (Distribution), and Promotion. The second dimension of the marketing concept is philosophical. It argues that the needs, wants, and value – attitudes of consumers should be the common focus of all marketing decisions.

Meidan (1984) mentions that the adoption of the marketing concept will recognise that bank customers are changing in terms of their wants, needs, desires, expectations, and problems. Banks must define these in explicit terms and then evaluate their offering in customers' terms, that is, satisfying customers' needs at a profit to the bank.

Therefore, bank marketing management should consider the importance of the following activities in bank marketing as outlined by Crosse and Hempel (1980):

1. Identification of consumers' wants and needs through marketing research.
2. Development and management of products fulfilling the identified consumers' wants and needs.
3. Promotion of the products developed for customers.
4. Establishment and maintenance of meaningful relationships with the community and other special groups.
5. Co-ordination of marketing as an integral part of most banking activities.

However, in order to provide better understanding of the concept of marketing in banking, it is important to refer to the marketing function or the concept of marketing mix in banking. Baker (1977) defines the nature and scope of the marketing function in
terms of what have been called the four P's of marketing: Product, Price, Place and Promotion.

In the following a listing for the four elements of the bank marketing function:

1. Product

In banking product means service; thus, banks provide services for the consumers which they need. Therefore, the product (service) is the central element of bank marketing function. Consumers want a variety of services that they can choose from provided under one roof. Products in banking can be banking services - various categories of deposits and loans, and other services (travel agency, leasing, trust services etc.).

2. Price

The term price in banking refers to interest rate, service charges, discount, trust fees, and other charges and fees. This marketing element is very important in banking because of its importance as a competitive factor. Thus, as relates to price, consumers tend to seek high interest returns with low costs when they deal with banks.

3. Place

Bank customers consider the convenience to home, place of work, and market-place, of bank location as one of the major priorities in selecting a particular bank. Also, whether the bank has many branches located conveniently or has Automatic Teller Machines (ATMs) located in convenience places, are among factors considered as important by customers when making their selection decisions between banks.

Thus, the element place refers to the distributional channels of banking services easily available to consumers and consists of
location of banking offices, design and decor of banking premises, and location and convenience of banking facilities.

4. Promotion

Promotion is one of the visible elements in bank marketing. Promotion consists of different ways to inform consumers about the services provided by the bank to them.

Advertising is one of the most common methods used in promotion. Advertising campaigns can be carried out through the media, brochures, bulletin boards, leaflets, direct mail, etc.

Also, non-advertising methods can be used in promotion, such as economic and other education programmes which do not carry explicit advertising material, financial libraries, and participation of banks in social or sporting activities.

In addition, personal selling is another method which can be used by banks to promote bank services.

3.3.2 Development of Bank Marketing:

In the 1950s and before banks believed that as suppliers of needed services, the public would come to them, therefore, the concept of marketing, as it has been defined in this investigation, was largely ignored by banks. Many of them thought that marketing meant merely advertising, public relations, and sometimes personal selling.

This failure to apply the marketing concept in banking was due to several factors. Person (1964) pointed out the following reasons behind the ignorance of the marketing concept by banks at that time:

a. Banks are profitable;
b. The direction of a bank is complex, requiring close attention to financial matters, and the two-way process of marketing banking services differs from the usual marketing process as it is performed by the sellers of products; 
c. Bankers do not consider aggressive marketing practices to be compatible with the traditions and ethics of banking; and 
d. The lack of qualified personnel in marketing and marketing research in the labour markets from which the banks can draw caused the dearth of marketing research in banks.

However, during the late 1950s and throughout the 1960s, banks discovered that they had to adopt the marketing concept. Donnelly and Ivancevich (1969) point out that due to increasing competition between banks and other financial institutions on one hand, and increasing customers' demands for better and wider banking services on the other, banks were forced to acknowledge that marketing strategies based only on advertising, public relations, and personal selling were no longer sufficient to keep their share of the market.

What they needed was a new marketing strategy based on the marketing concept. In other words, a consumer (market) - oriented, instead of product - oriented, strategy was required to deal with the rapid changes in the market-place. All the same, in comparison with manufacturing industries, the application of the marketing concept in the banking industry was relatively slow to emerge. Clowe and Diina (1978) have shown that development of marketing and marketing research as formal disciplines in the financial industry followed progress in industry by a significant margin. For example,
according to Meidan (1984), the possible application of the marketing concept in banking was mentioned for the first time in the USA, at the American Banking Association (ABA) Conference in 1958. However, in the later 1950s and throughout the 1960s, professional marketing and research activities in financial institutions significantly closed the gap with other industries.

Donnelly and Ivancevich (1969) outlined four essential characteristics which best describe the marketing concept adopted by banks by the late 1960s:

1. Discovering customer wants and needs through marketing research before customer-oriented programs are developed.
2. An emphasis on profitability of marketing operations, rather than on their ability to simply generate increased revenues.
3. Establishment of a marketing department and utilization of trained personnel.
4. An emphasis on the planning of marketing operations.

Perez (1983) mentions that in addition, banks were beginning to understand that convenience was the key to the future of retail banking. The term convenience here means mainly convenience of bank location, and time of bank operations in terms of opening hours and length of waiting time. Also, banks adopted heavy advertising schedules and sales promotion programs to help market banking services.

Capaldini (1974) said that well-informed observers cite the early 1960s as the period when the first real evidence appeared that marketing was being recognized in banking. As the early 1960s became the mid- and late 1960s, businessmen and consumers wanted more convenience, more services, more personal (or technical) assistance.
Commercial banks therefore became increasingly interested in the retail side of the business.

In short, the very nature of banking changed in 1960s. And the change, the response, was essentially a marketing response, i.e., doing what the customer wanted. Thus, the response by banks in the 1960s as described by Perez (1983) amounted to a fundamental change in focus.

According to Perez (1983), as competition continued to increase in the 1960s, banks began the banking innovation. For example, Bank of America offered customers 350 separate financial services. Also, banks throughout the 1960s began to realize that marketing was a lot more than smiling friendly tellers. The banks started to ask their customers in surveys, and responded to customers' answers by improving services. In addition, bankers were beginning to understand the concept of market segmentation and its importance in understanding and analysing consumers.

Perez (1983) describes the changes in banking throughout the 1970s as follows:

1. The bank marketing profession changed dramatically in the 1970s, as for example: (a) marketing positions were increasingly filled by people with formal education in marketing; and (b) specialities and new positions emerged such as: advertising manager, public relations officer, research director, and sales promotion manager.

2. The major influence on bank marketing in the 1970s was the advent of electronic funds transfer systems, which marked a turning point in terms of service speed and efficiency, e.g., Automated teller machines, Direct deposit of pay-roll, Pay-by-phone system, Point-of-sale system, Credit and debit cards, Pre-authorised funds transfer, and Automated clearing house.
As described by Capaldini (1974), the 1970s was characterised as an era of moving from an age of things (products) to an age of people. Thus, bank marketing became an increasingly important bank activity, and was recognised as a job for everyone in the bank, not just the so-called marketing specialists. In other words, the marketing concept in banking became more oriented towards consumers and satisfying their wants and needs, i.e., consumer-oriented, rather than product-oriented.

Lewis (1984) emphasised that throughout the 1970s and 1980s, the nature of banking had altered and progressed as a result of a combination of changes in the market-place. The changes in the market-place were due to the legislative, economic, business, technological, and social developments which affected both personal and corporate customers. As a result, the marketing concept became increasingly relevant and important for the banking industry.

In the 1980s, customers' needs and wants were increasingly expanded. Bank marketing throughout the 1980s had become more consumer-oriented by attempting to achieve the following marketing aims:

1. Providing better, competitive, advanced, and more numerous services to customers.
2. Conducting more marketing research surveys in order to reach a better understanding of consumers' behaviour, attitudes, wants, and other characteristics.
3. Responding rapidly and efficiently to market, social, economic, and technological changes.
4. Bank public relations must be marked by more planning, more positioning of the distinctive image of each bank, and
a higher awareness of the value of public relations to the banking organisation.

5. Devoting a large share of marketing budgets on internal programs to improve the skills of employees.

6. Developing advertising campaigns to be in line with modern social changes and new consumer thinking.

7. Improving personal relationships between bank personnel and customers through building a friendly bank-customer relationship.

8. Developing the personal selling to become a consultative selling relationship between bank personnel and customers.

9. Establishing a marketing information system in order to have access to the latest information about products, consumers, competitors, and other variables.

Thus, by the end of the 1980s the concept of bank marketing had been developed and adopted comprehensively by most banks and other financial institutions. In fact, it can be concluded that marketing in banking is expected to receive more attention and importance in the financial industry during the 1990s.

3.3.3 Marketing Research in Banking:

Hodges and Tillman (1968) defined marketing research as the gathering, recording, and analysing of all facts about problems relating to the transfer and sale of goods and services from producers to consumer. Ross (1968) defined marketing research as the systematic, objective, and exhaustive search for and study of facts relevant to any problem in the field of marketing.

These two selected definitions spotlight the fact that marketing research, in general, is the process of collecting and
analysing facts about problems which are related to present market customers and potential market opportunities.

Meidan (1984) mentions that the concept of marketing research in banking is relatively new. It was not until the early 1960s that the first few banks realised the importance of marketing research for both their future planning and current activities. By 1973, all the major UK clearing banks had organised and staffed a marketing department and most had a formal market research function.

In the banking industry, two sources of data (facts) relating to a particular problem are available: internal and external. The early attempts to apply quantitative marketing research to banking depended heavily on the internal sources of data available to the banks. Thus, bank records contain a huge amount of data about their customers such as socio-economic, demographic, and other financial information about customers. Such information can be about: (a) existing customers, (b) new customers, (c) corporate customers, and (d) in some cases, prospective customers.

As time progressed, especially by the end of the 1970s, the need for more comprehensive information drove banks to seek additional sources of information available outside the bank. By reaching this stage, real marketing research investigations have been carried out by many banks using all the available internal and external data for the purpose of solving different marketing problems.

Once banks implemented the marketing concept, i.e., bank marketing became customer-oriented, especially in the 1980s, marketing research in banking became more sophisticated in the manner in which it collected, reviewed, and analysed data and recommended specific action.
Meidan (1984) mentions that marketing research in banking is a tool for problem solving. It refers essentially to two categories of activities: (a) problem solving, and (b) forecasting results of alternative marketing and business decisions.

Also, the same author mentions five major areas where marketing research techniques have been successfully applied. These are: (1) market segmentation; (2) customer behaviour and bank selection criteria; (3) customer loyalty; (4) bank product/service studies; and (5) bank branch research.

In addition to the above-mentioned areas, new trends have been developed in bank marketing research, especially in the last decade. As mentioned by Meidan (1984), computer technology offers opportunities for cross-evaluating bank marketing services. The research in this field has recently reached quite an advanced stage both in quantity and in quality terms, attempting to supply quantitative answers to some of the most pressing marketing problems facing the banking industry. Figure (3.1) depicts the recent developments in bank marketing research and its applications in the banking industry.
Applications of marketing research in banking:

1. The difference between various target markets.
2. Bank image studies.
4. New products ideas especially those related to the use of new banking technology.
5. Alternative pricing schemes.
6. Advertising alternatives and schemes.
7. Advertising effectiveness.
8. Geographical areas in relation to expanding the distribution network.
10. Evaluating and controlling the marketing management process.
11. Competition with banks and non-banks financial organisations.
12. Carrying out more consumer-oriented researches towards providing better understanding for consumers wants, needs, desires, motivations, attitudes, behaviour, use of a service, selection of a bank, segments, loyalty and profitability.

Figure 3.1: Recent development in bank marketing research.

However, in a more recent discussion, as described in figure (3.1), Pezzullo (1989) outlines the recent developments in the use of marketing research in banking. According to Pezzullo (1989) marketing research enables the marketer to identify and analyse the differences between various target markets. It provides information on how the members of various markets are motivated, how they
perceive the world, and how they behave in response to various stimuli (for example, small differences in interest rates paid, or cash bonuses to attract deposits).

The same author also mentions that marketing research is invaluable in the design of product mix strategies. New product ideas can come from market research; new product concepts can be tested in marketing research, and alternative pricing schemes can be tested among the target market. Research on the attitudes and behaviour of the target market can provide input for the people who design the advertising. Then, research can be used to test the reactions to advertising's creative strategy and the effectiveness of the ad copy.

Also, Pezzullo (1989) indicated that marketing research can identify the geographical areas into which the bank might expand its distribution network. It can be used to measure the sales effectiveness of the retail and commercial customer-contact staff. Completing the planning loop, research is an integral tool for evaluating and controlling the marketing management process. It can measure the success of the marketing strategy and track its effect over time.

Finally, according to Morgan and Piercy (1990), for financial service organisations the 1990s will be dominated by the increasingly competitive nature of the financial services marketplace. Competition is unlikely to be restricted to those organisations that have historically serviced the market for financial services: new competition is likely to emerge from the retail sector and also, for example, from post-1992 Europe. The key problem that needs to be addressed is that of achieving competitive differentiation in offering largely generic financial services. It
was the emerging competitive environment of the 1980s that led to the introduction of a marketing function in many, for example the UK financial services organisations. The continuing competition of the 1990s is likely to lead to a reappraisal of the role of marketing in this sector. In fact, marketing research in the financial services sector will play an important role as a key function in bank marketing.

3.4 Review of Previous Marketing Research Studies Related to Consumers' Saving Behaviour:

As shown earlier in this chapter, early marketing research studies in banking were carried out by some banks in the early 1960s. By the end of the 1960s and later, more banks and researchers applied marketing research techniques for solving different marketing problems in the banking industry. Having discussed this process, it is possible now to turn to a review of previous marketing research studies related to consumers' savings behaviour and attitudes towards savings accounts (see Exhibit (1) for a summary review of the below mentioned studies).

One of the earliest consumer savings behaviour studies was carried out by Claycamp in 1965. Claycamp (1965) conducted an exploratory investigation of consumer savings behaviour in order to: (1) identify characteristics which discriminate between three customer groups, (2) determine the relative importance of different types of variables as discriminating variables between the three groups of consumers, and (3) investigate implications for marketing research of commercial banks and savings and loan associations.

Claycamp utilized three categories of variables in his study: (a) socio-economic / demographic variables; (b) asset variables; and (c) personality variables.
Sample members were classified into one of three categories: savers who held accounts at commercial banks (group c), savers who held accounts at savings and loan associations (group s), and savers who held accounts in both of them (group b). A Two-Way Discriminate Analysis was used in Claycamp's study.

Claycamp tested four differences between group means for each variable included in the analysis. Comparing two groups at a time, he reported that Group C was significantly younger, had more dependents living at home, less investment in stocks, and lower occupational status than Group S. Other two group comparisons showed little significant differences.

By utilizing a two-way step-wise Discriminate analysis to identify differences between group C and group S, Claycamp derived a Discriminate function containing eight final variables: five were psychological, two were socio-economic / demographic, and one was from the asset category. Furthermore, Claycamp noted that psychological variables were better discriminating variables than either socio-economic / demographic or asset characteristics.

By analysing Claycamp's findings, the following conclusions can be reported: (1) Socio-economic variables (excepting age) were of little value in discriminating between different consumers groups; (2) It seems apparent that differences existed between the groups in terms of psychological variables that can be related to marketing strategies; (3) Savings motives variables did not prove to be important as discriminating variables between the groups; and (4) Claycamp's findings indicated that only psychological variables proved to be important discriminating variables between consumer groups.
However, as discussed below, much research relating to consumers' saving behaviour carried out later indicated that both consumers' socio-economic variables and motivations were of great importance in discriminating between different groups of consumers regarding their savings behaviour, in addition to other psychological variables. Beside this contrary evidence, Claycamp's study was subject to the following limitations:

1. The sample was taken from one point in time, one geographic region, and households who were known holders of savings accounts.
2. Results found at this point in time, i.e., at the time when the study was carried out, may have been caused in part by prior promotion (effect). Thus, variables which distinguish between the groups may not have generality in situations where other types of promotion (effect) have been employed.
3. Since a step-wise search of the data was made in fitting the best model, statistical tests of significance are not strictly applicable. Consequently, validation of these results on a new body of data should be done before making generalizations.

Martin (1967) investigated the service of Savings and Loan Institutions (S&Ls) in new sub-markets searching for predictive factors related to savings inflow in new Savings and Loan Offices. One dependent and nineteen independent variable were used in the analysis. Data were analysed by applying a Step-wise Multiple Regression Program that designated the variable "annual savings inflow" as the dependent variable. The findings of regression equation revealed that three independent variable were positively related factors, namely: the number of competitors, the proportion of population age (65 and over), and population growth. Also, the findings showed more significant relationship between the dependent
variable (mean annual savings inflow) and four other economic and demographic variables, which were: percentage of population age (65 and over), social rank, percentage of minority households, and mean household size.

Regarding the competition factors, Martin's findings revealed that the two competitive factors - the number of S&L offices within a two mile radius of subject location, and the number of aggressive competitors within a two mile radius - did affect the savings inflow of S&L offices.

Martin in his study attempted to search for predictive factors which can help S&L offices in predicting their savings inflow. His model built on offices operating area attributes only, while other factors which can affect savings inflow were neglected. This sort of thinking suffers from the neglect of important variables which might effect savings inflow, such as: consumers' perceptions, motivations, and other socio-economic and demographic characteristics.

Therefore, it can be concluded that Martin's model lacks a comprehensive approach to study the problem of predicting savings inflow. However, it did explain the relationship between the dependent variable (i.e., annual savings inflow) and some offices' area economic and demographic attributes.

Allaire (1972) conducted a study based on competition between banks and so called near-banks, by establishing the reasons behind the selection of a particular financial institution by consumers. He used the raw data obtained by the Royal Commission on Banking and Finance in Canada from 1221 respondents who were asked to answer the following question: "How do you determine the choice of financial organizations (bank, trust company, credit union, etc.) in which to
open savings account — that is what were the reasons for your choice of particular financial organization?".

Allaire concluded from the raw data he obtained that the decision to select a particular financial institution is not a very traumatic one. Respondents ranked convenience of location in first place (26.7%), while they ranked higher rate of interest in fifth place (6.5%). Also, the findings showed other important reasons behind selecting a particular financial institution such as: simply preferred it - logical place (17.5%), security of institution (12.3%), familiarity with personnel or methods (8.2%), and other important reasons with lower rank.

These findings provide clear evidence that convenience is the prime reason for the selection of a bank, and it is probably true in many circumstances. In Allaire's study, the term convenience contained three factors: convenience of location, logical place, and convenient hours of operation, which in total counted for (48.8%) in terms of importance.

One can conclude from Allaire's study findings that convenience has become one of the most important dimensions in the marketing of banking services. Thus, consumers' perception of a bank depends largely on the convenience it provides to consumers in terms of location, time, and facilities. In fact, many bank marketing research studies had concluded that convenience was the most frequently given reason for selecting a particular bank by consumers.

Mason and Mayer (1974) analysed the effects of some factors in banking patronage. The main focus of the analysis was on determining consumer's reasons for maintaining checking accounts
image perceptions in the minds of the respondents. In addition, the findings indicated that consumers want to achieve more than financial gains by choosing a particular bank. They want convenience, good treatment and respect.

Finally, in spite of the tentative generalisations derived from the findings of Mason and Mayer's study, which can be of value in strategy formulation by various types of financial institutions, the investigation lacks a more sophisticated and advanced approach to tackle the problem of analysing patronage factors.

Reynolds and Wells (1978) conducted a study on lifestyle analysis as a dimension for bank research, based on a nationwide survey of adult males. For the purpose of analysis, respondents were assigned to one of three groups, as follows:

1. Non-savers: those indicating no deposits during the past year.
2. Infrequent savers: those reporting from 1-11 deposits during the past year.
3. Frequent savers: those reporting 12 or more deposits in the past year.

Their findings indicated that frequent savers demonstrate a relatively high participation in buying government bonds and common stocks, heavy use of bank credit cards for its convenience with less commitment to borrow money.

Also, frequent savers were reported to be more engaged in a wide range of community activities. When compared to the other two groups, frequent savers are most apt to be pleased with their current financial situation, to spread their investment (savings, bonds, and stocks) and to be near-term financial optimists. They feel financially secure, they are most likely to continue to save, to spend pragmatically, to shop carefully and to be value conscious.
and to demand satisfaction. They are influential in their
neighbourhoods and are opinion leaders.

Frequent savers are most apt to be appearance conscious and
to demonstrate this consciousness in the way they dress. They are
likely to be highly conscious of nutrition and health, to be
cosmopolitan urbanites, active, on-the-go, and confident travellers
who read Sunday and evening newspapers, weekly news magazines,
sports and home magazines. They are likely to enjoy music, football,
comedy and talk shows. Frequent savers are hard working people,
dedicated to success, and adventurous about leisure time pursuits.
They are apt to try new things, but only after obtaining information
about them. They are satisfied with life and living, not overly
concerned for the future.

The above findings outlined by Reynolds and Wells demonstrate
the importance and usefulness of life style analysis in providing a
better understanding of bank customers' behaviour, especially those
who are frequent savers, and their psychological profile.

Nevertheless, two limitations can be mentioned here: (1) In
spite of the extensive description provided by the study for
frequent savers' life style, little information has been given about
non-savers' and infrequent savers' life style; and (2) The study
sample contains only adult males. In fact, frequent savers could be
males and / or females. Therefore, the findings did not represent
all consumers' life style characteristics.

Arora, Cavusgil, and Nevin (1985) examined a number of
factors which are important in the choice of a financial
institutions, and identified those which are similar for, and
different between, banks and savings and loan institutions. Data
were analysed using two techniques. Factor analysis, using principle
component analysis with varimax rotation, were applied to analyse variables related to the importance ratings for financial institutions characteristics by respondents. Factor congruency, which gives the coefficient of congruence between two factors, was used to measure the degree of similarity between two factors.

The findings concluded that there were seven common factors extracted to both financial institutions, Banks and Savings and Loan Institutions. The variables with very high loading on the first common factor were: concern for customers, capable management, friendly and knowledgeable personnel, well established, good reputation, safe, reliable, and insured. The second common factor included variables such as: efficiency of tellers, and easy-in, easy-out drive-up tellers. Variables with large values of loading for the third factor were: availability of trust services and safe deposit boxes. The dominating variables of the fourth common factor were the number of branches and their proximity to place of work and place of shopping. The fifth common factor can be labelled as the convenience of non-personal banking. The sixth common factor was availability of a consumer loan and home loan. Finally, the seventh common factor can be labelled as interest competitive.

Collectively, these findings suggested that although consumers consider such factors important in their choice of a financial institution, still, these factors did not help consumers in choosing between a bank and a savings and loan institution. In other words, in the eyes of consumers, banks and savings institutions share mainly similar characteristics. However, the results of the study did indicate a number of factors which were unique to both banks and savings and loan institutions which can be used by customers as basis to choose between them. Such factors
included hours of opening, location near home, and variety of services.

Goudge and Green (1986) examined the role and contribution that market research had played in the development and launch of Midland Bank's savings accounts for children (Midland Bank is one of the big five retail banks in the UK). A series of group discussions were carried out with children aged 10 - 16 years, and parents of children aged 0 - 16 years in order to: (a) examine in general the attitudes of children and their parents to savings accounts for young people; (b) explore the attitude and usage of savings accounts by children in different age groups in order to identify which age groups offered greatest potential for the new accounts; and (c) determine what features the account should have if it were to attract and retain the interest and support of both children and parents.

The findings of twelve group discussions revealed that attitudes of both parents and children towards saving and savings accounts were very encouraging. Children regarded savings seriously, and even the youngest respondents (those aged 10 years) were aware that accumulating money and looking after it was a good thing. Also, opening a bank account was regarded as one of the conscious steps a child can take into adulthood. Meanwhile, parents considered it their duty to teach their children how to save and manage their money. But, their task was made very difficult as the child became teenager by the child's increasing independence.

The findings regarding incentives provided by the bank to children who are savings accounts holders indicated that incentives were warmly welcomed by both parent and children provided they were sensible, useful, and not too extravagant. Furthermore, children
were very happy and even keen to wear, use, and carry goods bearing the name of the company that had provided it, and parents were particularly interested in incentives that saved them some money.

The next stage of the Goudge and Green study directed towards carrying out qualitative work among children and parents in order to assess the overall appeal of new savings packages for children. The findings of this stage revealed that the parents of children aged 10 - 15 years were concerned about what their children like or dislike. Also, the free gifts offered by the bank, as incentives, were very well received by both parent and children, and in particular children in the 10 - 15 years age group were most impressed. Their parents, while still highly rating the free gifts, attached more importance to high interest rate.

The findings above provided some insights about a particular market segment, i.e., children. Moreover, in the highly competitive savings market they helped to clarify what banks should offer to gain such a type of customer, who will represent the next real generation of bank customers. Therefore, undertaking a market research investigation about children and their parents' attitudes towards savings and savings accounts provides a good opportunity to the bank to define such type of consumers' wants, needs, and desires. However, although the investigation was a good attempt to understand such a market segment, it lacks the use of advanced marketing research techniques, especially a quantitative method in investigating such an important issue.

Langrehr (1986) investigated competition between banks on one hand, and savings and loan institutions on the other, for consumers' savings, and the criteria for consumers to select between them.
A longitudinal study of consumer images of financial institutions was conducted to measure the possible changes in financial institution evaluations. One assumption to be tested was that as the product offerings of the two types of financial institutions became more similar, so would consumer perceptions of these organizations' products. Another assumption was that since the changes in the industry occurred on product features and not on institutional or subjective characteristics, consumers would not change their perceptions of financial institutions on these subjective characteristics. Data were collected at two different times. The first survey was conducted in 1980, and the second, in 1983. In each survey, a random sample of 750 respondents was used.

The findings of the study can be divided into two dimensions. The first dimension can be called product evaluation. Regarding this dimension, the findings confirmed that there were significant changes in the evaluation of banks and savings and loan institutions in terms of their products (types of services). An overall increase between 1980 to 1983 in consumer acceptance of services provided by savings and loan institutions was reported. These services included checking accounts, credit cards, car loans, mortgage loans, savings return, and other useful services. These findings did not mean that consumers preferred savings and loan institutions over banks, but rather referred to changes in consumer perceptions. All the same, the findings confirmed that banks still enjoy a higher acceptance and better perception.

The second dimension can be labelled as institution evaluation, and included seven variables. The study reported that there were significant shifts between 1980 and 1983 in the responses on four variables, namely convenient hours, providing useful
information, responsive to needs, and safety. However, there were not any significant shifts in evaluations of convenient location, fastest service, and experienced personnel. Langrehr concluded that consumers' preference for banks responses over savings and loan institutions remained unchanged.

The study reported here enjoys the following advantages: (a) the time scale has been used effectively for the purpose of evaluation; (b) such an approach (i.e., a study carried out in two different periods) can provide accurate and revised results about the problem under investigation; and (c) the evaluation process has been carried out according to two dimensions: product evaluation, and institution evaluation. Nevertheless, such an approach has certain disadvantages, such as being time consuming, costly and possibly affected by other social and economic changes.

Alessandra, Knierim and Yavas (1986) attempted to provide some insights into the banking behaviour of consumers in terms of their age focusing on older consumers.

The principle idea behind this study was the growth in the number of older consumers on one hand, and their untapped investment potential on the other. Older consumers represent an attractive market segment for financial institutions since beside their growth in numbers, given an increase in their income, they are likely to save or invest. Therefore, the main purpose of the study reported here was to uncover the attitudes and behaviour of older consumers toward selected aspects of financial services, with particular emphasis on Savings and Loan Institutions (S&Ls).

The findings revealed that in relation to the importance of selected factors in choosing a Savings and Loan Institution, the factor "convenience to home" ranked first, followed by helpful and
pleasant personnel (second); good reputation (third); free services (fourth); full range of services (fifth); fast and efficient service (sixth); convenient to shopping (seventh); convenient hours (eighth); parking facilities (ninth); automated teller machines (tenth); and convenient to work (eleventh).

However, regarding the influence of information sources in choosing a Savings and Loan Institution, the source "saw it in area" ranked first, followed by friends or neighbours (second); television (third); newspaper (fourth); real estate agent (fifth); billboard (sixth); advertising by mail (seventh); magazine (eighth); radio (ninth); and advertising on transit bus (tenth).

The banking behaviour patterns of the older consumers indicated that only one fourth of the respondents frequented their savings and loan branch once or more per week, whereas 44.3% did so once a month, and 25% twice a week or more. Only half of older consumers had the plastic card. Moreover, only 14% of them were familiar with automated teller machines, and less than 7% of them had ever used the automated teller machines.

These findings confirmed that older consumers were reluctant to use the modern banking technology, and the overall attitudes of older savings and loan customers seemed to be somewhat conservative in relation to S&Ls innovations. Also, it can be concluded that older consumers prefer banking services provided to them in their local area, i.e., near their place of living.

Kaynak and Yavas (1986) attempted to extend the application of usage rate of a product/service as a method for segmenting the market. Their study was designed to achieve the following purposes:
1. To determine the importance of selected patronage factors in choosing a commercial bank by frequent and infrequent segments.

2. To determine the perceived usefulness of several services offered by commercial banks to the same groups.

Two categories of variables were used. The first was the dependent variable (frequent users / infrequent users). Thus, respondents were divided into two groups: 58 frequent users and 146 infrequent users. The second category of variables consisted of independent variables divided into two sets. The first set was related to importance criteria. Thus, respondents were asked to rate the level of importance they gave to a series of factors in choosing a commercial bank. The second set of independent variables was designed to generate data concerning the perceived usefulness of several services provided by the commercial banks to their customers.

The comparisons between frequent and infrequent users were made by using t-test statistical method. The findings of the t-test revealed that there were statistically significant differences between frequent and infrequent bank customers on certain attributes. Location near home or work was more important for infrequent customers, whereas available parking space was more important to frequent customers than to infrequent customers.

Also, comparisons were made by using a two-tailed Mann-Whitney U-test regarding the usefulness of services. The findings of U-test revealed that there were statistically significant differences between frequent and infrequent bank customers as regards to rating of the usefulness of selected banking services. The usefulness of savings accounts and savings bonds was rated
higher by infrequent bank customers than by frequent customers. Frequent customers, on the other hand, rated the usefulness of credit cards higher than their infrequent counterparts.

One can conclude from the above findings that: (a) there are a certain differences between frequent and infrequent users in terms of the importance they attach to different bank attributes; and (b) infrequent users appear to be mostly those who can be characterised as savers. By contrast, frequent users appear to be mainly those who can be characterised as spenders.

Although, the study reported here provided good comparison between two types of bank customers (frequent and infrequent), a number of limitations can be mentioned here: (a) the findings did not mention the interaction between demographic variables and other independent variables and how they can affect either type of frequent and infrequent bank customers in their banking behaviour and responses; and (b) the size of the frequent bank customers sample was too small, being only 58, in contrast to that of infrequent bank customers were 146.

Goodfellow (1987) undertook exploratory research to define the savings market in customer or demand-orientated terms, such that customer needs and requirements had primacy. The main objectives were to gain insights into the basic motivations, attitudes and beliefs of savers, and to investigate consumers' perceptions and attitudes toward savings and investments in general.

The research findings regarding consumer perceptions and attitudes towards savings and investments revealed that at a superficial level of analysis, the terms "savings" and "investment" were perceived to define different areas. In terms of reported behaviour and in-depth analysis of the definitions, there was no
consistent and meaningful differentiation between the two terms. The common denominator between savings and investment according to respondents was that they were both terms for money which is not spent and is tied up for varying periods of time.

The findings regarding life-cycle stage and experience confirmed that: (a) stage in the life cycle had been identified as a significant factor in influencing attitudes and behaviour in a variety of product fields; and (b) stage in the life cycle had been found to be of major importance in consumer savings behaviour. Several respondents made reference to the fact that their attitudes towards financial matters had been formulated at an early stage (childhood), and that these had not significantly changed.

In a more advanced stage of research, respondents were divided into groups according to their attitudes towards savings and investments. The findings indicated that the most immediately apparent difference in attitudes was between those whose philosophy was basically to "spend", and those who seek to "save" almost regardless of their circumstances.

However, from the plethora of attitudes, the findings elicited a pattern of five groups, labelled as follows:

1. Financial Managers: The major characteristics of this group were a high level of interest and activity in financial matters.
2. Ethical Savers: This group represented the most prudent type who adopted a cautious approach to financial matters. Borrowing was avoided whilst saving was a way of life regardless of financial circumstances.
3. Credit Users: This group might be viewed in certain respects as the polar opposites of the ethical savers in
that they were risk takers and perceived little merit in saving.

4. Finance Avoiders: The major characteristics of this group were a disinterest in money and a desire to minimise their involvement in financial matters.

5. Acceptors: The key characteristic of this final group was that they accepted that a level of involvement in financial matters was an inevitable and essential element in modern society.

The findings of the study reported here provided better understanding for consumer behaviour in two important financial subjects, namely savings and investments. Such an understanding can help many financial organisations in formulating their strategies to gain and keep customers. All the same, the following limitations can be mentioned: (1) The sample size was too small (only 25 respondents were interviewed), since such a sample cannot be statistically representative of the population; (2) The findings lack reliability and stability because of the small sample size; (3) It is possible that the sample over-represented the more knowledgeable and active savers; and (4) Because the study was exploratory, no attempt had been made to explain the interrelationship between factors affecting consumer behaviour. Adding to that, there is the difficulty of explaining the complex pattern of beliefs, attitudes, and motivations which influence saving / investment behaviour.

Erol and El-Bdour (1989) investigated attitudes, behaviour and patronage factors of bank customers towards Islamic banks in Jordan. The authors used primary collected from a sample of Islamic bank customers. Percentages were used to analyse the demographic and socio-economic characteristics of respondents. The t-test and factor
analysis were used to analyse customers' attitudes towards Islamic banks in Jordan. The main findings of the study reported here can be summarised in the following: (a) in considering motives responsible for selecting Islamic banks, religious motives did not stand out as being the major significant motive; (b) bank customers were shown to be profit motivated which is in line with Islamic legal doctrines which encourage a fair return on investment; and (c) customers indicated an important consideration to the new branches' role in increasing the utilisation of services provided by Islamic banks. One limitation can be mentioned with regard to the above mentioned study, that is no mention was made to the role of competition between traditional commercial banks and Islamic banks and how different segments of consumers of banking services perceive them. In other words, the role of competition between the newly established Islamic banks and traditional commercial banks has not been mentioned.

Kaynak, Kucukemiroglu and Odabasi (1991) investigated commercial bank selection in Turkey. Their study was based on survey data collected from 250 respondents in Turkey. Multivariate analysis of variance model and factor analysis model were used to analyse the data. The findings indicated that there were significant differences between male and female bank customers in terms of their attitude towards different commercial banks and the services they provide in Turkey. In other words, sex of respondents was a significant factor in influencing consumers bank selection in Turkey. The findings indicated also that there were differences between frequent and infrequent bank customers in Turkey. Age of respondent was significant in discriminating between bank customers in Turkey.
It can be argued that the study mentioned above is related to the present investigation. That is to say that the above mentioned study was carried out in Turkey and the present investigation is carried out in Iraq. Turkish and Iraqi financial markets share many similarities in terms of institutions, consumers, types of services, the level of advancements in banking system and facilities. In other words, the two countries are comparable. As is known and concluded by the authors of the above mentioned study, Turkish bank customers share many similarities with those bank customers in Middle Eastern countries. This can be attributed to cultural, economic, social and consumer behaviour similarities. Therefore, most of the findings of the above mentioned study about Turkey are relatively applicable to the Iraqi bank customers as it will be discussed in the research findings of the present investigation.

Finally, exhibit (3.1) provides a summary for the above mentioned previous research publications which includes the focus of each study, methodology, findings and limitations.
### Exhibit 3.1: Summary of Previous Research Publications Related to Consumers' Saving Behaviour.

<table>
<thead>
<tr>
<th>RESEARCHER</th>
<th>FOCUS OF STUDY</th>
<th>METHODOLOGY</th>
<th>MAIN FINDINGS</th>
<th>LIMITATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Claycamp (1965) The USA</td>
<td>Identifying the differences between savers with Commercial Banks/Savings and Loan Institutions/ with both.</td>
<td>Discriminant Analysis</td>
<td>Socio-economic variables (except age) were of little value in discriminating between groups. Differences existed between the groups in terms of their psychological characteristics. Savings motives were not important as discriminators.</td>
<td>Later studies indicated that both socio-economic characteristics and motivations were of significant importance in discriminating between different groups. The sample contained only holders of savings accounts.</td>
</tr>
<tr>
<td>Martin (1967) The USA</td>
<td>Searching for predictive factors related to savings inflow in S&amp;L institutions.</td>
<td>Regression Analysis</td>
<td>The independent variables no. of competitors, consumers aged 65 and over and population growth were positively related to annual savings inflow. Economic and demographic variables of consumers were positively related to annual savings inflow.</td>
<td>The study did not investigate the influence of consumers' perceptions and motivations on annual savings inflow. The study did not explain the relationship between annual savings inflow and offices' area economic and demographic attributes.</td>
</tr>
<tr>
<td>Allaire (1972) Canada</td>
<td>Investigating the reasons behind the selection of a financial institution to deposit at it.</td>
<td>Percentages</td>
<td>Convenience in terms of location and time was the prime reason for the selection of a bank and received 48.8% of the rate of importance. Other variables such as higher rate of interest, security and familiarity with the bank received also high rates of importance.</td>
<td>The study lacks using statistical methods of data analysis to provide statistically tested results.</td>
</tr>
</tbody>
</table>
### Exhibit 3.1 (continued)

<table>
<thead>
<tr>
<th>RESEARCHER</th>
<th>FOCUS OF STUDY</th>
<th>METHODOLOGY</th>
<th>MAIN FINDINGS</th>
<th>LIMITATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mason &amp; Mayer (1974) The USA</td>
<td>Determining consumers' reasons for maintaining checking accounts with banks and savings accounts with banks, S&amp;Ls and Credit Unions.</td>
<td>Percentages</td>
<td>Convenience of location was the prime reason for maintaining a checking account with a bank. Convenience of location and having a checking account at the bank were the prime reason for maintaining a savings account at the bank. Favourable interest on savings was the prime reason for maintaining a savings account at S&amp;Ls and Credit Unions.</td>
<td>The study lacks using statistical methods of data analysis to provide statistically tested results.</td>
</tr>
<tr>
<td>Reynolds &amp; Wells (1978) The USA</td>
<td>Investigating the life style of three groups of consumers: non-savers infrequent savers frequent savers.</td>
<td>Percentages</td>
<td>The life style of frequent savers is different in comparison with non-savers and infrequent savers. The importance of life style analysis in providing better understanding for bank consumers' behaviour was underlined.</td>
<td>Little information was given about the life style of non-savers and infrequent savers. The sample consisted of males, i.e., females were excluded from the analysis. The study lacks more reliable statistical methods of analysis.</td>
</tr>
<tr>
<td>Ascora, Cavusgil &amp; Nevin (1985) The USA</td>
<td>Examining a number of factors which are important in the choice of a financial institution (banks &amp; S&amp;Ls).</td>
<td>Factor Analysis &amp; Factor Congruency</td>
<td>The findings indicated that seven common factors influencing the choice of banks and S&amp;L institutions these are: dependability of institution, convenience, variety of services, accessibility, convenience of non-person banking, availability of loans and interest competitive.</td>
<td>The response rate was very low 31% of the original sample. Factor congruencies were calculated manually due to lack of computer programme for calculating them at that time.</td>
</tr>
<tr>
<td>Goudge &amp; Green (1986)</td>
<td>Examining the role and contribution of market research had played in the development and launch of savings accounts for children.</td>
<td>Qualitative research</td>
<td>Children and parents attitudes towards saving and savings accounts were positive and very encouraging. Incentives provided by the bank to children were warmly welcomed by both parents and children.</td>
<td>The research was qualitative and based only on group discussions. There was no prepared list of questions before and during the discussions. No statistical analysis was carried out.</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Langrehr (1986)</td>
<td>Investigating the competition between banks and S&amp;Ls for savings and the criteria for consumers to select between them between 1980 to 1983.</td>
<td>Percentages &amp; chi-square test</td>
<td>With regard to product evaluation the study concluded that there were changes in favour of banks over S&amp;Ls between 1980 to 1983. With regard to institution evaluation again there were changes in favour of banks over S&amp;Ls between 1980 to 1983. The overall conclusion was that consumers’ preference for banks over S&amp;Ls remained unchanged.</td>
<td>Using the same sample and the same list of questions over two periods has some disadvantages such as: time consuming, costly and can be affected by other social and economical changes.</td>
</tr>
<tr>
<td>Alessandra, Kierim &amp; Yavas (1986)</td>
<td>Providing some insights into the banking behaviour of consumers in terms of their age focusing on older consumers.</td>
<td>Simple ranking of importance according to percentages</td>
<td>Older consumers were reluctant to use the modern banking technology and their were conservative towards bank innovations. Also, they preferred banking services provided to them in their local area.</td>
<td>The original sample contained all age groups therefore only 11% rate of response was achieved. No advanced statistical methods of data analysis were used.</td>
</tr>
<tr>
<td>Kynak &amp; Yavas (1986)</td>
<td>Extending the application of usage rate of a service as a method for segmenting the market (frequent vs. infrequent users).</td>
<td>The T-Test</td>
<td>There were significant differences between frequent and infrequent users in terms of the importance they attached to some independent variables related to the location of the bank and the services it provides.</td>
<td>The overall sample was small (250 respondents) in particular the subsample of frequent users (only 58 respondents). The findings did not mention the interaction between the demographic variables and the dependent variable, i.e., the usage rate.</td>
</tr>
<tr>
<td>RESEARCHER</td>
<td>FOCUS OF STUDY</td>
<td>METHODOLOGY</td>
<td>MAIN FINDINGS</td>
<td>LIMITATIONS</td>
</tr>
<tr>
<td>-------------------</td>
<td>--------------------------------------------------------------------------------</td>
<td>------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Goodfellow</td>
<td>Defining the savings market in consumer or demand-oriented terms.</td>
<td>Qualitative research</td>
<td>Respondents viewed &quot;savings&quot; and &quot;investment&quot; as they were both terms for money which is not spent. Life cycle stage was a significant factor in influencing attitudes and behaviour of consumers. The most apparent difference is between two groups of consumers &quot;spenders&quot; and &quot;savers&quot;.</td>
<td>Qualitative research based upon small sample not necessarily representative of the target population and lacks the reliability and stability of large-scale quantified research.</td>
</tr>
<tr>
<td>Erol and El-Bidou</td>
<td>Investigating attitudes of bank customers towards Islamic banks in Jordan.</td>
<td>Percentages, T-test and Factor Analysis</td>
<td>Religious motives did not stand out as being the only major significant motive for selecting an Islamic bank. Bank customers were profit motivated. New branches have important role in increasing the utilisation of services provided by Islamic banks.</td>
<td>No mention was made to the role of competition between traditional commercial banks and the relatively newly established Islamic banks.</td>
</tr>
<tr>
<td>Kaynak, Kucukemiroglu &amp; Odabasi</td>
<td>Investigating commercial bank selection in Turkey.</td>
<td>Multivariate Analysis of Variance &amp; Factor Analysis</td>
<td>Sex and age of respondents were significant factors in influencing consumers' bank selection. There were differences between frequent and infrequent bank customers in terms of their attitudes and demographic and socio-economic characteristics.</td>
<td>The size of the sample was not large enough especially because non-response rate and response errors reduced the actual number of participants to answer the questions included in the questionnaire.</td>
</tr>
</tbody>
</table>
3.5 Conclusions:

It has been emphasised in this chapter that one of the most important roles of commercial banks is the role of accumulating and investing savings.

On one hand this role of savings mobilisation is very important for any national economy, while on the other hand, it is a banking service provided by the banks for customers, when they need it. Thus, customers (savers) seek to put their savings in a safe and secure place with an acceptable level of liquidity and profitability.

Bank marketing is the process of creating and delivering satisfactory services to consumers at a profit to the bank. Bank marketing in the 1950s and before was understood by banks to include merely advertising, public relations, and personal selling. By the late 1950s and throughout the 1960s, banks discovered that they had to adopt the marketing concept in order to survive in the increasingly competitive market environment.

The marketing concept for banks means that banks must recognise that bank customers are changing in terms of their wants, needs, desires, expectations, and problems. In other words, banks must adopt customer - oriented rather than product - oriented marketing strategies.

The use of marketing research techniques in banking is relatively new. That is, throughout the 1960s and later on, few banks realised the importance of marketing research in banking. However, by the early 1970s and throughout the 1980s, many banks and market researchers have carried out some marketing research studies to solve some marketing problems in the banking industry.
The application of marketing research in banking has become wider, especially during the 1970s and 1980s. In banking, marketing research is used as a problem solving instrument. However, five major areas have been mentioned widely in bank marketing research: (a) Market segmentation; (b) Customer behaviour and bank selection; (c) Customer loyalty; (d) Bank service; and (e) Bank branch studies. But, more recently and because of the deployment of the computer technology in banking new trends and applications have developed in the use of marketing research in banking. Thus, the use of advanced computerised technology by banks has provided the opportunity to find quantitative answers to different types of marketing problems facing the banking industry.

The following conclusions can be derived from the discussion of the previous similar and comparative marketing research studies reported in this chapter:

1. Most previous studies have confirmed that consumers' socio-economic, demographic, and psychological characteristics have a great impact on consumers' savings behaviour.

2. Consumers' socio-economic, demographic, attitudinal, and psychological characteristics can be used effectively in discriminating between different groups of consumers. For example, they can be used in discriminating between savers and non-savers effectively.

3. In addition to the above mentioned variables, some bank attributes, and quality of service variables, have an important role in influencing consumers' savings behaviour and their perceptions of the service of savings accounts.
4. Modern consumers often seek more than just a good return on their savings. Many studies have confirmed that modern consumers seek convenience in terms of time and place, a good personal relationship with the bank, and availability of modern banking facilities and services. In addition, they also look for a safe and secure place to deposit their savings, liquidity, and easy access to their savings.

5. Little attention has been paid by previous studies to the role of basic personal motivational factors, such as reasons for having savings accounts, that influence consumers' savings decisions and behaviour, especially in the developing countries.

6. A few attempts, if any, have been made to study in a comprehensive way the influence of all socio-economic, demographic, psychological, attitudinal, and motivational factors, taken together, in consumers' savings behaviour, especially in the developing countries.

However, the present study is an attempt to provide better understanding of consumers' savings behaviour by using a more comprehensive approach. Thus, in this investigation an attempt is made to combine all the factors mentioned in item (6) above in investigating consumers' saving behaviour.

Three facets have been defined in this study, as will be discussed extensively in chapter five, in order to investigate consumers' saving behaviour in Iraq:

Facet D1: Consumers' attitudes towards savings accounts.
Facet D2: Bank attributes.
Facet D3: Consumers' financial psychographic characteristics.
In addition there has been an attempt to investigate the role of consumers' profile characteristics, i.e., socio-economic and demographic characteristics, in influencing consumers' saving behaviour in Iraq.

Each of these facets contains a number of sub-facets and elements which have been included in the analysis in order to comprehensively investigate the problem of understanding consumers' savings behaviour (decisions) in Iraq.

In fact, the most important aim in doing this is to explain: (a) What are the factors that influence consumers' savings decisions to save at a commercial bank; (b) What are the relationships between the identified factors, especially the relationship between consumers' profile characteristics (socio-economic and demographic) and other attitudinal factors; (c) What are the differences between consumers who are "banked with savings accounts" and "non-banked" in terms of their attitudes towards the idea of saving, having savings accounts, and other bank attributes; (d) What are the differences between savers and non-savers in terms of their socio-economic and demographic characteristics; and (e) What are the differences between consumers' saving behaviour according to their: age, family size, income, educational level, and saving habits.
CHAPTER FOUR

CONSUMER BEHAVIOUR

4.1 INTRODUCTION.

4.2 MODELS OF CONSUMER BEHAVIOUR: THE COMPREHENSIVE MODELS.
   4.2.1 THE HOWARD - SHETH MODEL.
   4.2.2 THE HOWARD MODEL.
   4.2.3 THE ENGEL, KOLLAT, AND BLACKWELL MODEL.
   4.2.4 COMPARISON OF THE MODELS.

4.3 FACTORS AFFECTING CONSUMER BANKING BEHAVIOUR.
   4.3.1 THE EXTERNAL FACTORS.
   4.3.2 THE INTERNAL FACTORS.
   4.3.3 THE CONSUMER BUYING PROCESS.

4.4 CONCLUSIONS.
4.1 Introduction:

The main objective of this chapter is to discuss the theoretical aspects of consumer behaviour. Thus, an extensive discussion for the comprehensive models of consumer behaviour is to be presented. Also, the main factors related to consumer behaviour in general, and consumer banking behaviour in particular are to be discussed. Finally, a conclusion is to be made regarding the relationship between consumers' banking behaviour and other models of consumer behaviour.

4.2 Models of Consumer Behaviour: The Comprehensive Models:

In this chapter the attention is turned to the examination of various alternative models of consumer behaviour. However, before examining each model, it is important to highlight some thoughts about the meaning of a model, and its uses in consumer behaviour studies.

Markin (1974) defines consumer behaviour as a host of complex activities and actions, some physical and some mental. In this definition both activities and actions can be represented by consumer decision processes such as: the purchase activity of problem recognition, awareness, attention, search, and evaluation, with final acts of choice such as: acceptance, rejection, or postponement.

Also, this definition acknowledges a concern with post-purchase phenomena such as: cognitive dissonance (difference) and all those activities related to dissonance reduction. Furthermore, this definition refers to all subjective phenomena such as: mood, introspection, attitude, self-theory, and cognitive structures, that
are likely to effect the consumer's choice of goals, decision processes, and solutions.

In regard to the development of the concept of consumer behaviour, Walters (1978) mentions that consumer behaviour has grown up in the era of the computer. Specific and comprehensive models were made available while the subject was still in its relative infancy. Thus, some of the trial and error was avoided. The comprehensive models have given consumer behaviour development a distinct advantage over earlier marketing concepts, and the models, no doubt, have been a significant factor in the rapid development of consumer concepts.

In addition to the above, Engel and Blackwell (1982) indicate that once consumer behaviour began to achieve a measure of sophistication as a discipline around the middle 1960s, some of the pioneering writings on this subject were built upon models of consumer behaviour.

Loudon and Della Bitta (1984) define a model as a simplified representation of reality. It simplifies by incorporating only those aspects of reality that are of interest to the model builder. Other aspects that are not of interest and only add to the complexity of the situation can be ignored.

Based on the above definition of a model, the term consumer model can be described as the representation of reality in a simplified way. Thus, anything used by the model builder to represent the reality, includes only those variables or aspects that are of interest to him. The representation of a consumer model can be: (a) verbal, i.e., a model builder can model something by verbally describing it; (b) algebraical, i.e., a model may be expressed algebraically by representing it with mathematical
symbols; and (c) pictorial, i.e., a model can be represented by using, for example, a map or flow chart.

Whatever the method of model representation used by model builders, a model is used in order to achieve some purposes. Williams (1981) suggests that models fulfil two main purposes. First, they assist in the development of theories of consumer behaviour; and second, they aid understanding of the complex relationship involved.

However, by simplifying consumer behaviour into its principle components and by identifying the relationships between variables, a model serves as a frame of reference that can be used to direct research. Thus, a model can be used to build a systematic and logical thinking about consumers, this can entail as described by Loudon and Della Bitta (1984) the following: (1) identifying the relevant variables; (2) indicating their characteristics; and (3) specifying their inter-relationships, that is, how they influence each other.

4.2.1 The Howard - Sheth Model:

Williams (1981) mentions that the Howard - Sheth model of buyer behaviour is based on a model originally conceived by John Howard, which has been revised and refined with the assistance of Jadish Sheth in 1969. The input stimuli in the model discussed here consist of information obtained from the social and commercial environment, and the output responses are buyer behaviour, including attitudes and motivational sets as explained in figure (4.1).

Williams (1981) also mentions that the Howard - Sheth model is essentially a model of consumers' rational choice decisions. It assumes a degree of rationality on the part of the consumer to the extent that decisions are rational within the limits of consumer's
perceptual, learning, and information-processing capabilities. The consumer in Howard–Sheth model is not assumed to consider all the various alternatives but rather forms an evoked set of brands meeting the criteria necessary to be deemed satisfactory alternatives. The Howard–Sheth model is suitable to explain brand choice decisions. It is less capable of explaining selection decisions between two different products, for example, opening a savings account or buying a life insurance policy.

The model concentrates on the way in which information is perceived and the adaptive behaviour that results through the learning process. Implicit to the model is the assumption that the consumer will always try to simplify his buying decision through the acquisition of more information and through gaining experience. The model does not, however, fall into the trap of assuming that behaviour takes place in a vacuum.

However, in terms of evaluating the Howard–Sheth model Williams (1981) has emphasized that the model has attracted a great deal of interest, not least because it embraces the principle determinants of behaviour; perception; communication; learning; and attitudes. It does, however, suffer from a number of shortcomings and these stem mainly from the fact that the variables and the relationships between them are not well defined. The distinctions between the endogenous (internal) variables and the exogenous (external) variables, for example, are not sharp, and empirical evidence has suggested that some of the exogenous variables have as much influence on the outcome as some of the endogenous variables. However, for more details about the Howard–Sheth model see, for example: Markin (1974), Walters (1978) and Engel and Blackwell (1982).
4.2.2 The Howard Model:

The Howard model is a revised version of the original Howard - Sheth model. The revision of the model had been done by John Howard in 1977. Figure 4.2 shows the revised Howard model. The main difference between the two models as has been described by Engel and Blackwell (1982) is that the dotted lines, as shown in figure 4.2, are designated as feedback, meaning that a variable appearing later in the process "feedback" and affects an earlier variable in a functional way.

However, Engel and Blackwell (1982) concluded that in the essence of what has been mentioned above, the original Howard - Sheth model and Howard model are very much alike.

4.2.3 The Engel, Kollat, and Blackwell Model:

The Engel, Kollat, and Blackwell model of consumer behaviour had been first offered in 1968. As is described in figure 4.3, the model contains five components: (1) input stimuli; (2) information processing; (3) a decision process; (4) decision-process variables; and (5) external influences.

Loudon and Della Bitta (1984) mention that the form of these components and how they relate to each other varies depending on the degree of involvement that the consumer is experiencing in a given purchase situation. In the high-involvement version, as shown in figure 4.3, the core component is the decision-process, which includes five basic stages: (1) problem recognition; (2) information search; (3) alternative evaluation; (4) choice; and (5) outcomes.

Engel and Blackwell (1982) explained that their fourth revision for the model had several distinct purposes:
Figure 4.1: The Howard – Sheth Model, (1974 version).

Figure 4.2: The Howard Model.

Source: J. A. Howard, Consumer Behaviour: Application of Theory,
Figure 4.3: The Complete EKB Model of High-Involvement Decision Process.
1. To highlight more clearly the inter-relationship between stages in the decision process and the various endogenous and exogenous variables.

2. To clarify the relationship between attitudes and behaviour to reflect the contributions of the Fishbein extended model. Thus, beliefs and intentions were introduced as explicit variables for the first time as was normative compliance.

3. To define the variables with greater precision and to specify functional relationships to permit empirical testing.

However, for more details about the EKB model see, for example: Walters (1978), Williams (1981), and Hawkins, Best and Coney (1986).

4.2.4 Comparison of the Models:

The Howard - Sheth, and Howard model are very comprehensive. However, the Howard - Sheth model has been described by Walters (1978) as a very precise construction with the variables clearly connected in their major interactions. It points emphatically to the great variety of inputs that affect consumer behaviour. In its construction the authors of the model have done an excellent job of drawing from business, psychology, sociology, management, etc., and of bringing these areas into the concept of consumer behaviour.

The Howard - Sheth model has its problems as had been stated by Walters (1978): (1) the very complexity of the model causes problems with quantification; (2) the interaction of the inputs, stimulus ambiguity, and perceptual bias are inadequately explained;
(3) the redundancy in learning constructs and outputs which can lead to confusion; and (4) variables such as: needs, communications, and decision processes are not emphasized in the model.

While, the EKB model, as had been described by Engel and Blackwell (1982), is unique in highlighting the decision process and explicitly including the proven relationships of the Fishbein behavioural intentions models under alternative evaluation.

However, Walters (1978) suggests that the EKB model has several advantages for experimentation: First, it combines relative completeness with a logical ordering of information. Second, it emphasizes decision making more than other theoretical models. Third, it is the easiest to follow in terms of its revised form. Fourth, it does a better job of emphasizing how relationships occur.

The EKB model has its deficiencies as had been outlined by Walters (1978): First, important internal variables such as: needs and motivations are not specified. Second, it is the most mechanical of all experimental models. Third, it is not clear how the environment is related to the central control unit and to the stimuli. Finally, as mentioned by Engel and Blackwell (1982), confidence in ability to judge the product has not been included in the EKB formulation.

In general, a close examination of the above mentioned models reveals that there are some similarities and dissimilarities between them. Also, all the models are primarily experimental and designed for specific reasons.

In addition, as it has been described by Engel and Blackwell (1982), the EKB and Howard models share a general agreement on the functioning of memory. The EKB model, however, goes into far more
detail on specifying the steps which occur between the stages of exposure and retention.

Finally, in addition to the above discussed models of consumer behaviour, there are a number of other less known models of consumer behaviour such as: The Nicosian Model (see Walters, 1978); The Andreason Model (see Markin, 1974), and The Holocentric Model (see Markin, 1974 and Walters, 1978).

4.3 Factors Affecting Consumer Banking Behaviour:

The above mentioned models of consumer behaviour have indicated that consumer behaviour is subject to influence by several types of decision process variables some of which are external and others are internal.

However, consumer behaviour in banking is subject to the same influences. In other words, consumers' banking behaviour can be influenced by a number of internal and external factors. Evans and Beckman (1974) defined three sets of factors that might influence consumer banking behaviour, these factors are the following: (1) external factors; (2) internal factors; and (3) the consumer process.

4.3.1 The External Factors:

Meidan (1984) indicates that there are a number of external factors that might influence consumer banking behaviour. These can be divided into: (1) cultural; and (2) social factors.

1. The cultural factors:

Consumers are likely to be influenced by their own culture, i.e., the social culture they have grown up in. Thus, consumers'
needs, wants, perceptions, and desire can be affected by their own cultural characteristics.

Therefore, many banks have considered this fact, and have based some of their operations on cultural factors. For example, national banks have attempted to open branches in countries where there is a large number of immigrants of their origins. In fact, in many countries such branches are very successful in attracting the targeted segments of consumers, i.e., consumers whose nationality is similar to the bank's nationality.

(2) The social factors:

In their empirical investigation Tan and Chua (1986) concluded that in an Oriental culture, where people are still strongly rooted in traditional cultural values and family ties, social influences in the form of friends' and family's advice in buying are a dominant factor in bank selection.

However, the influence of social factors is not limited to an Oriental culture only. Thus, in many Western societies and others consumers can be influenced by social factors, but, the importance of each of these factors may differ from one society to another. Joy, Kim and Laroche (1991) indicate that the topic of ethnicity has emerged as an important construct in the study of consumer behaviour. The authors carried out a study to investigate the relationship between English-French Canadian ethnicity and the use (ownership) of financial services. The findings of their study confirmed that the predictor variable English-French Canadian ethnicity has an influence on the ownership of financial services in Canada. Thus, the findings of their study confirmed that there were differences in the use of financial services between the English-Canadian ethnicity and the French-Canadian ethnicity. In fact, the
authors concluded that ethnicity as a factor has a greater importance than factors such as income, family life cycle and family size in explaining the use (ownership) rate of financial instruments in Canada.

Meidan (1984) mentioned the following types of social factors:

1. Reference groups: The most significant factor under this category of influences is the consumer's need to relate to others. Thus, consumers are likely to be influenced by the opinions of their reference groups when, for example, they want to select a bank. In fact, in many cases the effect of the reference group on consumer behaviour is stronger than the effect, for example, of a bank advertisement shown on Television.

2. Family: The family of the consumer has a strong effect in determining his / her behaviour. For example, many consumers based their decision to select a bank on advice from family members. In other words, consumer's banking behaviour can be influenced strongly by this social factor. In many cases if one member of the family deals with a particular bank, other member of the same family will do the same. In banking, the notion "bank of the family" is well-established in many societies.

4.3.2 The Internal Factors:

Two types of factors can be classified as internal factors, these are the following:

1. The psychological factors:

The psychological factors can be divided into two groups:

1. Motivation and Perception:
The behavioural element of motive is a key part of consumer's basic psychological make-up. Engel and Blackwell (1982) mention that basically motives are behavioural dispositions to act towards goal-satisfactory objects. They are learned from past experience and serve to direct purchase or patronage decisions of individuals towards behavioural patterns that are perceived as satisfactory.

When consumers open, for example, a savings account at a particular bank they seek to satisfy some motivations. However, consumers can be motivated to act by different motives. For example, in the case of consumers' saving behaviour, some savers are motivated by higher rate of interest on their savings. While, others can be motivated by some other advantages they may gain by opening a savings account, such as keeping surplus money in a safe place for future use.

It can be said that each individual has a unique set of perceptions towards a particular, for example, bank or service. Pezzullo (1989) defines perception as the process by which people receive information (or stimuli) through the five senses, recognise it, and assign a meaning to it. How people perceive information depends on the nature of the information itself, on its context (that is, what surrounds it), and on conditions within themselves.

For example, consumers perceive banks as profit-making organisations, concerned about their interests and dealing with rich people. To the extent that in some cases, some lower class consumers prefer not to deal with banks, because, they feel that these institutions are established to serve rich people only. Taking that on board, many banks have started to change their image, in other words, attempting to change consumers perceptions of banks. They are doing this by telling different segments of consumers that they
have something to offer them, and that they are important to the bank as customers. In other words, banks attempt to give the impression that they are open for everybody, and all segments of society.

Consumers' buying behaviour in banking can be influenced or motivated by the relationship between the consumer and the bank. Kimball (1990) emphasises that the conflict between relationship and product, and the effect on consumer buying behaviour, is likely to be the most important marketing issue of the decade. Thus, in order to possess operational content by banks, their strategy must clearly define the target customer and how the bank will satisfy that customer's needs. The same author also mentions that market research has shown that a substantial proportion of consumers purchase multiple banking products from an institution they consider to be their primary bank. That is to say that when considering the purchase of an additional product, relationship-oriented customers first approach their primary bank to determine availability and price, thereby giving it the "right of first refusal". This buying behaviour on the part of relationship-oriented segment gives the primary bank an advantage in cross-selling additional products and winning a larger share of customers' total banking business. Kimball also mentions that market research has shown a high correlation between the bank where consumers keep their principle transactions account (e.g., checking account) and the one they designate as their primary bank. Therefore, banks adopted a relationship strategy focus on understanding their customers' banking behaviour and profiling them into different groups (segments) in order to satisfy the financial needs of each different segment and keep good relationship with them.
2. Attitude, Belief, and Intention:

Peter and Olson (1987) emphasise that today most researchers agree that the simple concept of attitude proposed by Thurstone and Fishbein is the most useful. That is, attitude represents person's favourable or unfavourable feelings toward the object in question. Beliefs (cognition) and intentions to behave (conation) are seen as related to attitude, but are separate concepts, not part of attitude itself.

However, attempts have been made by a number of scholars to develop a model for predicting consumers attitudes towards an object. In the following a summary discussion for the major Multi-Attribute Models of Consumer Attitude:

The Rosenberg Model:

Engel and Blackwell (1982) mentioned that the Rosenberg's model as originally published contained two variables: (1) values (equivalent to evaluative criteria) and their importance in arriving an attitude; and (2) perceived instrumentality (a complex term that simply estimates the degree to which the taking of a point of view or following an action will either enhance or block the attainment of a value).

The Fishbein Model:

Peter and Olson (1987) stated that the key proposition in Fishbein's theory is that the evaluation of the salient beliefs cause overall attitude. Simply stated, people tend to like objects they associate with "good" characteristics and dislike objects they believe to have "bad" ones. In Fishbein's multi-attribute model, overall attitude toward an object is a function of two factors: (1) the strengths of the salient beliefs associated with the object; and (2) the evaluations of those beliefs.
However, most of the marketing applications, or attempts to investigate consumer attitudes towards an object did not follow Fishbein or Rosenberg models, but, they use modified hybrid models in investigating consumer attitude.

Most of marketing attempts to investigate consumer behaviour have dealt with three concepts which are related to consumer attitude towards an object, these are:

(a) Cognition, which refers to the person's knowledge or belief about the object. For example, consumers attitudes towards savings accounts can be affected by the knowledge they have about this bank service and its advantages;

(b) Feeling, which refers to a person's favourable or unfavourable feelings towards the object. For example, consumers attitudes towards savings accounts can be affected by their feelings towards the idea of having a savings account, and their feelings about banks in general; and

(c) Conation, which refers to person's intention or actual behaviour towards the object. For example, person's decision to have or not to have a savings account is based on his / her intention.

2. Personal Factors:

Personal factors are the second set of internal factors, that have influences on consumer behaviour. In banking, however, the personal factors have proved to be of great importance in influencing consumer' banking behaviour.

Personal factors can be divided into three main types, these are: (1) Socio-economic, such as: income, educational level, and occupation; (2) Demographic, such as: sex, marital status, age,
family size, and life cycle stage; and (3) Other personality factors, such as: lifestyle, personality and self concepts.

4.3.3 The Consumer Buying Process:

The consumer buying process has been described by Meidan (1984) as the most critical part of understanding consumer behaviour in banking.

The consumer buying process is developed usually in stages. Pezzullo (1989) defined four main stages for consumer buying process, these are: (1) Unsatisfied need; (2) Purchase activity, which can be divided into: (a) Search for alternatives, and (b) Evaluation of alternatives; (3) Purchase decision; and (4) Post-purchase feelings.

While, Meidan (1984) divided the consumer buying process in banking into nine stages, these are: (1) Cognitive balance; (2) Cognitive imbalance; (3) Awareness; (4) Information Search; (5) Knowledge, (6) Evaluation behaviour; (7) Preference; (8) Decision; and (9) Post-purchase decision.

The two above mentioned models of consumer buying process refer to the fact that consumer buying process starts with unsatisfied need, and ends with purchase and post-purchase decisions. However, between the starting point and the end the consumer seeks information about the available alternatives in order to make an evaluation, before making his / her decision to buy a particular product or service.

However, in regard to consumers' saving behaviour, consumers' decisions to open a savings account can be summarized to consist of the following stages as shown in figure 4.4: (1) Consumers desire to save; (2) Searching for information about alternatives; (3)
Evaluating the available alternatives; (4) Making the decision by choosing a bank and an account; (5) Re-evaluating the decision in terms of satisfaction or dissatisfaction; and (6) Making the decision of keeping or changing the bank or the type of savings account.

Figure 4.4 Stages of Consumers' Savings Decisions

One of the main objectives of this study is to establish a method of investigating consumers' savings behaviour. Therefore, based on the discussions of consumer behaviour mentioned in this chapter, this study's method of investigating consumers' savings behaviour is shown in figures 4.4 and 4.5.

Figure 4.5 shows that consumer's saving behaviour is a product of a number of factors. These factors can be: (a) internal,
such as: attitude, perception, belief, socio-economic, and demographic; and (b) external, such as: the influence of family, friends, and culture. Then, due to the influences of these factors, consumer tends to take his/her decision, i.e., either to be saver or non-saver.

The method used in this study is based on investigating those internal and external factors that influenced savers' decisions to open savings accounts. Then, investigating the differences between savers, i.e., banked with savings accounts, and non-savers, i.e., non-banked, in terms of their attitudes, psychographic, socio-economic, and demographic characteristics.

The main conclusions of such a method in investigating the differences between savers and non-savers can be used to provide important explanations for consumers' saving behaviour. Also, they can be used by banks in working out how to influence and change consumers' saving behaviour. In other words, what should be done by banks to keep consumers who are banked with savings accounts, and influence non-banked to be savers, if that is possible.
Factors influence consumers' saving decisions

Consumers' decisions to be

Savers "banked"

Non-savers "non-banked"

Comparing between savers and non-savers in terms of:
1. Their attitudes towards savings, savings accounts, and other bank attributes.
2. Their financial psychographic characteristics.
3. Their socio-economic, and demographic characteristics.

What should be done by banks in order to influence consumers' savings behaviour

Figure 4.5: A method to investigate consumers' saving decisions.

Consumer Behaviour vs. Consumer banking Behaviour

Consumer behaviour is a complex activities and actions, some of them are physical and others are mental. Consumer banking behaviour is a part of consumer behaviour. Consumer decision to select a bank and to use a banking service can be influenced by sets of variables some are internal and others are external, as mentioned earlier in this chapter.

It can be suggested, therefore, that consumers behaviour with regard to banking is similar to their behaviour with regard to any other type of services or goods they use or buy. The only obvious difference here is the nature of banking services itself.
In other words, general models of consumer behaviour did not contain the aspects of bank and banking services attributes in their context. The attempt is made here to develop a model of consumer banking behaviour which contains the banking aspects as well as other consumer behaviour variables.

Banking services are intangible and distinct. Consumers of banking services tend to attach more importance to banking matters because they are related to their present and future financial interests. It is natural, therefore, to find consumers of banking services are very concerned about satisfying their want and needs when they deal with a bank.

Most models of consumer behaviour and methods of bank marketing research were developed in the Western Developed World. In other words, they are based on the specific environment where they were developed. In this study, the attempt is made to use these models and methods as a base to develop a model and a method to investigate consumer banking behaviour in one of the less developed countries, i.e., Iraq. In order to achieve that figures 4.4, 4.5 and 5.1 were developed further in order to design this study's model of investigating consumer banking behaviour in Iraq.

Figure 4.6 explains this research's model of investigating consumer banking behaviour in Iraq. It shows that a consumer decision to select a bank and a service is based on two sets of factors, external and internal. The external factors consist of aspects of bank attributes, such as bank's image, relationship with customers, advertisement, location, services, personnel, management and regulations.
Figure 4.6: A model of consumer behaviour in banking
Also, the external factors consist of: (a) the role of competition in the market between banks and other financial institutions; (b) social and cultural factors, such as the influence of family, friends and reference groups on consumers; and (c) government regulations. Government regulations in Iraq have a significant importance in influencing the banking activities of banks and consumers because the Iraqi banking system is state-owned and subject to direct intervention and control by the government, as explained in chapter two of this study.

The internal factors represent consumer's motives, attitudes, intentions, belief and three sets of consumer's characteristics, these are financial psychographic, socio-economic and demographic characteristics. Finally, this study's model of consumer banking behaviour, as presented in figure 4.6, explains that the consumer is the most important and central component of the model because he/she is the decision maker.

4.4 Conclusions:

In this chapter the theoretical aspects of consumer behaviour have been discussed. It has been concluded that consumer behaviour represents complex activities and actions, some physical and some mental.

Since the mid 1960s, especially in the era of the computer, consumer behaviour has grown up, and some specific and comprehensive models of consumer behaviour have been developed.

A model is a simplified representation of reality. Thus, a consumer behaviour model is the representation of reality by the model builder in a simplified way. This representation of reality,
in other word the model, can be verbal, mathematical, or pictorial, i.e., in maps or chart flows.

However a number of consumer behaviour researchers have developed a number of models for consumer behaviour. The most relevant models to this investigation are the comprehensive models of consumer behaviour. Therefore, three major comprehensive models of consumer behaviour have been discussed in this chapter. From the discussion of the comprehensive models of consumer behaviour the following conclusions can be made:

1. Each model contains three broad variables, these are the individual, the firm, and the environment.
2. All the models emphasize that the consumer is the central component of the model, because he is the decision-maker.
3. Through examining the major models of consumer behaviour, it can be said that consumer behaviour is a highly complex subject, which requires a great deal of investigation.
4. All the models are primarily experimental and designed for specific reasons, and they have not been tested through empirical investigations.
5. No model is a complete work, thus, models are subject to criticisms, modifications, and developments.

Consumer buying behaviour in banking, as one part of consumer behaviour, can be related to the comprehensive models of consumer behaviour. Thus, it has been concluded that consumer behaviour in banking can be influenced by three sets of factors, these are: (a) external; (b) internal; and (c) consumer buying process. However, all these factors combined have an important role in influencing
consumers' banking behaviour in terms of their selection of a bank, usage of a service, and other dealings with financial institutions.

Finally, the main objective of this chapter was to provide the theoretical background to understand this study's method of investigating consumers' saving behaviour. In other words, the objective was to develop a theoretical model, as presented in figures 4.4, 4.5, 4.6 and 5.1 to guide the empirical part of this research.
CHAPTER FIVE

THE FACETED DESIGN FOR THE EMPIRICAL STUDY

5.1 INTRODUCTION.

5.2 THE FACETED APPROACH FOR THE RESEARCH DESIGN.

5.3 THE MAPPING SENTENCE OF THE DEFINITION BY FACETS OF THE RESEARCH PROBLEM.

5.4 THE CONTEXT OF CONSUMERS' SAVING BEHAVIOUR IN IRAQ.
   5.4.1 CONSUMERS' ATTITUDES TOWARDS SAVINGS ACCOUNTS.
   5.4.2 BANK ATTRIBUTES.
   5.4.3 CONSUMERS' FINANCIAL PSYCHOGRAPHIC CHARACTERISTICS.

5.5 CONCLUSIONS.
5.1 Introduction:

The main objective of this chapter is to describe the research design, which has been adopted for this study. Kinnear and Taylor (1987) defined research design as the basis plan which guides the data collection, and analysis phases of the research project. It is the framework which specifies the type of information to be collected, the sources of data, and the data collection procedures.

On the other hand, Simon (1969) suggested that there is no standard or idealised research design to guide the researcher, since many different designs may accomplish the same objective. In other words, a researcher may decide to adopt a particular research design which he/she may think is the most appropriate to his/her study.

Therefore, a Faceted Design has been adopted in this investigation as the appropriate method of research design to guide this investigation. Therefore, this chapter reviews in brief the theory of Facet Design, and how it is used in approaching this research problem. In addition, it covers how the Faceted Design is applied in establishing the mapping sentence for the definition by facets and sub-facets of the research problem, and how it is used in exploring the extent of consumers' saving behaviour, and consumers' responses to the service of savings accounts and other bank attributes, which are the main focus of this research and its problem.

5.2 The Faceted Approach For The Research Design:

Applying the faceted approach in research design means in general dealing with the research problem in a systematic manner. A faceted approach provides the opportunity to investigate the research problem in a more scientific way by establishing the structural framework for the research.
Consumer researches in marketing mainly deal with attitudes, opinions, and other behavioural aspects. Such sets of ordinal scaled variables require measures, and they can usually be obtained from a sample or samples of population (respondents), through specific survey instruments, such as: interviews and/or questionnaires.

So, the main purpose of Facet Design has been defined by Guttman (1959) and Meidan (1975, A) as it tries to systemise a structure which identifies the different elements and variables of which the phenomenon to be studied is composed and by which it is shaped. Also, the same author outlined the problem which to be dealt with by applying Facet Design in the following:

(a) laying out the complete domain (i.e., universe of content) of the research, its limits and sub-parts;
(b) "sampling" systematically the universe of content of analysis; and
(c) analysing systematically the items sampled.

The pioneers of the concept of facet design are Guttman (1954) and his colleague Foa (1965), who were concerned with the selection of items for test construction and with the weakness in factor analytic procedures.

The faceted design as developed by Guttman, and as applied to the study of various phenomena by Foa is based on Fisher's approach to the design of experiments. This has been followed under the same principle (Fisher's approach) by many researchers, who undertook several behavioural studies in Psychology, Sociology, and other social sciences topics, such as the studies of: L. Guttman (1959), D. Elizur and L. Guttman (1967), P. Runkel and J. McGarth (1972), R. Payne (1976), I. Borg (1982), D. Canter (1982) and (1983), and R. Stone (1982).
In marketing research, in particular, one of the pioneer attempts to employ a faceted approach to investigate a particular marketing problem has been made by Meidan (1974). Then, followed by a limited number of attempts carried out by a few researchers to investigate various types of marketing research topics, such as: Moutinho (1982) applied the faceted design in his investigation of vacation tourist behaviour in Portugal. Harby (1985) used the faceted approach in investigating consumers' life insurance purchasing decisions in Egypt. Sayadian (1989) used the faceted design in a comparative analysis of marketing life insurance policies in the UK. Edris (1989) applied the faceted design in investigating the use of food nutrition labelling by consumers in the UK.

However, previous attempts conclude that the adoption of the faceted approach provides several advantages for the construction of the research and interpretation of its findings.

Canter (1983) said that a facet is a distinct way of classifying the universe of observations. Thus, one of the main advantages of the faceted approach lies on the formalisation of the process of defining the components of the problem, and testing whether a particular facet design produces similarity patterns which are confirmed by the empirical findings.

Also, Canter (1982) mentioned that facet theory utilises three important constituents of a scientific activity:

(a) formal definition of the variables being studied;
(b) hypothesis(es) of some specified relationships between the definition and aspects of empirical observations; and
(c) a rationale for the correspondence between (a) and (b).
Moreover, Meidan (1975, A) stated six advantages that can be gained by applying facet design in marketing research for the researcher and his research:

1. The whole possible universe of content of the research area is systematically presented.
2. The sample of items included into the chosen research project are logically selected.
3. The other items, and areas, left out and subject for further investigation are defined and specified.
4. The limitations of a research, because of area and (subject) self delimitations, are supposed to be known in advance.
5. The questionnaire is much easier to structure by putting each item (or element) of the facets into a question.
6. Finally, the analysis of the data collected by the questionnaire could be more systematic since the approximate relations between the items (variables) are known from the faceted analysis of the universe of content of the research.

However, the application of the faceted design in this investigation is based on the above mentioned theoretical background of facet design in terms of its definition, application, and advantages. The universe of content of the faceted design in this investigation represents consumers' attitudes towards commercial banking services in Iraq - as expressed by consumers' attitudes towards savings accounts and other bank attributes. In other words, the chief objective of this study is to investigate consumers' saving behaviour in Iraq. Therefore, the universe of content of this study represents consumers' saving behaviour in Iraq.
Thus, in order to explore the relevant facets to reach this aim, the following steps have been followed: (1) the relevant literature was surveyed; (2) responses are obtained from respondents through self-administered questionnaires, which contain all the variables under investigation; and (3) the variables whose interrelationship is hypothesized are introduced as elements of at least one of the facets.

So, based on the above assumptions and procedures three facets were generated to describe the content of consumers' saving behaviour in Iraq, with special reference to the service of savings accounts provided by commercial banks in Iraq, which are:

Facet D1: Consumers' attitudes towards savings accounts.
Facet D2: Bank attributes.
Facet D3: Consumers' financial psychographic characteristics.

5.3 The Mapping Sentence of the Definition by Facets of the Research Problem:

Shye (1978) defines a mapping sentence as "a verbal statement of the domain and the range of a mapping including connectives between facets as in ordinary language". It is also, a method of sampling the universe of content of the research problem to match the number of questions, i.e., variables / elements / items, to be answered by respondents.

Meidan (1975, A) explained that the faceted formula for a project can be written in a general form:

\[
P \times Q = R
\]

Where:

\( P \) = Population being studied;
\( Q \) = The direct product of different facets: A, B, C..., where
each of these facets are composed of elements:
al, a2, a3 ...., and b1, b2, b3 ....; and

R = The set of possible responses or results.

So, for example, in this investigation the direct product of different facets, i.e., (Q) of the above equation is represented by facets (parameters): A, B, C, D, and E. Therefore, the total elements which represent (Q) will be equal to the number of combinations of all elements in the five facets or (parameters):

\[ A \times B \times C \times D \times E = Q \]

\[ 3 \times 5 \times 3 \times 6 \times 1 = 2925 \] (see Figure 5.1)

In other words, it means the researcher should ask (2925) questions in order to clarify the content of all of the universe presented in Figure (5.1). However, a mapping sentence of the universe of content of the research problem is useful in this instance to reach a systematic limitation for the universe of content to be researched. Thus, by using the faceted design it was made possible to systematically limit the number of questions to be asked in this study's questionnaire to a more relevant and manageable set of questions.

Meidan (1975, A) in his attempt to explain that mentioned the delimitation of the universe of content of the research is: (a) possible; and (b) necessary because the whole content is presented in the mapping sentence. Moreover, the same author stated that such a delimitation (sampling) of the content of the research should reflect the interest of the researcher, the limitations on the resources, and time at his disposal, the formal title of his investigation and the character of the main hypotheses of the research.
**Figure 5.1: The Mapping Sentence for the Definition by Facets of Investigating Consumers' Saving Behaviour in Iraq.**

**A: Study of Attitudes (Behaviour)**
- a1 Cognition (belief / knowledge)
- a2 Emotion (feeling)
- a3 Conation (intention)

**B: Referent (Actor)**
- b1 Individual consumers
- b2 Bank's management
- b3 Bank's personnel
- b4 Government
- b5 Competitors

**C: Time**
- c1 present
- c2 future
- c3 past

**D: Content of Consumers' Saving Behaviour**
- D1 Consumers' attitudes towards savings accounts.
  - D1a Benefits of having a savings account.
  - D1b Reasons for having a savings account.
  - D1c Attributes of savings accounts.
  - D1d Aspects of waiting time.
  - D1e Access to savings.
- D2 Bank attributes.
  - D2a Aspects of bank-customer relationship.
  - D2b Bank advertising.
  - D2c Customer's confidence in a bank.
  - D2d Bank location variables.
  - D2e Bank competition variables.
  - D2f Bank building design variables.
  - D2g Bank loyalty variables.
- D3 Consumers' financial psychographic characteristics.
  - D3a The influence of reference groups.
  - D3b Personal financial psychographic characteristics.

**E: Objective**
- e1 Investigating consumers' saving behaviour (decisions) with special reference to is consumers' attitudes towards the idea of saving and having savings accounts at commercial (retail) banks in Iraq.

**F: Range**
- High
- Low
The mapping sentence for the faceted design for this investigation can be summarized as follows:

1. The condensation of the mapping sentence:

The mapping sentence for the faceted design for this investigation can be summarized as follows:

The Attitude (A) of the Referent (B) as perceived by the referent at Time (C) towards the aspects of Content (D) for the main Objective (E) where the range (F) has a Range (R).

Thus, the domain of content under investigation is represented by the first five facets (i.e. A, B, C, D, and E). Facet (F) is the range of responses in terms of how each respondent expressed his/her attitudes in response to the survey questions, which are measured by 5-point Likert Scale (see Figure 5.1).

2. The resources for designing the mapping sentence:

In order to design the mapping sentence for this study's facet design, four resources were used, these are:

1. Utilisation of the literature review, i.e., previous studies in bank marketing;
2. Pre-testing interviews with a sample of consumers conducted in Iraq, before starting the actual data collection procedures;
3. Observation for the variables that may influence consumers' saving behaviour (decisions) in Iraq; and
4. The research hypotheses, thus, the interrelationships between variables that have been hypothesized mean that each variable should be an element of at least one facet.
In the following a description for each facet included in the mapping sentence of this investigation, as described in figure 5.1, is provided:

Facet (A) Attitudes:

As has been mentioned in chapter four of this study Peter and Olson (1987), in their review of attitude definitions, conclude that most definitions of attitude have one thing in common that: they refer to the person's effective reaction to, or overall evaluation of, an object or concept. Thus, today, most researchers agree that three concepts are related to attitude which are:

(a) Cognition, which refers to the person's knowledge about the object;
(b) Feeling, which refers to a person's favourable or unfavourable feelings toward the object; and
(c) Conation, which refers to person's intention or actual behaviour toward the object.

These three related components to attitude are constructed Facet (A) of this research, as follows (see also Figure 5.1):

a1 Cognition (Belief).
a2 Feeling (Emotion).
a3 Conation (Intention).

Facet (B) Referents:

Facet (B) refers to the possible referents or actors, whose attitudes toward the variables under investigation is measured, and the possible referents in this investigation are:

b1 Consumers (individuals).
b2 Bank's management.
Bank's personnel (employees).
Government.
Competitors.

**Facet (C) the Time:**
Facet (C) represents the time at which the referent's attitudes are referred, i.e.:

c1 Present.
c2 Past.
c3 Future.

**Facet (D) Context of Consumers' Saving Behaviour in Iraq:**
Facet (D) refers to consumers' attitudes towards the concept of saving in general, and savings accounts in particular. Together with, other bank attributes might influence consumers' saving behaviour, with reference to other personal financial psychographic characteristics, which are expected to effect consumers' saving behaviour. So, this facet contains the following:

D1 Consumers' attitude towards savings accounts.
D2 Bank attributes.
D3 Consumers' financial psychographic characteristics.

**Facet (E) Research Objectives:**
Facet (E) in this study refers to this study's chief objective of investigating consumers' saving behaviour (decisions) in Iraq.
5.4 The Context of Consumers' Saving Behaviour:

This section illustrates in detail the main facets, sub-facets, and elements, which structured the context of consumers' saving behaviour in Iraq, i.e., Facet (D).

The formulation of the content of Facet (D), as mentioned earlier in this chapter, was based on the review of the literature related to bank marketing, and on a number of preliminary interviews with individual consumers.

Thus, the context of consumers' saving behaviour in this study, as shown in table 5.1, contained the following facets, sub-facets, and elements:

Facet D1: Consumers' attitudes towards savings accounts:

This facet included a number of sub-facets, each of them consisted of a number of elements (items), that are related to consumers' attitudes towards the idea of having a savings account. However, the sub-facets, and elements, which consisted this facet are the following:

Sub-facet Dla: Benefits of having a savings account:

This sub-facet contained nine elements, these are:

1. Savings help to meet increasing living expenses.
2. Savings help to beat inflation.
3. Savings help to make sure family is protected in case of emergencies.
4. Savings help to build up a retirement fund.
5. Savings help to increase the overall standard of living.
6. Savings help in buying property for the family.
7. Savings are an investment.
8. Savings help to start a new business.
9. Savings help to cover marriage expenses.

The above mentioned nine elements, which were included in this sub-facet, represent a number of benefits (advantages), which can be gained by consumers from having a savings account in Iraq.

Sub-facet Dlb: Reasons for having a savings account:

Three elements were included in this sub-facet, these are:

1. I feel my money is safe.
2. A savings account is a good method to keep surplus of money.
3. Own decision (personally motivated).

The above mentioned reasons for having a savings account represent some possible reasons, which may motivate consumers to open a savings account in Iraq.

Sub-facet Dlc: Attributes of savings accounts:

This sub-facet consists of five elements, these are:

1. Convenient hours of operation for savers.
2. Special lines for savings accounts holders.
3. Accuracy of bank transactions.
5. Easily of processing bank transactions.

The above mentioned five elements were included in this sub-facet because they represent some issues that are related to savings accounts attributes in terms of convenience, accuracy, and confidentiality of savings accounts transactions in Iraq.

Sub-facet Dld: Aspects of waiting time:

This sub-facet was represented by two elements, these are:

1. Length of time required to process transactions.
2. Length of waiting time before being served.

The above mentioned two elements were used in this study, because they are related to the time factor, which is very important.
for consumers of banking services. Thus, a bank's ability to serve consumers in the shortest possible waiting time plays an important role in making the customer satisfied. In other words, consumers of banking services now want fast services and feel very unhappy with any delay when they visit their banks.

Sub-facet D1c: Access to savings:

This sub-facet consisted of two elements, these are:

1. I can easily deposit savings at the bank.
2. I can easily withdraw money from the bank.

These two elements were included in this study, because consumers' access to their savings accounts, in terms of depositing and withdrawing money, represents a crucial factor, that may influence their decisions to deal with a particular bank, and open a savings account at it.

Facet D2: Bank attributes:

Consumers' decisions to select a particular bank, in order to open, for example, a savings account at it, can be influenced by some bank attributes (characteristics). However, in this study the facet bank attributes consisted of seven sub-facets, and each of those sub-facets included a number of elements, and each of those elements represents a particular dimension of bank attributes. Thus, the seven sub-facets, which were included in this facet, with the elements they consist of, are as follows:

Sub-facet D2a: Aspects of bank-customer relationship:

This sub-facet contained eleven elements that are related to the aspects of consumer satisfaction with their relationships with the bank's staff in terms of their abilities, and the facilities they provide to customers. These elements are the following:

1. Bank personnel are concerned about each of their customers.
2. Bank personnel are knowledgeable.
3. Bank managers listen to their customers' needs.
4. There is a good interaction between staff and customers.
5. Bank personnel are friendly.
6. Bank personnel give advice to customers.
7. Bank personnel are willing to explain the services offered.
8. Bank management is always available for consultation.
10. Complaints are dealt with.
11. Bank personnel make me feel important as a customer.

Sub-facet D2b: Bank advertising:

It is known that advertising plays an important role in influencing consumers' buying behaviour. However, advertising in banking is a very important source of information for consumers about the banks, and the services they provide. It is also one of the most effective tools used by banks to influence consumers, and win them from the market. Therefore, five elements were included in this sub-facet, and they were selected because, they are the only used methods of advertising in Iraq, these are:

1. Bank advertises on T.V.
2. Bank advertises on Radio.
5. Personal contact by bank personnel.

Sub-facet D2c: Customer's confidence in bank:

The elements, which were included in this sub-facet, represent some issues that are related to the aspects of customer's confidence in a bank. Five elements were included in this sub-facet, and these are:
1. Bank has a large building.
2. Bank is well-known.
3. Bank has been well-established for many years.
4. Bank has a good reputation.
5. Bank has many branches.

Sub-facet D2d: Bank location variables:

This sub-facet contained five elements, and each of them represented an aspect of convenience of bank location. Thus, the location of the bank, and its branches is an important characteristic, and has a great influence on consumers' selection of a bank. Therefore, five elements, that are related to convenience of bank location were used in this study, and these are:

1. Bank is located near shopping centre.
2. Bank is located near home.
3. Bank is located near place of employment.
4. Bank has many branch locations.
5. Bank is located near public transportations.

Sub-facet D2e: Bank competition variables:

This sub-facet contained five elements, that are related to the aspects of competition between banks. Among a large number of competition variables, the selected five variables were included in this study, because they are the most known competition elements between banks in Iraq. Thus, as mentioned earlier in this investigation (see chapter three), competition between banks in Iraq is very poor. Therefore, only five competition elements were thought to be of value for this investigation in terms of influencing consumers' saving decisions, i.e., to open / or not to open a savings account at a particular bank in Iraq. However, the selected five variables are the following:
1. Bank has full-range of services.
2. Bank provides regular statements of savings balances.
3. Bank has competitive service charges.
4. Bank provides different promotions for savers.
5. Bank pays higher interest on savings.

Sub-facet D2f: Bank building design variables:

This sub-facet covers the area of the characteristics of bank building design, in order to uncover its importance to consumers. Four elements were included in this sub-facet. Each one of them was used to find the extent to which consumers' decisions can be influenced by the bank building design and its characteristics, when they select a bank to put their savings in it. However, the four elements, which were included in this sub-facet are the following:

1. Bank has parking facilities for customers.
2. Easy entrance to and exit from bank building.
3. Bank building has modern design.
4. Availability of waiting areas inside the bank's building.

Sub-facet D2g: Bank loyalty variables:

This sub-facet consisted of two elements, that are related to customers' loyalty to a bank. Each of these elements represents a reason, which may lead a customer to be loyal to a particular bank. However, these two elements are the following:

1. I feel I own part of the bank.
2. I already use other services at the bank.

Facet D3: Consumers' financial psychographic characteristics:

This facet is related to consumers' personal financial psychographic characteristics. In fact, the decision was made to choose only the most relevant of those characteristics to the subject of consumers' saving behaviour in Iraq. However, this facet
consisted of two sub-facets, and each of them consists of a number of elements, as follows:

**Sub-facet D3a: The influence of reference groups:**

Consumers' saving behaviour (decisions) can be influenced by their reference groups in terms of the advice they may receive from them. Therefore, two types of possible reference groups were included in this sub-facet, and these are:

1. Advice from friends.
2. Advice from family members.

**Sub-facet D3b: Personal financial psychographic characteristics:**

This sub-facet contained five consumers' financial psychographic characteristics. Each one of them was used in order to provide better understanding for respondents financial thinking in terms of the value of money, savings, and credit. However, the five elements, which were included in this sub-facet, are the following:

1. I am a good saver.

   Respondents were asked to answer this question, mainly because in Iraq not all savers have savings accounts in banks or other financial institutions. Thus, some people are used to saving their surplus money not at banks, but, at home in a safe place. While, others buy gold in terms of jewels, and other methods of transferring money into valuable things for future use. Therefore, the purpose of this question was to find out if some of the non-savers in terms of having bank accounts are indeed savers.

2. I like to pay cash for everything I buy.

3. To buy anything, other than a house on credit is unwise.

4. A person can save a lot of money by looking for the lowest possible prices when shopping.

5. It is good to have a savings account because it is useful.
Table 5.1: The Context of Consumers' Saving Behaviour (Decisions) in Iraq (Facets, Sub-facets, and Elements).

<table>
<thead>
<tr>
<th>No of Facet</th>
<th>Title of Facets, Sub-facets, and Elements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facet D1</td>
<td>Consumers' attitudes towards savings accounts:</td>
</tr>
<tr>
<td>Dla</td>
<td>Sub-facet: Benefits of having a savings account:</td>
</tr>
<tr>
<td></td>
<td>v1 Savings help to meet increasing living expenses.</td>
</tr>
<tr>
<td></td>
<td>v2 Savings help to beat inflation.</td>
</tr>
<tr>
<td></td>
<td>v3 Savings help to make sure family is protected in case of emergencies.</td>
</tr>
<tr>
<td></td>
<td>v4 Savings help to build up a retirement fund.</td>
</tr>
<tr>
<td></td>
<td>v5 Savings help to increase the overall standard of living.</td>
</tr>
<tr>
<td></td>
<td>v6 Savings help in buying property for family accommodation.</td>
</tr>
<tr>
<td></td>
<td>v8 Savings are an investment.</td>
</tr>
<tr>
<td></td>
<td>v12 Savings help to start a new business.</td>
</tr>
<tr>
<td></td>
<td>v13 Savings help to cover marriage expenses.</td>
</tr>
<tr>
<td>Dlb</td>
<td>Sub-facet: Reasons for having a savings account:</td>
</tr>
<tr>
<td></td>
<td>v7 I feel my money is safe.</td>
</tr>
<tr>
<td></td>
<td>v16 A savings account is a good method to keep surplus of money.</td>
</tr>
<tr>
<td></td>
<td>v19 Own decision (personally motivated).</td>
</tr>
<tr>
<td>Dlc</td>
<td>Sub-facet: Savings accounts attributes:</td>
</tr>
<tr>
<td></td>
<td>v33 Convenient hours of operation for savers.</td>
</tr>
<tr>
<td></td>
<td>v34 Special lines for holders of savings accounts.</td>
</tr>
<tr>
<td></td>
<td>v35 Accuracy of bank transactions.</td>
</tr>
<tr>
<td></td>
<td>v36 Confidentiality of bank transactions.</td>
</tr>
<tr>
<td></td>
<td>v37 Easily of processing bank transactions.</td>
</tr>
<tr>
<td>No of Facet</td>
<td>Title of Facets, Sub-facets, and Elements</td>
</tr>
<tr>
<td>-------------</td>
<td>------------------------------------------</td>
</tr>
<tr>
<td>Dld</td>
<td>Sub-facet: Aspects of waiting time:</td>
</tr>
<tr>
<td></td>
<td>v31 Length of time required to process</td>
</tr>
<tr>
<td></td>
<td>transactions.</td>
</tr>
<tr>
<td></td>
<td>v32 Length of waiting time before being served.</td>
</tr>
<tr>
<td>Dle</td>
<td>Sub-facet: Access to savings:</td>
</tr>
<tr>
<td></td>
<td>v9 I can easily deposit savings at the bank.</td>
</tr>
<tr>
<td></td>
<td>v10 I can easily withdraw money from the bank.</td>
</tr>
<tr>
<td>Facet D2</td>
<td>Bank attributes:</td>
</tr>
<tr>
<td>D2a</td>
<td>Sub-facet: Aspects of bank-customer relationships:</td>
</tr>
<tr>
<td></td>
<td>v20 Bank personnel are concerned about each of their customers.</td>
</tr>
<tr>
<td></td>
<td>v21 Bank personnel are knowledgeable.</td>
</tr>
<tr>
<td></td>
<td>v22 Bank managers listen to their customers' needs.</td>
</tr>
<tr>
<td></td>
<td>v23 There is a good interaction between staff and customers.</td>
</tr>
<tr>
<td></td>
<td>v24 Bank personnel are friendly.</td>
</tr>
<tr>
<td></td>
<td>v25 Bank personnel give advice to customers.</td>
</tr>
<tr>
<td></td>
<td>v26 Bank personnel are willing to explain the services offered.</td>
</tr>
<tr>
<td></td>
<td>v27 Bank management is always available for consultation.</td>
</tr>
<tr>
<td></td>
<td>v28 Friendliness of tellers.</td>
</tr>
<tr>
<td></td>
<td>v29 Complaints are dealt with.</td>
</tr>
<tr>
<td></td>
<td>v30 Bank personnel make me feel important as a customer.</td>
</tr>
<tr>
<td>D2b</td>
<td>Sub-facet: Bank advertising.</td>
</tr>
<tr>
<td></td>
<td>v52 Bank advertises on T.V.</td>
</tr>
<tr>
<td></td>
<td>v53 Bank advertises on Radio.</td>
</tr>
<tr>
<td></td>
<td>v54 Bank advertises in Newspapers.</td>
</tr>
<tr>
<td>No of Facet</td>
<td>Title of Facets, Sub-facets, and Elements</td>
</tr>
<tr>
<td>-------------</td>
<td>------------------------------------------</td>
</tr>
<tr>
<td>D2c</td>
<td>v55 Bank advertises in Magazines.</td>
</tr>
<tr>
<td></td>
<td>v56 Personal contact by bank personnel.</td>
</tr>
<tr>
<td></td>
<td>Sub-facet: Customer's confidence in bank.</td>
</tr>
<tr>
<td></td>
<td>v47 Bank has large building.</td>
</tr>
<tr>
<td></td>
<td>v48 Bank is well-known.</td>
</tr>
<tr>
<td></td>
<td>v49 Bank has been well-established for many years.</td>
</tr>
<tr>
<td></td>
<td>v50 Bank has a good reputation.</td>
</tr>
<tr>
<td></td>
<td>v51 Bank has many branches.</td>
</tr>
<tr>
<td>D2d</td>
<td>Sub-facet: Bank location variables:</td>
</tr>
<tr>
<td></td>
<td>v38 Bank is located near shopping centre.</td>
</tr>
<tr>
<td></td>
<td>v39 Bank is located near home.</td>
</tr>
<tr>
<td></td>
<td>v40 Bank is located near place of employment.</td>
</tr>
<tr>
<td></td>
<td>v41 Bank has many branch locations.</td>
</tr>
<tr>
<td></td>
<td>v43 Bank is located near public transportations (Bus Stops, Taxi Stands).</td>
</tr>
<tr>
<td>D2e</td>
<td>Sub-facet: Bank competition variables:</td>
</tr>
<tr>
<td></td>
<td>v57 Bank has full-range of services.</td>
</tr>
<tr>
<td></td>
<td>v58 Bank provides regular statements of savings balances for customers.</td>
</tr>
<tr>
<td></td>
<td>v59 Bank has competitive service charges (such as interest on loans and other types of charges).</td>
</tr>
<tr>
<td></td>
<td>v60 Bank provides different promotions for savers (such as free prize draws).</td>
</tr>
<tr>
<td></td>
<td>v15 Bank pays higher interest on savings.</td>
</tr>
<tr>
<td>D2f</td>
<td>Sub-facet: Bank building design variables:</td>
</tr>
<tr>
<td></td>
<td>v42 Bank has parking facilities for customers.</td>
</tr>
<tr>
<td></td>
<td>v44 Easy entrance to and exit from bank building.</td>
</tr>
<tr>
<td></td>
<td>v45 Bank building has modern design.</td>
</tr>
</tbody>
</table>
### Table 5.1 (continued)

<table>
<thead>
<tr>
<th>No of Facet</th>
<th>Title of Facets, Sub-facets, and Elements</th>
</tr>
</thead>
<tbody>
<tr>
<td>D2g</td>
<td>v46 Availability of waiting areas inside the bank's building for customers.</td>
</tr>
<tr>
<td></td>
<td>Sub-facet: Bank loyalty variables:</td>
</tr>
<tr>
<td></td>
<td>v11 I feel I own part of the bank.</td>
</tr>
<tr>
<td></td>
<td>v14 I already use other services at this bank.</td>
</tr>
<tr>
<td>Facet D3</td>
<td>Consumers' financial psychographic characteristics:</td>
</tr>
<tr>
<td>D3a</td>
<td>Sub-facet: The influence of reference groups:</td>
</tr>
<tr>
<td></td>
<td>v17 Advice from friends.</td>
</tr>
<tr>
<td></td>
<td>v18 Advice from family members.</td>
</tr>
<tr>
<td>D3b</td>
<td>Sub-facet: Personal financial psychographic characteristics:</td>
</tr>
<tr>
<td></td>
<td>v61 I am a good saver.</td>
</tr>
<tr>
<td></td>
<td>v62 I like to pay cash for everything I buy.</td>
</tr>
<tr>
<td></td>
<td>v63 To buy anything, other than a house on credit is unwise.</td>
</tr>
<tr>
<td></td>
<td>v64 A person can save a lot of money by looking for the lowest possible prices when shopping.</td>
</tr>
<tr>
<td></td>
<td>v65 It is good to have a savings account because it is useful.</td>
</tr>
<tr>
<td>Facet E</td>
<td>Research chief objective:</td>
</tr>
<tr>
<td>e1</td>
<td>Investigating consumers' saving behaviour (decisions) in Iraq.</td>
</tr>
</tbody>
</table>

### 5.5 Conclusions:

In this chapter, a research design for this investigation has been developed and formulated. The faceted approach was adopted as a research design to deal with the research problem of investigating consumers' saving behaviour in Iraq, with special reference to opening savings accounts at commercial banks in Iraq.
The survey of the related literature and other informal preliminary interviews with individual consumers in Iraq, were of great help in the process of formulating the facets, sub-facets, and elements, which were mentioned in this chapter.

However, in summary, the faceted approach which has been described in this chapter, concludes that this study is:

A Study of the Cognitive aspects (a1), of Individual Consumers (b1), as perceived by them at present Time (c1), with regard to the aspects of Context of Consumers' Saving Behaviour in Iraq (D) (all the elements), towards the Study Chief Objective of investigating consumers' attitudes towards saving (saving decisions), with special reference to opening savings accounts at commercial banks in Iraq (e1).
CHAPTER SIX

DATA COLLECTION AND SAMPLING METHODS

6.1 INTRODUCTION.

6.2 DATA MEASUREMENTS.
   6.2.1 MEASUREMENTS OF RESPONDENTS ATTITUDES.
   6.2.2 MEASUREMENTS OF RESPONDENTS CHARACTERISTICS.

6.3 DATA COLLECTION.
   6.3.1 METHODS OF DATA COLLECTION.
   6.3.2 DEVELOPMENT OF THE QUESTIONNAIRE.

6.4 SAMPLING.
   6.4.1 METHODS OF SAMPLING.
   6.4.2 SAMPLE SIZE.

6.5 SUMMARY.
6.1 Introduction:

The main objective of this chapter is to underline the theoretical and practical methods used in the process of data collection from respondents. Thus, a detailed review for the types of data, methods of data collection, and sampling methods used is presented in this chapter.

In addition, an introduction to the subject of data measurements is also presented. Such an introduction is presented in order to provide an understanding of the types of data used, and how it is treated in the process of data collection and analysis.

6.2 Data Measurements:

This study, as a marketing research investigation, was oriented towards consumers' attitudes and characteristics. It was based mainly on primary data collected from a sample of respondents through questionnaires. Thus, a questionnaire was used in order to explore consumers' attitudes towards (a) the idea of saving; (b) the service of savings accounts provided by commercial banks; (c) some bank attributes may effect consumers' attitudes; and (d) to investigate consumers' profile characteristics and its importance in influencing consumers' saving decisions.

Data measurement has been defined by Kerlinger (1973) as the assignment of numerals or numbers to objects or events according to rules. In this definition the word numeral means any symbol that is associated with an object or event, but does not have a quantitative meaning.

Thus, in this study numeric symbols were used to assign the profile characteristics of consumers. For example, in order to measure the variable "sex of respondents" in this study, "0" was
assigned to each male respondent, and "1" was assigned to each female respondent.

Therefore, it can be said that, the main purpose of data measurement is to give numerals or numbers to the variables used in such a way that the results reflect the true situation in the real world.

However, before moving to another section in this chapter it is important to mention the levels of data measurements. Stevens (1946) mentioned that in social science research we recognize four levels of measurements and they are the following:

Nominal measurement:

In this level of measurement, numerals or other symbols are assigned to objects without quantitative meaning. For example, in the case of sex of respondent "0" for male, and "1" for female. Thus, nominal measurement can be used to measure variables such as: sex, race, religion, class standing, and marital status.

Ordinal measurement:

Tull and Hawkins (1990) define ordinal measurement as it represents numbers, letters or other symbols used to rank items. These items can be classified not only as to whether they share some characteristics with another item, but, also whether they have more or less of this characteristic than some other objects.

In other words, the ordinal data indicates the relative position of two or more items on some characteristics, but, not the magnitudes of the differences between the items. Ordinal measurements can be used to measure quality rating, ranking preference, classify items, and arrange categories in some meaningful order.
Interval measurements:

Berger and Patchner (1988) indicated that interval measurement has all the properties of both nominal and ordinal measurement: categorisation and rank ordering. Interval measurement has an additional characteristic: numerically equal distance on interval measures indicate equal differences in the property being measured. This characteristic of equal interval allows us to make valid statements about differences between and among categories or values.

However, different types of data can be treated as measured by interval scale used in marketing research such as: level of knowledge about brands, and index numbers. In addition, another type of marketing research data, i.e., attitude measures is treated as interval scaled data. For example, a Likert scale, which requires respondents to state the rate of importance they attached to a statement, or their degree of agreement (satisfaction) or disagreement (dissatisfaction) with a statement by selecting a response from a list.

Ratio measurement:

The ratio scale is a sub-class of the interval scale. In other words, it has all the characteristics of nominal, ordinal, and interval measures: categorisation, rank order, and equal intervals with a meaningful zero base.

There is a number of variables which can be treated as ratio variables such as: age, income, weight, height, the number of years of marriage, and the number of pages in a book.

However in this study two broad types of primary data are collected from respondents: consumers' attitudes and consumers' profile characteristics, i.e., their socio-economic and demographic
characteristics. In the following a description to the data, which were used in this study, and the methods of data measurement, which were used to measure the collected data from respondents.

6.2.1 Measurements of Respondents' Attitudes:

It has been concluded in chapter five of this study, that today most researchers agree that three concepts are related to attitude, these are: (a) Cognition, which refers to a person's knowledge about the object; (b) Feeling, which refers to a person's favourable or unfavourable feelings towards the object; and (c) Conation, which refers to person's intention or actual behaviour towards the object. Therefore, these three related concepts to consumers' attitudes were implemented in this study through facets D1, D2, and D3 of this research facet design (see chapter five).

However, regarding the subject of attitude measurements, there are a number of scaling techniques in attitude measurements, which can be used in this regard. Baran (1976) explains that while there is a large number of scaling techniques, bank marketing researchers tend to use the following most frequently: (a) Ranking; (b) Numerical rating; (c) Verbal rating; (d) Likert scales; and (e) Semantic differential scales. However, among the above mentioned scaling techniques, the decision was made to use the Likert scale in this study, in order to measure the attitudinal data.

The Likert Scales:

In this type of attitude scaling respondent is asked more than one question in order to determine how a respondent feels about something. For example, in this study respondents were asked to indicate the rate of importance they attach to a series of statements related to consumers' saving behaviour.
Thus, in this research and regarding the measurement of respondents' attitudes, a 5-point Likert scale was used to measure the attitudinal data gathered from respondents. Respondents were asked to indicate the rate of importance or degree of agreement with a number of statements from "1" very important / or strongly agree to "5" not important at all / or strongly disagree.

In addition, for the purpose of the requirements of data analysis statistical techniques, the 5-point Likert scale was used in measuring the respondents' attitudes, because data measured in this scale can be treated as interval data.

Tull and Hawkins (1990) suggested that another common type of marketing research data generally treated as interval scale is attitudes measures. A Likert scale, for example, requires the respondents to state their degree of agreement or disagreement with a statement by selecting a response from a list. Most researchers treat the data from such scales as if they were equal interval in nature, since the results of most standard statistical techniques are not affected by small deviation from the interval requirements.

In addition to the above, the Likert scale was used in this study because: (a) it is easy to construct; and (b) it is easy to understand by respondents. Thus, during the pre-testing of this study's questionnaire, it had been concluded that respondents in Iraq were very satisfied with the 5-point Likert scale, and they mentioned that it is very easily understood. In fact, the obvious reason for such a response towards the Likert scale is because, respondents in Iraq, as in many Third World countries, dislike complicated questions and during the pre-testing of the questionnaire in Iraq the Likert scale was found to be the easiest to understand by respondents. Therefore, they were willing to answer
the questionnaire, because the questions were not complicated in their opinions.

In addition to that, the multiple-choice answer method, i.e., the Likert scale, was used in this study because: (a) it is applicable with most statistical analytical techniques; (b) it is easier to handle; and (c) the choice of respondents helps in reaching respondent's intensity of attitudes regarding the element of universe of content analysed.

However, during the process of data collection, one limitation of using the Likert scale technique was noticed. That was, the questionnaire took a long time to complete by respondents. Generally speaking, taking into account the characteristics of the respondents in Iraq, i.e., generally unfamiliar with mail survey, the Likert scale proved to be successful as a method of attitudinal data measurement in this investigation.

6.2.2 Measurements of Respondents Characteristics:

In this study seven consumers' profile characteristics, i.e., socio-economic and demographic characteristics, were used. These predictors (variables) are the following: Sex of respondent; Age of respondent; Marital status of respondent; Family size group of respondent; Family income group; Household head's educational level; and Household head's occupation.

However, in terms of data measurement and as explained earlier in this chapter, these predictors consisted of nominal and ratio scale variables. Thus, the variables sex of respondent, and marital status of respondent are classified as nominal data. While, the remaining five predictors used in this study are classified as ratio data, these are: age of respondent, family size of respondent,
family income of respondent, educational level (years) of respondent, and occupation of respondent.

The range of questions, i.e., the possible answers, that are related to respondents' socio-economic and demographic characteristics, varied from question to question, and was between 1 and 10.

6.3 Data Collection:

The most important task in conducting a marketing research is the actual gathering of data related to the research problem. However, data can be classified into two main types:

1. Secondary data:

Secondary data is a formal data already available from formal sources such as: previous researches, banks' publications, periodicals which can be collected whenever it is required to provide a better understanding for the research problem.

2. Primary data:

Clowe and Diina (1978) define primary data as information that has to be developed and does not exist in any form, or if it does exist, it is not available for the researcher. This means that such a data has to be created by the researcher from the field of study by using specific methods that best serve his / her study objectives. However, there are three types of primary data: observational, experimental, and survey.

a. Observational data can be gathered by observing objects. For example, a market researcher can stand at a shopping centre and observe the number of people entering a particular super store, and analyse them according to their age groups, sex, and time of entering.
b. Experimental data is another type of observational data, with the difference of observing people and measuring changes in their behaviour. For example, as with the same example above the researcher tries in addition to observe the number of people entering a particular super store, but, registers the number of people who came out of the store with goods, and the number of those without.

c. Survey data is the most useful and complex type of data in marketing research. However, survey data can be obtained only by establishing a direct communication link with respondents.

6.3.1 Methods of data collection:

In bank marketing research primary data collection refers mainly to conduct some type of survey research. In other words, it means asking respondents questions through one or more of primary data collection methods (instruments).

There are mainly three methods of communication with respondents in order to collect the required primary data from them.

The first method of primary data collection is personal interviews. Personal interviews simply conducted by trained interviewers with respondents in a suitable place such as their home or office.

The second method is telephone interviews, such interviews are simply carried out by calling respondents through their personal telephone numbers and asking them the stated questions.

The third method is mail questionnaires. Thus, prepared questionnaires containing the stated questions can be sent to respondents at their fixed addresses. Then, respondents can answer them at their convenience and return them in the provided addressed envelopes.
In this study a mail survey was conducted in order to collect the required primary data from respondents. However, because of the low standard of the post office services in the country of the field study, i.e., Iraq, all questionnaires were handed over to respondents in their home or office addresses. In addition, assistance was given to respondents in order to explain some formalities and easing some difficulties facing respondents in answering the questionnaires.

The decision was made to use a mail questionnaire, because other methods of data collection, such as: personal and telephone interviews, are less known, impractical, and expensive in terms of time and money in Iraq. For example, using telephone interviews as a method of data collection in Iraq is impractical because: (a) There are no up-to-date telephone directories available, and (b) many people do not have a telephone set at home. Therefore, conducting telephone interviews in such a situation is impossible, and has a great effect on sample representativeness.

Therefore, it was concluded that a simple and easy to understand questionnaire, which could be handed over to respondents personally and accompanied with personal assistance to ease difficulties that might face respondents, was the only workable method to collect the required primary data from respondents in Iraq.

In addition to the above, the mail questionnaire method of data collection has some advantages and some disadvantages. The main advantages of mail questionnaire method, as described by Clowe and Diina (1978) are the following:
1. Wider and more representative distribution of sample is possible.
2. Cost per questionnaire is relatively low.
3. People are more open to answer questions.
4. No interviewer bias is expected, because the answers are in respondents' own words.
5. Respondent can answer at his / her leisure time and has more time to think about each question.
6. Certain segments of population are more easily approachable, such as: those segments of people, who do not have telephone sets.

While, the main disadvantages of the mail questionnaire method are the following:

1. It requires longer time.
2. The ability to handle complex questionnaire through mail survey is poor.
3. Bias due to non-response is often indeterminate.
4. Control over questionnaire may be lost.
5. Interpretation of omissions is difficult.
6. Only those interested in the subject may reply.
7. Questionnaire in most cases must be short.
8. Certain segments of population are not approachable, for example, illiterates.

However, in this study an attempt was made to benefit from the advantages of the mail questionnaire method, and overcome its disadvantages. This was done through taking into account respondents' characteristics in Iraq and the applicability of each data collection method in Iraq. Providing personal assistance for respondents was of great value in overcoming the disadvantages of
using a mail questionnaire method for the purpose of data collection.

6.3.2 Development of the Questionnaire:

1. The basis of the questionnaire:

   It has been mentioned earlier in chapter five of the present study that one of the advantages of using the faceted design, is that the questionnaire is much easier to structure simply by putting each item (or element) of the facets into a question. Therefore, the basis for this study's questionnaire is the facets, sub-facets, and the elements of this research's faceted design as described in figure 5.1 and table 5.1. In other words, the faceted design helped in identifying the questions to be asked and included in the research's questionnaire. In addition, the main resources for formulating the questionnaire in terms of its contents, i.e., questions, are the following:

   (a) utilisation of the literature review, i.e., previews studies in bank marketing; (b) observation of the variables that may influence consumers' saving behaviour in Iraq; (c) pre-testing the questionnaire through the pilot interviews carried out with a sample of 50 Iraqi respondents before embarking into the real data collection process; and (d) the mapping sentence of the faceted design of the present study, as shown in figure 5.1.

   The first stage in developing the questionnaire is to identify the items (variables), which will be transformed into questions to be included in the questionnaire. In this study and as mentioned above, the use of the faceted design as research design helped in making the designing of the questionnaire easier. Thus, the design of the questionnaire was based on the faceted design of
the universe of content of this research. In other words, each element in each facet was represented in a question.

This research work involved the use of one identical questionnaire to all respondents. The investigation was oriented towards consumers' attitudes about commercial banking services, with particular reference to savings accounts, and consumers' saving behaviour (decisions) in Iraq. In addition, it attempted to underline the relationships between consumers' saving decisions, i.e., hold / not hold a savings account, and consumers' profile characteristics, i.e., socio-economic and demographic characteristics.

Therefore, a questionnaire was used for collecting the required primary data from respondents, in order to investigate consumers' saving behaviour (decisions) in Iraq. In other words, the questionnaire was used to gather data from all groups of respondents. Thus, in the case of investigating consumers' saving decisions, it is natural to find two groups, i.e., "banked with savings accounts" and "non-banked".

Then, respondents were asked to answer a number of (72) questions included in the identical questionnaire. Of which (65) questions were related to consumers' attitudes, motivations, psychographic characteristics. While, the remaining (7) questions were related to consumers' socio-economic, and demographic characteristics.

2. The contents of the questionnaire:

This study's questionnaire was divided into three parts, (see Appendix A), as follows:
Part one:

The first part of the questionnaire contained a number of (60) questions. These questions were designed to investigate how respondents rated the importance of different statements, that are related to savings, savings accounts, bank attributes and facilities. For this part a 5-point Likert scale was used to measure respondents responses, from "1" very important to "5" not important at all.

Part two:

The second part of the questionnaire contained a number of (5) questions, that were related to consumers' financial psychographic characteristics. Thus, respondents were asked to indicate their degree of agreement with statements designed to explore their financial psychographic characteristics. For this part, again, a 5-point Likert scale was used to measure respondents responses, from "1" strongly agree to "5" strongly disagree.

Part three:

The third part of the questionnaire contained a number of (7) questions, that related to consumers' profile characteristics (i.e., socio-economic and demographic characteristics). In this part questions were shaped into categories and the respondents were asked to tick the category they fall in. For this part, the range of questions varied from question to question, and it was between 1 and 10.

As in most survey researches undertaken in developing and less-developed countries, problems in using mail questionnaires were expected. Therefore, in order to overcome the problems and minimize sources of errors in the process and administration of the questionnaires the following procedures were followed:
1. Pre-testing the questionnaire:

The questionnaire was pre-tested, in order to minimise respondents error, with a smaller sample of respondents. This sample was drawn from the same population of this study, i.e., the population of the City of Baghdad in Iraq.

Thus, a sample of 50 respondents was selected by using a probability area sampling method. However, this method of sampling is to be discussed in detail in the forthcoming section, i.e., section 6.4.

The selected sample of 50 respondents was used for the purpose of pilot testing the questionnaire in terms of its design and contents. The difficulties the 50 respondents faced and the comments they gave, helped in improving the questionnaire and restructuring certain questions.

2. Characteristics of the questionnaire:

The questionnaire was kept as simple as possible taking into account the type of respondents likely to answer it. Thus, in Iraq, as in many Third World countries, people are not used to participating in surveys of this type. Therefore, in addition to keeping the questionnaire as simple as possible, simple instructions were included and personal assistance was provided for respondents.

3. Assurance to respondents:

Respondents were given the assurance, that any information given would be treated as confidential and analysed in aggregate. Also, respondents were asked not to give any names or addresses.
Justification for using the questionnaire with the group of "non-banked":

The present study is an investigation of consumers' saving behaviour carried out through empirically investigating consumers' attitudes towards the service of savings accounts provided by commercial banks in Iraq.

Consumers can be divided into two main groups, users and non-users of the service at present time, i.e., the moment in which the questionnaire is distributed to respondents for the purpose of primary data collection. Therefore, the decision was made to send this study's questionnaire to two groups. The first group represents holders of savings accounts with commercial banks in Iraq, i.e., "banked with savings accounts". The second group represents non-holders of savings accounts, i.e., "non-banked".

It was expected that respondents who are banked with savings accounts will find it much easier to respond intelligently to the questions asked mainly because they are actual users of the service. However, the problem was to secure similar responses from respondents who are non-banked. Achieving such an aim is not an easy job. In fact, during the process of data collection for the present research the most difficult part was collecting the data from the group of "non-banked". Thus, non-banked respondents, generally speaking, were found to be unfamiliar with the service and some of the questions they were asked. Therefore, a personal contact by the researcher with each non-banked respondent was required in order to explain to respondents the questions which they found difficult to understand. In some cases, samples of banking forms such as bank statements were shown to respondents to make it easier for them to understand.
6.4 Sampling:

Churchill (1987) defines sampling as the selection of a subset of elements from a larger group of objects. These elements (objects) are to be drawn from the sample frame as a portion of the population, in order to collect the required data.

The term "study population" or "sample frame" has been defined by Kinnear and Taylor (1987) as the aggregate of elements from which the sample is drawn. Thus, in this study there were two sample frames. The first sample frame was all the elements, who have savings accounts for the first sub-sample of "banked with savings accounts". The second sample frame was all the elements without savings accounts for the second sub-sample of "non-banked".

However, in this study the total population represented all consumers who are "banked with savings accounts" and "non-banked" within the field of study, i.e., all the population of the City of Baghdad in Iraq, consumers who are "banked with savings accounts" and "non-banked".

6.4.1 Methods of Sampling:

Clowe and Diina (1978) explain that perhaps the biggest problem in bank marketing research for both researcher and research credibility for bank management is the area of sampling. Therefore, a number of sampling methods are used in marketing research.

However, there are two main sampling methods which can be used in selecting a representative sample from a particular population, and they are as follows:

1. Random or Probability Samples:

Random or probability sampling refers to the idea of giving each element (respondent) of the population an equal chance to be
selected in the sample. In other words, each element has a known, non-zero, opportunity of being included in the sample.

There are a number of random or probability sampling methods such as: simple random sampling, cluster sampling, systematic sampling, area sampling, and stratified sampling.

2. Non-Probability Sampling:

Kinnear and Taylor (1987) define non-probability sampling as the selection of a population element to be part of the sample is based in some part on the judgment of the researcher or field interviewer. In other words, chance selection procedures are not used as it is used in probability sampling. However, there are three main methods of non-probability sampling, and these are: convenience sampling, judgement sampling, and quota sampling.

However, in this study a combination of two probability sampling methods was used in order to derive the required number of respondents from the study population, these are:

1. Area probability sampling:

Area sampling is one of the probability sampling. This method of sampling is useful, especially, when the aim is to select respondents from population living in a particular area or areas. However, in this investigation, this method of sampling was used because of two main reasons:

The first reason for using area sampling was that the research was undertaken in Iraq. In Iraq, as is the case in many developing countries, current and accurate lists of population elements are rarely available. Telephone or other directories of all those living in a city at a particular moment simply do not exist for many cities in Iraq, and when they do exist, they are obsolete when published.
While, the second reason was the desire to guarantee a personal contact with respondents for several reasons:

(1) A high expectation of delay was expected, and even loss of questionnaires, if the questionnaires were sent by mail, because of ineffective post office services in Iraq;

(2) Receiving a letter from someone you do not know is unusual and sometimes unacceptable in Iraq. In fact, approaching people at their home/work address to make personal contact with them is more acceptable and usual than to send the questionnaire by mail;

(3) To illustrate some questions, if required to respondents; and

(4) To help respondents during the process of answering the questionnaire, especially as many have rarely dealt with such an experience.

However, the extent (area) of this study was the City of Baghdad. Baghdad was chosen because: (a) it is the capital of Iraq; (b) it represents a highly competitive banking environment, where consumers have a wide range of banks, bank branches, and other financial institutions to choose from; (c) the population of the capital, as in most countries, are more likely to be users of banking services than the population of other cities and towns, especially in Iraq; and (d) given the difficulties, that are explained earlier in reaching respondents, choosing the capital was the only way to complete the job, within the limited time, costs, and efforts available.

This research study involved an investigation of consumers' attitudes towards commercial banking services in Iraq, with particular reference to savings accounts. Therefore, the
questionnaires, which were designed to collect the primary data, were distributed to two groups of respondents "banked with savings accounts" and "non-banked". The distribution of the questionnaires was carried out by the following procedures:

Firstly, the city of Baghdad was divided into (20) main districts (areas). A number was given for every district, from 1 to 20. Then, the decision was made to take from each main district a number of (40) respondents, (20) of them should be "banked with savings accounts", and the others should be (20) "non-banked".

Secondly, for the purpose of selecting the (20) "non-banked" from each district, the following procedures of area sampling were used (see figure 6.1):

A listing was made for the geographic areas within the sample location, i.e., District in this case, which was divided then into four geographic areas (north, south, east, and west).

Each geographic area contains a number of chunks, a probability sample of chunks was then selected from each geographic area (one chunk only).

Each chunk contains a number of housing units (dwellings), therefore, a listing was made for the housing units in the selected chunk. Then, a probability sample of housing units from each chunk was selected (one housing unit only).

The selected housing units were divided into smaller units called segments. Each segment contains a number of houses, then a probability sample of segments was selected (one segment only).

From each segment which contains a number of houses, a probability sample of houses was then selected (five houses from each segment).
This means a number of (20) "non-banked" respondents' houses were selected from each district. In other words, a total of 400 "non-banked" respondents' houses were selected from 20 main districts in the city of Baghdad.

But, the total sample required was 800 respondents comprising 400 "non-banked" and 400 "banked with savings accounts" and as explained above the respondents of "non-banked" were secured through adopting the above mentioned sampling procedure.

Therefore, what remains is to explain how the 400 respondents who are "banked with savings accounts" were selected and secured. Thus, in the following a description for the sampling procedures, which were used to secure the remaining 400 "banked with savings accounts" respondents.

2. Systematic probability sampling:

In this method of probability sampling a selection frame is to be defined, such as a list of savers, i.e., "banked with savings accounts" at a bank. Then, every Kth element in the frame is to be selected, after a random start somewhere within the first K elements.

However, this method of probability sampling was used in this investigation in order to select the 400 "banked with savings accounts", through adopting the following sampling procedures:

In each, of the previously mentioned selected 20 main district in the city of Baghdad, there is a branch of a commercial bank. In fact, this is the actual situation in Baghdad, where the banks policy is to open branches in main districts, and even the branches are named after the name of the districts.

Therefore, for the purpose of selecting the 20 "banked with savings accounts" from each district, access was given, by the
branches of the banks, to the records of savers, i.e., lists of savers’ names and addresses only, within each district (see figure 6.1).

City of Baghdad

was divided into:

20 Main Districts

A: Selecting 400 “non-banked”

Each district was divided into four geographic areas these are:

North South West East

From each geographic area one chunk was selected

CN CS CW CE

From each chunk one housing unit was selected

H1 H2 H3 H4

From each housing unit one segment was selected

$1 $2 $3 $4

From each segment five houses were selected

Total "non-banked" = 400

Total "banked" = 400

Overall total = 800 respondents

Figure 6.1: The sampling procedures used in this investigation.
By utilising a probability systematic sampling method a number of 20 "banked with savings accounts" from each branch, i.e., from each district, was secured. In other words, a total of 400 "banked with savings accounts" were selected from 20 bank branches located in 20 districts in the city of Baghdad. Then, each selected saver was contacted at his / her address to complete the required questionnaire.

In fact, the decision of choosing respondents who are "banked with savings accounts" and "non-banked" from the same districts was made in order to increase sample representativeness. In other words, the assumption was that, if the two typologies were selected from the same districts, the chance of the sample being more representative will increase.

As it is known, people living in the same districts are likely to share common social, economic, and demographic characteristics. In fact, this is the real situation in Baghdad, where there are some districts characterised as the districts of the rich, while, other characterised as the districts of the poor. Therefore, dividing Baghdad into 20 district was aimed to include all types of districts, i.e., in terms of upper, middle, and poor districts.

Finally, through adopting the above mentioned two methods of probability sampling, i.e., area and systematic sampling, a total number of a sample of 800 respondents was secured (see figure 6.1). In other words, a total number of 800 questionnaires were distributed to respondents. Table (6.1) shows the number of questionnaires distributed and the rate of response.
Table 6.1: Rate of Response.

<table>
<thead>
<tr>
<th>Description</th>
<th>&quot;banked with savings accounts&quot;</th>
<th>&quot;non-banked&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of questionnaires distributed.</td>
<td>400</td>
<td>400</td>
</tr>
<tr>
<td>Number of questionnaires returned.</td>
<td>321</td>
<td>379</td>
</tr>
<tr>
<td>(80%)</td>
<td></td>
<td>(95%)</td>
</tr>
<tr>
<td>Usable questionnaires (duly completed).</td>
<td>265</td>
<td>356</td>
</tr>
<tr>
<td>Non-usable questionnaires (not duly completed)</td>
<td>56</td>
<td>23</td>
</tr>
</tbody>
</table>

Table 6.1 shows a high percentage of response rate for both groups. This was due to personal communications with respondents, and the high level of co-operation offered by them.

According to Churchill (1987) probability samples are distinguished by the fact that each population element has a known, non-zero chance of being included in the sample. With non-probability samples, on the other hand, there is no way of ensuring that the sample is representative of the population.

Based on that, the first decision was made to use probability samples in this investigation. While, the second decision was made to select the most suitable methods among the alternative methods of probability sampling in this investigation. These two decisions guided the research sampling method and helped in establishing a combined method of area and systematic probability sampling which was used in this investigation, as explained earlier in this chapter.
However, the method of sampling used in the present investigation are subject to the following limitations: (a) as is known, probability sampling methods are more difficult to use than non-probability sampling methods; (b) Combining two methods of probability sampling, i.e., area and systematic, was a complicated, time consuming and costly task to achieve the required sample size. By reviewing and testing the alternatives during the pilot study it was concluded that the selected methods were the most suitable to serve the purpose of selecting a representative sample drawn from the population in Iraq for the reasons mentioned earlier in this chapter.

6.4.2 The Size of the Sample:

As showed in table 6.1, a sample of (800) respondents was used for the purpose of collecting the primary data required from respondents. In deciding the size of the sample, two important points can be mentioned.

Firstly, Peterson (1982) referred to some rules of thumb when determining the size of the sample, like a minimum sample of (400) when estimating a single population parameter in order to get research findings, which are generally reliable. According to him, larger samples than (400) typically are not justified considering the incremental costs involved. Also, he mentioned a second rule of thumb, which is that there should be a minimum of four study participants (respondents) per questionnaire item, which generally results in reliable results from a decision-making prospective.

For instance, in this study the questionnaire contained (72) items (variables) (see Appendix A). Therefore, the minimum sample size of this study should be not less than \( N = 288 \), thus:
While, a total sample of 800 respondents was used in this investigation of which, 400 "banked with savings accounts" and 400 "non-banked".

In addition to this, Kinnear and Taylor (1987) explain that the choice of a sample size depends on factors such as: statistical precision requirements, study objectives, time available, cost, and data analysis plan.

However, in this study two additional factors affected the decision of choosing a sample size. Firstly, the study population was all the residents of a big city (about four million people). Secondly, there were no accurate data, statistics, or directories about the residents, especially for the sub-population of "non-banked".

In fact, the decision to choose a sample size of (800) respondents [400 "banked with savings accounts" and 400 "non-banked"] was made for the following reasons: (a) increasing the chance of sample representativeness of the population to gain more reliable results; (b) allowing for the rate of non-responses and not duly completed questionnaires which might occur; and (c) as mentioned earlier this study was about two big sub-populations "banked with savings accounts" and "non-banked" drawn from one main population (residents of the City of Baghdad).

6.5 Summary:

This chapter was devoted to explain the types of data, methods of data collection and the sampling procedures, which were employed in this investigation.
Data measurements consist of four types of measurement: Nominal, Ordinal, Interval, and Ratio. Each type of these measurements required special treatment in terms of converting them into numerical symbols, in order to facilitate using them in data collection and data analysis.

A questionnaire was designed to collect the required primary data from respondents. The questionnaire design of this study was based on the research faceted design.

The questionnaire contained (72) items (questions), that are related to the aspects of consumers' saving behaviour, attitudes towards some bank attributes, and consumers' socio-economic and demographic characteristics.

A total of (800) questionnaires were distributed to respondents. A combination of probability systematic and area sampling was used in order to select the sample of respondents.

The response rate was very encouraging, thus, the response rate was (80%) in the case of respondents who are "banked with savings accounts", while, it was (95%) in the case of "non-banked".
CHAPTER SEVEN

METHODS OF DATA ANALYSIS

7.1 INTRODUCTION.
7.2 FACTOR ANALYSIS.
7.3 TWO-GROUP DISCRIMINANT ANALYSIS.
7.4 MULTIPLE CLASSIFICATION ANALYSIS.
7.5 THE KOLMOGOROV-SMIRNOV GOODNESS-OF-FIT TEST.
7.6 THE F-TEST.
7.7 THE T-TEST.
7.8 SUMMARY.
7.1 Introduction:

This chapter presents the statistical methodology of analysis which was used in this study to analyse the research primary data. The subject of selecting the most appropriate methods of data analysis is a complicated one and depends on many considerations such as:

1. The number of variables to be analysed at a time. Thus, (a) if the number of variables to be analysed at a time is one, then, the appropriate methods are the univariate methods of data analysis; (b) if the number of variables to be analysed at a time is two, then, the appropriate methods are the bivariate methods of data analysis; and (c) if the number of variables to be analysed at a time is three or more, then, the multivariate methods of analysis are the appropriate.

2. The level of measurement of data. Thus, each type of data can be analysed by using the appropriate method of data analysis. In other words, qualitative (non-metric) data, i.e., nominal and ordinal, and quantitative (metric) data, i.e., interval and ratio, each of them can be analysed by using a set of statistical methods of data analysis.

3. The interrelationship between variables, i.e., interdependence versus dependence variables. Thus, if the data is a multivariate in type, i.e., more than two variables, then, the interrelationship among all variables taken together is the prime consideration in selecting the appropriate method of data analysis. For example, in the case of one or more variables are dependent on a number of independent variables the dependence multivariate methods are the appropriate. While, in the case of no variable or variables
are predicted by others the interdependence multivariate methods of analysis are the appropriate.

Figure 7.1: Methods of data analysis.
Sources: Sheth (1971), Meidan (1975, B), and Kinear and Taylor (1987).

Figure 7.1 explains the alternative major methods of data analysis which can be used for the purpose of data Analysis in marketing research.

The selection of the methods of data analysis used in this study was based on the assumptions mentioned above and explained in figure 7.1. Thus, because the data of this investigation is
multivariate, qualitative (non-metric) of ordinal and nominal type and the variables are of dependence and interdependence nature only the multivariate methods are appropriate for the purpose of data analysis. Therefore, three major statistical multivariate methods were used for the purpose of data analysis in this investigation, these are: Factor Analysis, Discriminant Analysis and Multiple Classification Analysis. In addition, a number of statistical tests was used to test the relevant research hypotheses.

Each method of data analysis is discussed below through the following formula: (a) What is the method? (b) What are the reasons or purposes for selecting the statistical method? and (c) What are the alternative statistical methods to each method used?

7.2 Factor Analysis:

Massy (1971) defined Factor Analysis (FA) as basically a method for reducing a set of data into a more compact form. The user of FA focuses on the set of variables for which information has been collected and poses the question: Can the information be summarised in a smaller number of factors?

The answer to this question was provided by practical applications of FA in marketing research which proved that FA can be used to accomplish the aim of reducing data with a minimal loss of information.

Morrison (1976) suggested that technically Factor Analysis is a set of methods in which the observable or manifest responses of individuals on a set of variables are represented as functions of a small number of latent variables called "factors".

Green and Tull (1978) mentioned that rather than trusting strictly to intuition, Factor Analysis systematically explores which
variables exhibit high intraset correlations and low interset correlations, how many such sets there are (each set defining a dimension), and whether the dimensions can be considered as uncorrelated themselves.

Thus, the purpose of FA is to define "factors" or "dimensions" which can describe the data. For example, one of the objective of this study is defining a number of factors or dimensions which can describe the most important variables related to savers, i.e., banked with savings accounts, attitudes towards savings and having savings accounts at commercial banks. In other words, FA can help in this study by reducing the data from a number of 60 variables into a more compact form and provide better identification in terms of dimensions or factors with a minimal loss of information.

Figure 7.1 shows that Factor Analysis is one of the multivariate methods of data analysis which can be used when the variables are interdependent in nature. Therefore, in this study Factor Analysis was used in order to analyse the attitudinal data related to savers, i.e., banked with savings accounts, attitudes towards savings in general and having savings accounts at commercial banks in particular.

The main purpose for using Factor Analysis in this investigation is related to achieving the research objective of determining a minimal number of saving behaviour factors to replace the large number of independent variables (60 variables) with a minimal loss of information. In other words, FA was used to achieve the objective of determining those attitudinal FACTORS which are perceived by SAVERS, i.e., BANKED WITH SAVINGS ACCOUNTS, as of significant importance in influencing their decisions to open
savings accounts at commercial banks in Iraq. Table 7.1 provides further justifications for using FA in this investigation.

Table 7.1 Justifications for using Factor Analysis.

<table>
<thead>
<tr>
<th>Research Objective</th>
<th>Justifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>To determine those universal attitudinal factors which are perceived by the Iraqi savers, as important in influencing their decisions to open savings accounts at the commercial banks.</td>
<td>Factor Analysis is a multivariate technique can be used in order to reduce the data into a more compact form and provide better identification for consumer saving behaviour variables. Also, Factor analysis allows to examine the strength of the overall association among variables in terms of a smaller set of linear composites of the original variables. Therefore, FA was used in this investigation.</td>
</tr>
</tbody>
</table>

However, as it has been explained in figure 7.1, there are other alternative multivariate methods of data analysis which can be used instead of Factor Analysis in marketing research, such as: Cluster Analysis, Multidimensional Scaling Analysis; and Latent Structure Analysis.

In fact, the selection of FA to be used in this investigation among other alternatives was due to the reasons mentioned in table 7.1. In other words, the stated objective for using FA in this study was to determine attitudinal factors, i.e., the search for common
factors to replace the attitudinal variables. Therefore, FA was found to be the most appropriate statistical technique which will do just that, i.e., replace the large number of variables into a minimal number of common factors with a minimal lose of information.

Also, Factor Analysis was chosen among other alternative techniques because as it has been described by Sheth (1971) as a data-reduction method which summarises the commonality of all the manifest variables into a few factors.

However, the decision of a particular statistical method of analysis among other alternative methods depends entirely on a number of criteria, such as:

1. The research objective, in other words, the purpose for using the statistical method of data analysis.
2. The advantages and disadvantages of each statistical method of data analysis and how it may affect the research findings.
3. The type of data which is to be analysed by using a particular statistical method of data analysis.
4. The availability of computer programmes to carry-on the analysis with a particular method of analysis.
5. If all the above criteria are considered and the market researcher concluded that more than one method can be used, then he / she have to make his / her decision and select the most appropriate statistical method of analysis to his / her research.

Therefore, the decision to select FA in this investigation among other previously mentioned alternatives was based on the criteria and assumptions mentioned above.
Finally, the statistical results of this investigation's FA are presented in chapter eight of this investigation.

7.3 Two-Group Discriminant Analysis (TGDA):

Discriminant Analysis (DA) has been defined by Klecka (1980) as a statistical technique which allows the researcher to study the differences between two or more groups of objects with respect to several variables simultaneously.

Sheth (1970) mentioned that DA is useful in a situation where a total sample is divided into known groups based on some classificatory variable, and the researcher is interested in understanding group differences or in predicting correct belonging to a group of a new sample based on the information on a set of predictor variables.

However, as shown in figure 7.1, DA is one of the multivariate methods of data analysis which can be used when the classificatory variable is dependent in nature, and the predictor independent variables are qualitative (non-metric).

DA is divided into two types: Multiple Discriminant Analysis (MDA) which can be used when the study has a single dependent variable of three or more categories; and Two-Group Discriminant Analysis (TGDA) which can be used when the study has a single dependent variable of two categories, i.e., dichotomous. Therefore, the interest in this investigation was in Two-Group Discriminant Analysis because the dependent variable for the DA carried out in this investigation was dichotomous, i.e., two groups only: consumers who are "banked with savings accounts" and those "non-banked".

The selection of DA among other multivariate dependent methods, as shown in figure 7.1, to be used in this investigation
was based on the previously mentioned criteria. In addition, Frank and Massy (1963) mentioned that Regression Analysis takes a continuous dependent variable, such as durable good expenditures, and estimates the degree to which each of a set of independent variables like income and age are related to it. In contrast, Two-Way Discriminant Analysis is a tool for estimating the relationship between a set of independent variables and a dichotomous attribute such as whether families are Folger's (Coffee) loyal or non-Folger's customers.

In other words, Two-Group Discriminant Analysis classifies respondents into two exclusive groups and Multiple Discriminant Analysis classifies respondents into three or more exclusive groups and that depends on the number of categories in the dependent variable used in the analysis. While, Regression Analysis, for example, relates a continuous dependent variable to a set of independent variables.

Grimm (1974) mentioned that DA classifies individuals or objects into one of two or more exclusive groups, in contrast to Regression Analysis and Multiple Classification Analysis (MCA) that position individuals or objects on a continuum. The dependent variable is categorical in DA. While, it is continuous for Regression Analysis and MCA.

Therefore, TGDA was used in the present investigation to analyse the relationship between the 65 independent attitudinal variables and a dichotomous dependent variable (attribute). Also, it was used in order to classify respondents into two mutually exclusive and exhaustive groups of respondents. Thus, TGDA was used in the present investigation in order to determine the relationship between the 65 independent attitudinal variables and the dependent
dichotomous variable consumers' saving decisions, i.e., consumers who are banked with savings accounts vs. non-banked. Table 7.2 provides the justifications for using TGDA in the present investigation.

Table 7.2 Justifications for using TGDA.

<table>
<thead>
<tr>
<th>Research Objective</th>
<th>Justifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>To establish the extent to which differences exist between banked and non-banked consumers in terms of their attitudes towards the service of savings accounts provided by commercial banks in Iraq.</td>
<td>Two-Group Discriminant Analysis is one of the dependent methods of multivariate analysis, which can be used when the study has one single dependent variable which is dichotomous. The primary objective of DA is to correctly classify entities into mutually exclusive and exhaustive classes or groups. Therefore, DA was used in this investigation.</td>
</tr>
</tbody>
</table>

Finally, the statistical results of this investigation's TGDA are presented in chapter nine of this study.

7.4 Multiple Classification Analysis (MCA):

The Multiple Classification Analysis (MCA) is a multivariate method of data analysis, which can be used when the study has a single dependent variable. The MCA is a suitable statistical method to examine the relationship between a dependent variable and a set of independent predictors (variables). For example, the MCA can be used to examine the relationship between consumers' saving decisions (hold / not hold a savings account) and a number of predictors such
as: sex, marital status, age, family size, income, qualification and occupation.

Anderson and Nevin (1975) indicated that the MCA program is a convenient variant of dummy variable regression analysis, which, like all dummy variable programs, does not require interval scaled independent variables.

Andrews, Morgan and Sonquist (1973) mentioned that the major statistics which can be provided by MCA program are the following: (a) the Eta statistic; (b) the Beta statistic; (c) the multiple coefficient of determination ($R^2$); and (d) the F-ratio. However, each of these statistics and its advantages are described in more detail in chapter ten of this investigation together with the statistical results of MCA.

However, the MCA was selected to be used in the present investigation among other alternative techniques shown in figure 7.1 because it was found to be the most appropriate technique for the purpose of analysing the categorical data of this research.

Thus, the main objective for using the MCA in the present investigation was to examine the relationship between the dependent variable (consumers' saving decisions to hold / not hold a savings account at commercial banks) and seven independent variables (predictors) taken together or separately. In other words, the main objective was to examine the relationship between consumers' saving decisions and seven of their socio-economic and demographic characteristics, such as: sex, marital status, age, family size, income, educational level and occupation. Table 7.3 explains the justifications for using MCA in the present investigation.
Table 7.3: Justifications for using MCA.

<table>
<thead>
<tr>
<th>Research Objective</th>
<th>Justifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>To examine the relationship between consumers' saving decisions (hold / not hold savings accounts) and seven of their socio-economic and demographic characteristics: 1. Sex; 2. Marital status; 3. Age; 4. Family size; 5. Income; 6. Qualification; and 7. Occupation.</td>
<td>The MCA is a multivariate method of data analysis which can be used when the purpose of the study is to examine the relationship between several predictors (taken together and separately) and a single dependent variable. Therefore, the MCA was used in the present study.</td>
</tr>
</tbody>
</table>

The statistical results of this investigation's MCA are presented in chapter ten of this investigation.

7.5: The Kolmogorov-Smirnov Goodness-of-Fit Test:

Siegel (1956) mentioned that the Kolmogorov-Smirnov one-sample test is a test of goodness of fit. That is, it is concerned with the degree of agreement between the distribution of a set of sample values (observed scores) and some specified theoretical distribution. It determines whether the scores in the sample can be reasonably be thought to have come from a population having the theoretical distribution. Also, the same author said that the Kolmogorov-Smirnov is the strongest statistical test among all the one sample non-parametric tests.

However, in the present study the Kolmogorov-Smirnov test was selected among other alternative non-parametric test because it is the most appropriate statistical test to test a research hypothesis.
when the study has one sample and the level of measurement of data (variables) is in an ordinal scale. In other words, the Kolmogorov-Smirnov test was used in this study to test the research hypothesis of chapter eight of this investigation where one sample (a sample of 265 "banked with savings accounts") only used and the data (variables) was of an ordinal scale. The statistical results of this investigation's Kolmogorov-Smirnov test are presented in table 8.14 of chapter eight.

7.6 The F-Test:

The F-test is a parametric statistical test. This test was used in the present investigation to test the research hypotheses which are related to the use of Multiple Classification Analysis (MCA) of this investigation. In other words, the basic statistics for calculating the F-test are provided by the MCA programme which are used as input for the purpose of testing the related research hypotheses as shown in chapter ten.

In fact, the intentions from using the F-test were to determine: (a) whether all the independent variables taken together explain the variation in the dependent variable; and (b) whether each independent variable taken separately explains the variation in the dependent variable.

Therefore, two types of F-tests were carried out in this investigation. The first test, i.e., whether all predictors taken together explain the variation in the dependent variable, was carried out by applying the following equation:

\[ F = \frac{E}{(C - P)} \]

\[ F = \frac{E}{Z} \frac{(N - C + P - 1)}{Z} \]
Where:

\( E \) = Explained sum of squares.
\( C \) = Total number of categories in all variables.
\( P \) = Number of predictors (variables).
\( Z \) = Residual sum of squares.
\( N \) = Number of cases (respondents).

The second test, i.e., whether each predictor taken separately explains the variation in the dependent variable, was carried out by using the following equation:

\[
F = \frac{U_i / (C - 1)}{\frac{(T - U_i) / (N - C)}{i}}
\]

Where:

\( i \) = The predictor (variable).
\( U_i \) = Sum of squares based on unadjusted deviation from the \( i \) grand mean of the MCA output for the predictor.
\( C \) = Total number of categories in the predictor.
\( T \) = Total sum of squares.
\( N \) = Number of cases (respondents).

However, the statistical results of using the F-test for the purpose of testing the relevant hypotheses to the MCA programme are presented in chapter ten of this investigation.

7.7 The T-Test:

The t-test is one of the parametric tests. It is useful to examine (test) the differences between two groups. It is known that the parametric tests, such as the t-test, are more powerful than the non-parametric tests.
In the present investigation the t-test was used to examine the differences between Iraqi consumers of banking services if divided according to their saving habits, age, income, education, and family size. The SPSS-X computer programme provides the results of t-tests, which are discussed in section 9.2.2 of chapter nine of this study.

7.8 Summary:

This chapter was devoted to providing insights into the statistical methods of data analysis which were used in this investigation.

The discussion for each method of analysis was based on its definition, use, alternatives, applications and the reasons for selecting it to be used in the present investigation among other alternative methods of data analysis.

Therefore, the relevant theoretical aspects about Factor Analysis (FA), Two-Group Discriminant Analysis (TGDA) and Multiple Classification Analysis (MCA) were presented in this chapter. In addition to that, the three statistical tests which were used for the purpose of testing this investigation's hypotheses are also discussed in the same manner.
CHAPTER EIGHT

FACTOR ANALYSIS FINDINGS

8.1 INTRODUCTION.

8.2 INTERPRETATION OF FACTOR ANALYSIS FINDINGS.

8.3 TESTING RESEARCH HYPOTHESIS.

8.4 CONCLUSIONS.
8.1 Introduction:

Factor analysis was used in this study to determine a number of saving behaviour factors, to replace the larger number of independent variables.

Frank and Green (1967) suggested that factor analysis can be used as a technique to analyse the inter-correlations within a set of variables. Its primary purpose is to find a way of summarising the information contained in a number of original variables with a minimum loss of information.

However, factor analysis was used in this investigation to summarise the attitudinal data gathered from "respondents who are banked with savings accounts" only. The reason for doing this was based on achieving the first objective of this investigation. That is, determining those attitudinal factors which are perceived by "respondents who are banked with savings accounts", as of significant importance in influencing their decision to open a savings account at a commercial bank in Iraq. In other words, the first stage of this study's plan, as shown in figure 1.1 of chapter one, is to determine actual savers attitudes towards the service of savings accounts provided by commercial banks in Iraq. The responses of 265 out of a sample of 400 "banked with savings accounts" are to be analysed in this chapter. This analysis was considered as a first step. It was assumed that knowing the attitudes of actual savers who are "banked with savings accounts" is very important as an advance step, before going into analysing the differences between consumers attitudes according to their saving decisions, saving habits, and socio-economic and demographic characteristics. This will be explained in chapters nine and ten of this investigation.
Respondents who are "banked with savings accounts", were asked to answer 60 different attitudinal questions, which were related to their decision to save by opening a savings account at a commercial bank in Iraq. Their responses were analysed by using FA.

8.2 Interpretation of Factor Analysis Findings:

A Factor Analysis using Principle Components Analysis (PCA) computer programme, with Varimax Rotation, was used to analyse the attitudinal data gathered from the sample of "banked with savings accounts" (265 respondents). The analysis was based, first of all, on the following assumptions:

1. The correlation matrix between the attitudinal variables was used as input for the analysis. Norusis (1985) indicated that "since one of the goals of Factor Analysis is to obtain "factors" that help to explain these correlations, the variables must be related to each other for the factor model to be appropriate". The higher the correlation between variables, the more likely they share common factors. Therefore, two indicators are adopted in this investigation to make sure that the correlation matrix can be used in the factor model of this study.

The first indicator, as had been described by Norusis (1985), is called Bartlett's Test of Sphericity (based on a chi-square transformation of the determinant of the correlation matrix). That is, if the value of the test statistics for sphericity is large and the associated significant level is small, it is unlikely that the population correlation matrix can not be used in factor model.

The result of the Bartlett's Test of Sphericity for this study indicated that the value of the test statistics for sphericity was large 8663.17, and the associated significant level was very
small .000. So, the correlation matrix between the variables can be used in the factor model of this investigation.

The second indicator is called Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy. This measure is used as an index for comparing the magnitudes of the observed correlation coefficients to the magnitudes of the partial coefficients. High values for the KMO measure indicate that a Factor Analysis of the variables may be a good idea. Kaiser (1974) characterizes measures in the .90's as marvellous, in the .80's as meritorious, in the .70's as middling, in the .60's as mediocre, in the .50's as miserable, and below .50 as unacceptable. The value of the overall KMO statistic for this investigation was calculated to be equal to .85. This means, that it was comfortable to carry-on with Factor Analysis in this investigation, because the value of the KMO measure was very high, i.e., can be classified as meritorious.

2. Regarding determining the number of factors to be extracted by factor analysis, Tull and Hawkins (1990) suggested that un-aided judgement sometimes is used. This generally involves the researcher stopping at the first factor that is difficult to interpret. The most common approach is to use a rule of thumb referred to as the eigenvalue - greater - than - one rule. Therefore, for the purpose of determining the number of factors to be extracted by Factor Analysis, only factors that accounted for variance greater than 1.0, i.e., the eigenvalue is greater than 1.0, was included in the final statistics of the factor analysis of this study.

3. In respect to the concept of factor loading, different scholars referred to different opinions in defining the significant level of factor loading to be adopted by analysts. Fitts (1975) mentioned that factors are interpreted in terms of the variables which load
significantly on that factors. Wells and Sheth (1971) ignored the issue of whether a factor loading is significant and referred to the concept of "high" and "low" loading only. While Mukherjee (1965) referred to the concept of choosing an arbitrary cut-off point such as .50. Harman (1967) presented a table of standard errors of factor coefficients which can be used to determine whether a factor loading is statistically significant at any predetermined level of significance.

Based on the above, factor loading of .45 was used as cut-off value for factor loading in this investigation. In other words, only variables with factor loading of .45 and over with at least one of the factors extracted by Factor Analysis were accepted, and all loading below .45 were eliminated. However, it should be explained that the decision of choosing .45 as cut-off value for factor loading, was made in order to minimise the loss of information. Thus, if a higher cut-off value than .45 was selected, it is possible that some important information would have been lost.

4. Tull and Hawkins (1990) indicated that in factor analysis another rule of thumb requires that enough factors be retained to explain a "satisfactory" percentage of the total variance. Unfortunately, "satisfactory" is difficult to specify. Therefore, in this investigation and in order to reach a satisfactory percentage of the total variance, thirteen factors were retained. They were also retained because their eigenvalues were greater than 1.0 (see item 2 above).

Based on the above assumptions, and in order to provide a multivariate perspective on the 60 variables related to respondents who are "banked with savings accounts" attitudes toward commercial banking services, with special reference to savings accounts, and
other bank attributes, a Principle Components Factor Analysis with Varimax Rotation was carried out. A thirteen factor solution was obtained, which accounted for 64.5 per cent of the explained variance, and included 57 attitudinal variables, i.e., with a minimum loss of information (57 out of 60 variables were retained). In other words, a number of thirteen factors together explained 64.5 per cent of the variance in the original consumers rating of the importance of some of 60 attitudinal variables.

The decision to include a variable in a factor was based on factor loading greater than or equal to .45. Therefore, a number of three variables were excluded from the rotated factor matrix, because their factor loading with any of the 13 factors extracted were less than .45 (see Appendix C).

The results of Factor Analysis represented in the thirteen factors extracted, with the variables and their factor loading, and the variance explained by each factor, are shown in Tables 8.1 to 8.13 below:

**Factor One: Customers' satisfaction:**

As shown in table 8.1, this factor accounts for 20.2 per cent of the explained variance. It includes twelve variables, that are closely tied to customers' satisfaction in their relationship with the bank in terms of certain personal aspects, other facilities provided by the bank staff to customers and how respondents who are "banked with savings accounts" evaluate their importance in influencing their decision to open savings accounts at a particular bank. This factor indicates that aspects of customers' satisfaction are very important in influencing consumers saving decisions. Therefore, banks should attempt to improve the channels of bank-
customer relationship in order to keep existing customers and gain more customers. This factor indicates that Iraqi customers are very concerned about their relationship with the bank, in particular how bank management and personnel treat them. In their study Arora, Cavusgil and Nevin (1985) concluded a similar factor and they described it as "representing the dependability of the institution". Thus, customers feeling secure and satisfied when they deal with a bank, reflects a positive and reliable bank-customer relationship. Also, Yavas (1988) suggested that bank's standard of customer care is the prime consideration for the Saudi bank customers when they choose a bank.

Table 8.1: Factor One: Customers' Satisfaction.

<table>
<thead>
<tr>
<th>Loading</th>
<th>Variable Code</th>
<th>Variable Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>.68</td>
<td>v20</td>
<td>Bank personnel are concerned about customers.</td>
</tr>
<tr>
<td>.71</td>
<td>v21</td>
<td>Bank personnel are knowledgeable.</td>
</tr>
<tr>
<td>.73</td>
<td>v22</td>
<td>Bank personnel listen to customers.</td>
</tr>
<tr>
<td>.74</td>
<td>v23</td>
<td>Good interaction between staff and customers.</td>
</tr>
<tr>
<td>.74</td>
<td>v24</td>
<td>Bank personnel are friendly.</td>
</tr>
<tr>
<td>.77</td>
<td>v25</td>
<td>Bank personnel give advice to customers.</td>
</tr>
<tr>
<td>.84</td>
<td>v26</td>
<td>Bank personnel explain services to customers.</td>
</tr>
<tr>
<td>.81</td>
<td>v27</td>
<td>Bank management provides consultation to customers.</td>
</tr>
<tr>
<td>.77</td>
<td>v28</td>
<td>Friendliness of tellers.</td>
</tr>
<tr>
<td>.76</td>
<td>v29</td>
<td>Customers complaints are dealt with.</td>
</tr>
<tr>
<td>.69</td>
<td>v30</td>
<td>I feel important as customer.</td>
</tr>
<tr>
<td>.50</td>
<td>v34</td>
<td>Special lines for savers.</td>
</tr>
</tbody>
</table>

Eigenvalue = 12.11  
Per cent of variance = 20.2  
Cumulative variance explained = 20.2

Factor Two: Advertising:

This factor accounts for 9.4 per cent of the explained variance. It includes five variables, that are related to bank
advertising methods and how respondents who are "banked with savings accounts" evaluate their importance in influencing their decision to open savings accounts. The five variables loaded with this factor are described in table 8.2. Advertising is one of the methods of informing consumers of banking services offered by the bank. Also, it is an important method of influencing consumers and competing in the market. This factor indicates that advertising is the second most important factor which has an influence on consumers of banking services in Iraq. In their studies Erol and El-Bdour (1989) and Yavas (1988) concluded that advertising was a factor in bank marketing and was perceived by consumers of banking services as of significant importance in influencing consumers banking decisions to select a bank and a service.

Table 8.2: Factor Two: Advertising.

<table>
<thead>
<tr>
<th>Loading</th>
<th>Variable Code</th>
<th>Variable Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>.88</td>
<td>v52</td>
<td>Bank advertises on T.V.</td>
</tr>
<tr>
<td>.91</td>
<td>v53</td>
<td>Bank advertises on Radio</td>
</tr>
<tr>
<td>.92</td>
<td>v54</td>
<td>Bank advertises in Newspapers</td>
</tr>
<tr>
<td>.88</td>
<td>v55</td>
<td>Bank advertises in Magazines</td>
</tr>
<tr>
<td>.49</td>
<td>v56</td>
<td>Personal contact by bank.</td>
</tr>
</tbody>
</table>

Eigenvalue = 5.64  
Per cent of variance = 9.4  
Cumulative variance explained = 29.6

Factor Three: Benefits of Savings:

This factor accounts for 6.8 per cent of the explained variance, as shown in table 8.3. It includes seven variables, that are closely tied to the importance attached by respondents who are "banked with savings accounts" to the benefits, they seek from having savings accounts at commercial banks. In this factor Iraqi savers indicated the most important benefits they want to achieve
from having a savings accounts at a commercial bank. The range of benefits sought by one customer to another is vary. However, this factor indicates that seven personal benefits from holding a bank savings account were given a priority by Iraqi bank customers, as shown in table 8.3. The findings of, for example, Yavas (1988) and Erol and El-Bdour (1989) suggested that some general benefits were sought by bank customers when they deal with a bank. However, their studies were not specifically carried out to investigate benefits of savings, but it mentioned some general benefits of using banking services. Therefore, it can be mentioned here that the attempt to explore these seven common benefits of savings, which are suggested in this study, is a more specific attempt to identify savers' motivations to hold a bank savings account.

Table 8.3: Factor Three: Benefits of Savings.

<table>
<thead>
<tr>
<th>Loading</th>
<th>Variable Code</th>
<th>Variable Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>.75</td>
<td>v1</td>
<td>Meeting increasing living expenses.</td>
</tr>
<tr>
<td>.65</td>
<td>v2</td>
<td>Beating inflation.</td>
</tr>
<tr>
<td>.48</td>
<td>v3</td>
<td>Family is protected.</td>
</tr>
<tr>
<td>.60</td>
<td>v4</td>
<td>Building up a retirement fund.</td>
</tr>
<tr>
<td>.73</td>
<td>v5</td>
<td>Increasing standard of living.</td>
</tr>
<tr>
<td>.57</td>
<td>v6</td>
<td>Buying property.</td>
</tr>
<tr>
<td>.45</td>
<td>v13</td>
<td>Covering marriage expenses.</td>
</tr>
</tbody>
</table>

Eigenvalue = 4.08
Per cent of variance = 6.8
Cumulative variance explained = 36.4

Factor Four: Bank's Image:

As shown in table 8.4, this factor accounts for 4.5 per cent of the explained variance. It includes five variables, that are closely tied to the aspects of bank reputation and customer's confidence in bank. Also, the five variables loaded in this factor represent the most important confidence variables which may
influence consumers' decision to open savings accounts at commercial banks. A bank's image in the market has a significant influence on consumers. Banks anywhere attempt to reflect the best image they can in the market, especially in countries where the competition between banks is very high. In this factor, Iraqi consumers of banking services indicated the most important aspects of bank image which they consider as important in influencing their perception of the bank. Previous studies of bank marketing extracted a similar factor, see for example Robertson and Bellenger (1977) and Erol and El-Bdour (1989).

Table 8.4: Factor Four: Bank's Image.

<table>
<thead>
<tr>
<th>Loading</th>
<th>Variable Code</th>
<th>Variable Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>.58</td>
<td>v47</td>
<td>Bank has large building.</td>
</tr>
<tr>
<td>.76</td>
<td>v48</td>
<td>Bank is well-known.</td>
</tr>
<tr>
<td>.78</td>
<td>v49</td>
<td>Bank is well-established.</td>
</tr>
<tr>
<td>.68</td>
<td>v50</td>
<td>Bank has a good reputation.</td>
</tr>
<tr>
<td>.58</td>
<td>v51</td>
<td>Bank has many branches.</td>
</tr>
</tbody>
</table>

Eigenvalue = 2.73  
Per cent of variance = 4.5  
Cumulative variance explained = 40.9

Factor Five: Location Convenience:

This factor accounts for 3.6 per cent of the explained variance and includes three variables, as described in table 8.5, relative to the aspects of bank location and its convenience. Thus, this factor consists of the most important location variables, that are perceived by respondents who are "banked with savings accounts" as of significant importance in influencing their decision to open savings accounts at commercial banks. Bank customers in Iraq indicated that convenience of bank location near shopping centres, home, place of employment and overall good location of bank branches
are considered as important issues which have an influence on their decisions. All the same, convenience of bank location was suggested by previous comparative studies of bank marketing in other countries as of significant importance in influencing consumers selection of a bank. In their studies LeBlanc and Nguyen (1988), Yavas (1988), Robertson and Bellenger (1977) and Erol And El-Bdour (1989) concluded that convenience of bank location near home, work and shopping centre is one of the factors which has an influence on consumers banking decisions.

Table 8.5: Factor Five: Location Convenience.

<table>
<thead>
<tr>
<th>Loading</th>
<th>Variable Code</th>
<th>Variable Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>.64</td>
<td>v38</td>
<td>Bank is located near shopping centre.</td>
</tr>
<tr>
<td>.86</td>
<td>v39</td>
<td>Bank is located near home.</td>
</tr>
<tr>
<td>.82</td>
<td>v40</td>
<td>Bank is located near place of employment.</td>
</tr>
<tr>
<td>.49</td>
<td>v41</td>
<td>Location of branches.</td>
</tr>
</tbody>
</table>

Eigenvalue = 2.14
Per cent of variance = 3.6
Cumulative variance explained = 44.5

Factor Six: Quality of Transactions:

This factor accounts for 3.4 per cent of the explained variance. Also, it consists of three variables related to the concept of the quality of savings accounts transactions. The three variables included in this factor reflect the role of some qualitative attributes of quality of savings accounts transactions in influencing respondents who are "banked with savings accounts" and their decision to open savings accounts at commercial banks. Table 8.6 provides a description for this factor, and the variables it includes. This factor indicates that consumers of banking services pay attention to the aspects of quality of bank transaction
in terms of its accuracy and confidentiality. It is obvious that accuracy of bank transaction is important for a bank customer because he/she feels that a mistake made by the bank may result in a financial loss to him/her. In addition, it may destroy a customer's confidence in the bank and the quality of its services. Bank transactions are treated with a high level of confidentiality and that fact has pleased users of banking services throughout the history of banking. Therefore, the findings of the present study together with the findings of previous studies, such as Erol and El-Bdour (1989) and Arora, Cavusgil and Nevin (1985) confirmed the importance of the quality of banking services in terms of accuracy, confidentiality and ease of processing transactions to bank customers.

Table 8.6: Factor Six: Quality of Transactions.

<table>
<thead>
<tr>
<th>Loading</th>
<th>Variable Code</th>
<th>Variable Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>.73</td>
<td>v35</td>
<td>Accuracy of bank transaction.</td>
</tr>
<tr>
<td>.79</td>
<td>v36</td>
<td>Confidentiality of bank transaction.</td>
</tr>
<tr>
<td>.74</td>
<td>v37</td>
<td>Easily of processing bank transaction.</td>
</tr>
</tbody>
</table>

Eigenvalue = 2.02
Per cent of variance = 3.4
Cumulative variance explained = 47.9

Factor Seven: Building Design:

This factor accounts for 2.9 per cent of the explained variance. It includes five variables, as shown in table 8.7, that are related to how respondents who are "banked with savings accounts" rate the importance of some bank building design attributes in influencing their decision to open savings account at a particular commercial bank. The findings of the present
investigation with regard to the importance of this factor "bank's building design" confirmed the findings of the study carried out by Arora, Cavusgil and Nevin (1985). In their study they suggested that there are some similar aspects (variables) that are related to the design of the bank building and its convenience of significant importance in influencing consumers' perception of a bank.

Table 8.7: Factor Seven: Building Design.

<table>
<thead>
<tr>
<th>Loading</th>
<th>Variable Code</th>
<th>Variable Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>.45</td>
<td>v42</td>
<td>Availability of parking facilities.</td>
</tr>
<tr>
<td>.53</td>
<td>v43</td>
<td>Building close to public transportation.</td>
</tr>
<tr>
<td>.65</td>
<td>v44</td>
<td>Easy entrance to and exist from bank building.</td>
</tr>
<tr>
<td>.52</td>
<td>v45</td>
<td>Modern building design.</td>
</tr>
<tr>
<td>.64</td>
<td>v46</td>
<td>Availability of waiting areas.</td>
</tr>
</tbody>
</table>

Eigenvalue = 1.71  
Per cent of variance = 2.9  
Cumulative variance explained = 50.7

Factor Eight: Customer's Benefit:

As shown in table 8.8, this factor accounts for 2.8 per cent of the explained variance. It includes four variables related to the aspects of bank competition in terms of incentives, facilities, and promotions provided by the bank to customers. Also, how respondents who are "banked with savings accounts" perceived its importance in influencing their selection of a bank. This factor consists of some benefits (advantages) provided by the banks to customers. Factor three of this study's factor analysis includes some personal saving benefits sought by savers. The present factor (factor eight) consists of other types of benefits provided by the bank to its customers in terms of facilities, such as variety of services, regular bank statements, competitive charges and promotions which
are associated with general dealing with the bank. In other words, they are facilities provided to all users of banking services in general as well as to users of the service of savings accounts. In their study Arora, Cavusgil, and Nevin (1985) used factor analysis and concluded a similar set of customer's benefits provided by banks to their customers.

Table 8.8: Factor Eight: Customer's Benefit.

<table>
<thead>
<tr>
<th>Loading</th>
<th>Variable Code</th>
<th>Variable Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>.49</td>
<td>v57</td>
<td>Full-range of services.</td>
</tr>
<tr>
<td>.65</td>
<td>v58</td>
<td>Bank provides regular statements.</td>
</tr>
<tr>
<td>.70</td>
<td>v59</td>
<td>Bank has competitive charges.</td>
</tr>
<tr>
<td>.69</td>
<td>v60</td>
<td>Bank provides different promotions.</td>
</tr>
</tbody>
</table>

Eigenvalue = 1.66  
Per cent of variance = 2.8  
Cumulative variance explained = 53.5

Factor Nine: Reasons for Saving:

Table 8.9 shows that this factor accounts for 2.5 per cent of the explained variance. It includes three variables, which represent the most important reasons, as indicated by respondents who are "banked with savings accounts", for having savings accounts at commercial banks in Iraq. Thus, this factor identified the most important reasons which motivated Iraqi consumers of banking services to hold a savings account at a commercial bank. It underlined that one of the reasons to save money by respondents is "to start a new business". In addition, respondents who are "banked with savings accounts" indicated that holding a savings account is a good method to keep surplus money together with being personally motivated to save are prime reasons which have influenced their saving behaviour.
Table 8.9: Factor Nine: Reasons for Saving.

<table>
<thead>
<tr>
<th>Loading</th>
<th>Variable Code</th>
<th>Variable Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>.45</td>
<td>v12</td>
<td>Starting a new business.</td>
</tr>
<tr>
<td>.61</td>
<td>v16</td>
<td>Good method to keep money.</td>
</tr>
<tr>
<td>.74</td>
<td>v19</td>
<td>Own decision (personally motivated).</td>
</tr>
</tbody>
</table>

Eigenvalue = 1.50  
Per cent of variance = 2.5  
Cumulative variance explained = 56.0

Factor Ten: Influence of Relationship:

Table 8.10 shows that this factor accounts for 2.4 per cent of the explained variance. It consists of two variables related to the role of reference groups in influencing respondents who are "banked with savings accounts" decisions to open savings accounts at commercial banks. It was concluded in chapter four of the present study that consumer banking behaviour can be influenced by some external factors. The influence of relationship, such as family and friends, is an important external factor on consumer banking behaviour. Therefore, the finding here confirmed the assumed importance of such relationships in influencing the behaviour of Iraqi consumers of banking services. In Iraq, as one of the Middle Eastern countries, social and family relationships are still very strong. Therefore, consumers are very likely willing to listen to their family and friends advice before making their decisions to buy a product or use a service. In his study of bank customers in Saudi Arabia, Yavas (1988) concluded that a friend's recommendation is an important factor to be considered by consumers.
Table 8.10: Factor Ten: Influence of Relationship.

<table>
<thead>
<tr>
<th>Loading</th>
<th>Variable Code</th>
<th>Variable Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>.79</td>
<td>v17</td>
<td>Advice from friends.</td>
</tr>
<tr>
<td>.78</td>
<td>v18</td>
<td>Advice from family members.</td>
</tr>
</tbody>
</table>

Eigenvalue = 1.44  
Per cent of variance = 2.4  
Cumulative variance explained = 58.4

Factor Eleven: Bank Loyalty:

This factor accounts for 2.2 per cent of the explained variance. It includes two variables, as shown in table 8.11, related to the aspects of bank loyalty, i.e., customer loyalty to a particular bank, in terms of its importance in influencing respondents who are "banked with savings accounts"' decision to open and maintain their savings accounts at a particular commercial bank. The subject of customer's loyalty to the bank depends on many aspects related to the relationship between the bank and the customer. Jain, Pinson and Malhorta (1987) investigated the difference between two groups, the bank loyal and non-loyal customers. Their findings indicated that the bank loyal group places much greater emphasis on the human aspects of banking while the non-loyal group is swayed by the economic rationale. Thus, the non-loyal customers are concerned about the financial benefits and services they receive from the bank, and if they feel that there is no economic rationale to continue dealing with the same bank they will not hesitate to change it. However, the loyalty factor extracted by this study's factor analysis consists of two types of bank loyalty variables. The first variable "I feel I own part of the bank" can be considered as one of the human aspects of bank-customer
relationship, which is of interest to bank loyal customers. The second variable "using other services at this bank" can be considered as one of the economic rationale to make a customer continue his/her dealing with the same bank.

Table 8.11: Factor Eleven: Bank Loyalty.

<table>
<thead>
<tr>
<th>Loading</th>
<th>Variable Code</th>
<th>Variable Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>.65</td>
<td>v11</td>
<td>I feel I own part of the bank.</td>
</tr>
<tr>
<td>.73</td>
<td>v14</td>
<td>Using other services at this bank.</td>
</tr>
</tbody>
</table>

Eigenvalue = 1.31
Per cent of variance = 2.2
Cumulative variance explained = 60.6

Factor Twelve: Access Convenience:

Table 8.12 shows that this factor accounts for 2.1 per cent of the explained variance. It includes three variables related to the subject of respondents who are "banked with savings accounts" access to their savings accounts, and how they evaluate the importance of their access to their savings in making their decision to open savings accounts at a particular commercial bank. Arora, Cavusgil and Nevin (1985) concluded a similar factor, and they labelled it as "accessibility". Thus, bank customers seek a convenience of access to the money they deposited at the bank, and this matter has an important influence on consumers decisions to select a bank. In the developed countries, the availability of the new banking technology, which provides easy access for bank customers to their money, is an important factor on consumers' bank selection decisions. However, in Iraq such facilities are not available to bank customers and other traditional methods of providing easy access to customers, such as many cashiers at a time,
are used by the banks to provide acceptable level of access convenience to customers.

Table 8.12: Factor Twelve: Access Convenience.

<table>
<thead>
<tr>
<th>Loading</th>
<th>Variable Code</th>
<th>Variable Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>.47</td>
<td>v7</td>
<td>Money is in a safe place.</td>
</tr>
<tr>
<td>.74</td>
<td>v9</td>
<td>I can easily deposit savings at the bank.</td>
</tr>
<tr>
<td>.68</td>
<td>v10</td>
<td>I can easily withdraw money from the bank.</td>
</tr>
</tbody>
</table>

Eigenvalue = 1.23
Per cent of variance = 2.1
Cumulative variance explained = 62.6

Factor Thirteen: Wailing Time:

This factor accounts for 1.9 per cent of the explained variance, as shown in table 8.13. It includes two variables related to the waiting time to be spent by respondents who are "banked with savings accounts" to process a single savings account transaction and how they perceive the importance of the length of time consumed to process a transaction at the bank in influencing their decision to open savings account at a particular commercial bank. One of the advantages of the availability of the new banking technology, such as the Automatic Teller Machines, is providing easy access to customers. This factor includes a second advantage which is provided by the new banking technology, that is, reducing the waiting time to be spent by customers each time they visit the bank to process a bank transaction. However, not all bank transactions are processed by using banking technology. Thus, even in the developed countries, bank customers are required to visit their bank and spend some waiting time before being served. In this factor, the emphasis is on
two connected types of waiting times. The first is the length of waiting time before being served and the second is the length of waiting time required to process the bank transaction itself. The total of the two waiting times represents the time which a customer needs to wait in order to finish a bank transaction. Bank customers attach a significant importance to the aspects of waiting time. Therefore, banks should attempt to make waiting times shorter, because the shorter the waiting time the more likely that a customer feels satisfied.

<table>
<thead>
<tr>
<th>Loading</th>
<th>Variable Code</th>
<th>Variable Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>.79</td>
<td>v31</td>
<td>Length of time required to process transaction.</td>
</tr>
<tr>
<td>.78</td>
<td>v32</td>
<td>Length of waiting time before being served.</td>
</tr>
</tbody>
</table>

Eigenvalue = 1.13  
Per cent of variance = 1.9  
Cumulative variance explained = 64.5

8.3 Testing Research Hypothesis:

The related research hypothesis, as stated in its null form, to be tested in this chapter is the following:

\( H_0 : \) There are no significant similarities between respondents who are "banked with savings accounts" in terms of their attitudes towards the service of savings accounts provided by commercial banks in Iraq.

The Kolmogorov-Smirnov One-Sample Goodness-of-Fit Test was used to test the above research hypotheses. The main reasons for choosing this statistical test to test the research hypotheses of this chapter are the following:
1. The Kolmogorov-Smirnov Test is a statistical test which can be applied in a one sample case. Thus, the sample used in the factor analysis of this chapter was a one sample case, i.e., the random sample of "banked with savings accounts" only.

2. The Kolmogorov-Smirnov Test is a statistical test which can be applied with data measured in an ordinal scale. Thus, the data gathered from the sample of "banked with savings accounts" and analysed in this chapter, was measured in an ordinal scale, i.e., respondents were asked to answer questions measured by 5-Point Likert Type Scale.

3. In addition to that, Siegel (1956) suggests that it would seem that in all cases where it is applicable, the Kolmogorov-Smirnov test is the most powerful goodness-of-fit test of all the one-sample case statistical tests.

   According to Kolmogorov-Smirnov test the value of the maximum deviation (D) for each variable is equal to the absolute value of the maximum deviation between the observed cumulative proportion \( [S_n(x)] \) and the theoretical cumulative proportion \( [F_o(x)] \).

   \[ D = \max \left| F_o(x) - S_n(x) \right| \]

   Where: \( n = \) number of respondents

   \( x = \) score of rating for each category within the variable.

   Using the above formula the value of (D) for each variable used in this analysis was calculated, as explained in Appendix B, and given in Table 8.14.
Table 8.14: D-values of the Kolmogorov-Smirnov Goodness-of-Fit Test for the Attitudinal Variables.

<table>
<thead>
<tr>
<th>Variable No</th>
<th>D-Value</th>
<th>Variable No</th>
<th>D-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>v1</td>
<td>.350a</td>
<td>v34</td>
<td>.321a</td>
</tr>
<tr>
<td>v2</td>
<td>.275a</td>
<td>v35</td>
<td>.486a</td>
</tr>
<tr>
<td>v3</td>
<td>.532a</td>
<td>v36</td>
<td>.453a</td>
</tr>
<tr>
<td>v4</td>
<td>.339a</td>
<td>v37</td>
<td>.419a</td>
</tr>
<tr>
<td>v5</td>
<td>.268a</td>
<td>v38</td>
<td>.321a</td>
</tr>
<tr>
<td>v6</td>
<td>.283a</td>
<td>v39</td>
<td>.290a</td>
</tr>
<tr>
<td>v7</td>
<td>.476a</td>
<td>v40</td>
<td>.294a</td>
</tr>
<tr>
<td>v8</td>
<td>.272a</td>
<td>v41</td>
<td>.336a</td>
</tr>
<tr>
<td>v9</td>
<td>.287a</td>
<td>v42</td>
<td>.328a</td>
</tr>
<tr>
<td>v10</td>
<td>.325a</td>
<td>v43</td>
<td>.374a</td>
</tr>
<tr>
<td>v11</td>
<td>.041d</td>
<td>v44</td>
<td>.430a</td>
</tr>
<tr>
<td>v12</td>
<td>.321a</td>
<td>v45</td>
<td>.268a</td>
</tr>
<tr>
<td>v13</td>
<td>.328a</td>
<td>v46</td>
<td>.404a</td>
</tr>
<tr>
<td>v14</td>
<td>.060d</td>
<td>v47</td>
<td>.231a</td>
</tr>
<tr>
<td>v15</td>
<td>.095b</td>
<td>v48</td>
<td>.283a</td>
</tr>
<tr>
<td>v16</td>
<td>.386a</td>
<td>v49</td>
<td>.249a</td>
</tr>
<tr>
<td>v17</td>
<td>.076c</td>
<td>v50</td>
<td>.452a</td>
</tr>
<tr>
<td>v18</td>
<td>.231a</td>
<td>v51</td>
<td>.351a</td>
</tr>
<tr>
<td>v19</td>
<td>.509a</td>
<td>v52</td>
<td>.230a</td>
</tr>
<tr>
<td>v20</td>
<td>.230a</td>
<td>v53</td>
<td>.162a</td>
</tr>
<tr>
<td>v21</td>
<td>.337a</td>
<td>v54</td>
<td>.207a</td>
</tr>
<tr>
<td>v22</td>
<td>.260a</td>
<td>v55</td>
<td>.204a</td>
</tr>
<tr>
<td>v23</td>
<td>.208a</td>
<td>v56</td>
<td>.181a</td>
</tr>
<tr>
<td>v24</td>
<td>.253a</td>
<td>v57</td>
<td>.389a</td>
</tr>
<tr>
<td>v25</td>
<td>.280a</td>
<td>v58</td>
<td>.264a</td>
</tr>
<tr>
<td>v26</td>
<td>.215a</td>
<td>v59</td>
<td>.223a</td>
</tr>
<tr>
<td>v27</td>
<td>.223a</td>
<td>v60</td>
<td>.392a</td>
</tr>
<tr>
<td>v28</td>
<td>.276a</td>
<td>v34</td>
<td>.321a</td>
</tr>
<tr>
<td>v29</td>
<td>.234a</td>
<td>v35</td>
<td>.486a</td>
</tr>
<tr>
<td>v30</td>
<td>.207a</td>
<td>v36</td>
<td>.453a</td>
</tr>
<tr>
<td>v31</td>
<td>.189a</td>
<td>v37</td>
<td>.419a</td>
</tr>
<tr>
<td>v32</td>
<td>.214a</td>
<td>v38</td>
<td>.321a</td>
</tr>
<tr>
<td>v33</td>
<td>.378a</td>
<td>v39</td>
<td>.290a</td>
</tr>
</tbody>
</table>

According to the table of Critical Values of (D) in the Kolmogorov-Smirnov One-Sample Goodness-of-Fit Test, the critical value of (D) for large sample under significant level of .01 is equal to:

\[
1.63 / \sqrt{(N)}
\]

Where \( N \) = The number of cases.
In this case for \( N = 265 \) the critical value of \( D \) is equal to \( .100 \). In other words, for \( N = 265 \), \( D \) greater than \( .100 \) has an associated probability under \( H_0 \) of \( p \) less than \( .01 \). Calculated values of \( D \) as shown in Table 8.14 for most variables exceed the critical value of \( D \) according to the Kolmogorov-Smirnov Test, therefore, the null hypothesis was rejected and the alternative hypothesis was accepted.

Table 8.14 shows that out of the 60 attitudinal variables used in the analysis, 56 were at significant level far beyond \( .01 \), one variable was at significant level between \( .01-.05 \), and 3 variables were at significant level over \( .05 \). In other words, out of the 60 variables used, 57 variables were of significant importance, and 3 variables were not significant. These results conclude that, there are some generally agreed attitudinal variables perceived by respondents who are "banked with savings accounts" as of significant importance in influencing their decisions to open savings accounts at commercial banks. In other words, the attitudes of respondents who are "banked with savings accounts" towards the variables related to the services of savings accounts provided by commercial banks are similar.

8.4 Conclusions:

The main objective of this chapter was to identify a set of factors which are capable of explaining, how respondents who are "banked with savings accounts" perceive the importance of different attitudinal variables in influencing their decisions to open savings accounts at commercial banks.

The findings of Factor Analysis - Principle Components Analysis identified thirteen factors, which explain those
respondents' attitudes towards the service of savings accounts provided by commercial banks in Iraq. In other words, a number of 57 variables, out of 60 attitudinal variables, were loaded with the factors extracted. Therefore, the reason for using factor analysis in this investigation was achieved. Factor analysis extracted a minimal number of saving behaviour factors to replace the larger number of independent variables, with minimum loss of information.

In addition, the Kolmogorov-Smirnov One-Sample Goodness-of-Fit Test confirmed that there were some generally agreed attitudinal variables of significant importance in influencing respondents who are "banked with savings accounts" decisions to open savings accounts at commercial banks. In other words, respondents who are "banked with savings accounts", in general, share the same attitudes towards the service of savings accounts provided by commercial banks and there are similarities in their saving behaviour.

Finally, two tests for FA reliability were used, these are Bartlett's Test of Sphericity and Kaiser-Meyer-Olkin, which indicated that this study's factor analysis is reliable and the correlation matrix between the variables can be used in this study's factor model.
CHAPTER NINE

THE FINDINGS OF DISCRIMINANT ANALYSIS AND T-TEST

9.1 INTRODUCTION.

9.2 INTERPRETATION OF THE FINDINGS.

9.2.1 THE FINDINGS OF DISCRIMINANT ANALYSIS - DISCRIMINATING BETWEEN RESPONDENTS ACCORDING TO THEIR SAVING DECISIONS "BANKED WITH SAVINGS ACCOUNTS VS. NON-BANKED".

9.2.2 THE FINDINGS OF T-TEST.

9.2.2.1 RESPONDENTS' SAVING HABITS (GOOD VS. POOR SAVERS).

9.2.2.2 RESPONDENTS' AGE GROUP.

9.2.2.3 RESPONDENTS' FAMILY SIZE.

9.2.2.4 RESPONDENTS' INCOME GROUP.

9.2.2.5 RESPONDENTS' EDUCATIONAL LEVEL.

9.3 COMPARISON WITH OTHER STUDIES OF CONSUMERS' SAVING BEHAVIOUR.

9.4 CONCLUSIONS.
9.1 Introduction:

The main objective of this chapter is to establish the extent to which dissimilarities exist between Iraqi consumers in terms of the rates of importance they attached to the variables related to the service of savings accounts provided by commercial banks, if divided according to their: (a) saving decisions "banked with savings accounts" vs. "non-banked"; (b) saving habits "good vs. poor savers"; (c) age group; (d) family size; (e) income group; and (f) educational level.

In other words, the purpose is to establish the extent to which differences exist between respondents' attitudes according to the above mentioned characteristics. Therefore, Two-Group Discriminant Analysis and T-test were utilised in order to achieve the stated above objective.

9.2 Interpretation of the Findings:

9.2.1 The Findings of Two-Group Discriminant Analysis:

Discriminating Between Respondents According to their Saving Decisions "banked with savings accounts" vs. "non-banked":

The main purpose of this section is to establish the extent to which dissimilarities exist between consumers who are "banked with savings accounts" and "non-banked" in terms of their attitudes towards the variables related to the service of savings accounts provided by commercial banks in Iraq.

The primary data collected from a number of 621 respondents, out of the original sample of 800 respondents, was analysed in this
section. A Step-Wise Discriminant Analysis for Two-Groups of Wilks' lambda (U statistic) method was used in this section. The Wilks' lambda (U statistic) method was adopted because, it helps to include only the significant variables in the process of groups classification, and eliminate the insignificant variables in order to provide a model contains the optimum set of variables.

The Two-Group Discriminant Analysis, as one of the dependent methods of multivariate analysis, can be used when the study has one single dependent variable, which is dichotomous. Thus, in this study the variable respondent saving decisions to be saver, i.e., banked with savings accounts, or non-saver, i.e., non-banked, is the dichotomous variable.

Sheth (1971) mentioned that the primary objective of Discriminant Analysis is to correctly classify entities into mutually exclusive and exhaustive classes or groups. Grimm (1974) demonstrates the case for choosing Discriminant Analysis among other dependent methods by explaining that: Discriminant Analysis classifies individuals or objects into one of two or more exclusive groups, in contrast to Regression Analysis and Multiple Classification Analysis (MCA) that position individuals or objects on a continuum. The dependent variable is categorical in Discriminant Analysis. While, it is continuous for Regression Analysis and MCA. The objective of Discriminant Analysis is to determine the group or category to which an individual belongs.

Based on the above assumptions, this section Discriminant Analysis objective is to classify respondents into two mutually exclusive and exhaustive groups, i.e., in this case consumers who are "banked with savings accounts" and "non-banked". Thus, the single dependent categorical dichotomous variable required by
Discriminant Analysis for the purpose of classification in this investigation is variable (p1), i.e., respondents' saving decisions (hold / not hold a savings account). Respondents were asked to indicate if they presently hold a savings account at a commercial bank. Those who replied "Yes" were classified as "banked with savings accounts", and those who replied "No" were classified as "non-banked". Based on the above, the entail Discriminant Analysis classification results shown in Table 9.1 indicated that out of the 621 cases used, 265 respondents were "banked with savings accounts" and 356 were "non-banked".

Table 9.1: Number of Cases by Groups.

<table>
<thead>
<tr>
<th>Variable P1</th>
<th>Label</th>
<th>Number of Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Yes</td>
<td>265 &quot;banked with savings accounts&quot;</td>
</tr>
<tr>
<td>1</td>
<td>No</td>
<td>356 &quot;non-banked&quot;</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>621</td>
</tr>
</tbody>
</table>

A number of 65 independent predictor variables were used in the analysis, in order to establish which are of them are the most important variables in distinguishing between the two groups of respondents "banked with savings accounts" and "non-banked". Since the analysis contained only two groups, i.e., "banked with savings accounts" and "non-banked", the Discriminant Analysis produced only one function. The results of the canonical discriminant function of the analysis, as shown in table 9.2, indicated that both Wilks' Lambda .84 and its associated Chi-square statistic 85.23, which is significant at .0000 significance level, confirmed that there is a
significant discrimination between the two groups of respondents "banked with savings accounts" and "non-banked". Also, these results confirmed that the group mean values for both groups are not equal.

Table 9.2 The Canonical Discriminant Function.

<table>
<thead>
<tr>
<th>Function 1</th>
<th>Eigenvalue</th>
<th>% of variance</th>
<th>Cumulative %</th>
<th>Canonical correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.1452</td>
<td>100</td>
<td>100</td>
<td>.621</td>
</tr>
<tr>
<td>After Wilks' Function 0</td>
<td>lambda .84</td>
<td>Chi-squared 85.23</td>
<td>D.F 18</td>
<td>Significance .0000</td>
</tr>
</tbody>
</table>

However, the results of the Discriminant Analysis shown in table 9.3 indicated that a number of 18 variables are to be considered as having the most discriminating power between the two groups.
Table 9.3: Standardized Canonical Discriminant Function Coefficients and Group Means for the Discriminating Variables "banked with savings accounts" vs. "non-banked".

<table>
<thead>
<tr>
<th>No</th>
<th>Variable Name</th>
<th>Rank</th>
<th>Function 1</th>
<th>Group Mean Banked</th>
<th>Group Mean Non-banked</th>
</tr>
</thead>
<tbody>
<tr>
<td>v15</td>
<td>Higher interest on savings.</td>
<td>1</td>
<td>-.5032</td>
<td>2.74</td>
<td>2.39</td>
</tr>
<tr>
<td>v53</td>
<td>AD on Radio.</td>
<td>2</td>
<td>-.4823</td>
<td>2.57</td>
<td>2.35</td>
</tr>
<tr>
<td>v61</td>
<td>I am a good saver.</td>
<td>3</td>
<td>.3987</td>
<td>2.14</td>
<td>2.37</td>
</tr>
<tr>
<td>v63</td>
<td>To buy anything other than a house on credit is unwise.</td>
<td>4</td>
<td>.3651</td>
<td>2.05</td>
<td>2.37</td>
</tr>
<tr>
<td>v1</td>
<td>Savings help to meet increasing living expenses.</td>
<td>5</td>
<td>-.2968</td>
<td>1.93</td>
<td>1.80</td>
</tr>
<tr>
<td>v44</td>
<td>Easy entrance to and exit from bank building.</td>
<td>6</td>
<td>.2901</td>
<td>1.72</td>
<td>1.88</td>
</tr>
<tr>
<td>v27</td>
<td>Bank management is always available for consultation.</td>
<td>7</td>
<td>-.2836</td>
<td>2.37</td>
<td>2.19</td>
</tr>
<tr>
<td>v18</td>
<td>Advice from family members.</td>
<td>8</td>
<td>-.2517</td>
<td>2.33</td>
<td>2.15</td>
</tr>
<tr>
<td>v12</td>
<td>Savings help to start a new business.</td>
<td>9</td>
<td>.2422</td>
<td>1.98</td>
<td>2.08</td>
</tr>
<tr>
<td>v64</td>
<td>A person can save a lot of money by looking for the lowest possible prices when shopping.</td>
<td>10</td>
<td>-.1988</td>
<td>2.19</td>
<td>2.18</td>
</tr>
</tbody>
</table>
Table 9.3 (Continued)

<table>
<thead>
<tr>
<th>No</th>
<th>Variable Name</th>
<th>Rank</th>
<th>Function 1</th>
<th>Group Mean</th>
<th>Banked</th>
<th>Non-banked</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>v40</td>
<td>Bank is located near place of employment.</td>
<td>11</td>
<td>.1892</td>
<td>2.02</td>
<td>2.17</td>
<td></td>
</tr>
<tr>
<td>v20</td>
<td>Bank personnel are concerned about their customers.</td>
<td>12</td>
<td>.1773</td>
<td>2.41</td>
<td>2.39</td>
<td></td>
</tr>
<tr>
<td>v3</td>
<td>Savings help to feel family is protected in emergencies.</td>
<td>13</td>
<td>.1741</td>
<td>1.38</td>
<td>1.48</td>
<td></td>
</tr>
<tr>
<td>vl0</td>
<td>I can easily withdraw savings from the bank.</td>
<td>14</td>
<td>.1703</td>
<td>2.03</td>
<td>2.13</td>
<td></td>
</tr>
<tr>
<td>v16</td>
<td>Savings account is a good method to keep surplus money.</td>
<td>15</td>
<td>-.1521</td>
<td>1.81</td>
<td>1.79</td>
<td></td>
</tr>
<tr>
<td>v6</td>
<td>Savings help in buying property for the family.</td>
<td>16</td>
<td>-.1432</td>
<td>2.14</td>
<td>1.99</td>
<td></td>
</tr>
<tr>
<td>v50</td>
<td>Bank has a good reputation.</td>
<td>17</td>
<td>-.1395</td>
<td>1.59</td>
<td>1.60</td>
<td></td>
</tr>
<tr>
<td>v32</td>
<td>Length of waiting time before being served.</td>
<td>18</td>
<td>.1362</td>
<td>2.40</td>
<td>2.51</td>
<td></td>
</tr>
</tbody>
</table>

Table 9.3 includes the ranking order of the discriminating variables, which are extracted by Discriminant Analysis, together with their standardized coefficients, and group means. The ranking order indicates that variables with large coefficients (in absolute value) are contributing more to the overall discriminant function. In other words, they have more discriminating power to discriminate between the two groups. For example, variable (v15) has the highest contribution in the discriminant function in absolute value (function 1 = -.5032), followed by variable (v53), and so on. Thus,
the higher the standardized coefficient value, the more contribution in the discriminant function.

Norusis (1985) suggested that the actual signs of the coefficients of variables are arbitrary. Thus, for example, the negative coefficient of the variables shown in table 9.3 could just as well be positive, if the signs of other coefficients were reversed.

Furthermore, the value of the group mean for each variable indicates the group, which attached more importance to that variable. Thus, as the group mean value of a variable for respondents "banked with savings accounts" is less than that of "non-banked", that means respondents "banked with savings accounts" attached more importance to that variable than "non-banked". On the other hand, as the group mean value of a variable for "non-banked" is less than that of "banked with savings accounts", that means "non-banked" attached more importance to that variable than "banked with savings accounts". Therefore, it should be mentioned here that, the variables used in this study were measured by a 5-point Likert type scale, from 1 = very important to 5 = not important at all. Therefore, the lower the group mean value for a variable, the more importance attached to it by respondents.

In addition, the group mean values shown in table 9.3 explain that the group of "banked with savings accounts" attached more importance to 9 variables while the group of "non-banked" attached more importance to 9 other variables. Based on the above, the results of the DA, as shown in table 9.3, are to be discussed for each discriminating variable as follows:
Consumers' Attitudes Towards Savings Accounts:

Table 9.3 shows that seven variables, that are related to consumers' attitudes towards savings accounts, were extracted by Discriminant Analysis as variables of significant ability in discriminating between the two groups "banked with savings accounts" and "non-banked", and they are the following:

The variable (v1) "savings help to meet increasing living expenses" was ranked fifth in terms of its importance in discriminating between the two groups. However, its group mean values suggest that the group of "non-banked" attached more importance to the idea that savings help to meet increasing living expenses than the group of "banked with savings accounts". However, the rate of importance, i.e., the group means, indicated that both groups attached a high degree of importance to this variable. In other words, both groups think that savings help in meeting the increasing living expenses. It is true that the group of "non-banked" attached more importance to this saving motivation than the group of "banked". The reason for such a difference lays in the fact that the group of "banked with savings accounts" are actual savers and they know that, for example, the real value of the interest they receive on their savings has little effect in overcoming the increase in the living expenses because the rate of inflation is much higher than the base rate of interest in Iraq. However, they indicated that they consider depositing their money at the bank and keeping it for future use and even receiving some interest on it is better than spending it or receiving nothing should they keep the money in their homes. The group of "non-banked", on the other hand, thought, for example, that the interest a saver may receive will help considerably in meeting the increase in future living expenses.
merely because they are not actual savers and their opinion is based on their common sense rather than on real experiences.

The variable (v3) "feel family is protected in emergency" was ranked thirteenth in terms of its importance in discriminating between consumers who are "banked with savings accounts" and "non-banked". However, its group mean values suggest that the group of "banked with savings accounts" attached more importance to this variable than "non-banked". In other words, the group of "banked with savings accounts" think that savings help them in feeling the family is protected in case of emergencies than think so the group of "non-banked". As shown in table 9.3 both groups attached a high rate of importance to the reason for saving, "feeling the family is protected in case of emergencies". In Iraq, people save the surplus money they can spare today to meet one of those emergencies which may happen to a member of the family, particularly since health insurance and other types of insurance, such as life and accident insurance, are not in common use. Saving through savings accounts or simply keeping money (cash) at home ready for use in case of emergency is generally considered by the Iraqi consumer as the best insurance they may have. This explained why this reason for saving, as shown in table 9.3, received the highest rate of importance by respondents of both groups in comparison with all other variables. One can conclude that this is the strongest reason for saving in Iraq.

The variable (v6) "buying property for the family" was ranked sixteenth in terms of its importance in discriminating between the two groups of respondents "banked with savings accounts" and "non-banked". Also, its group mean values suggest that the group of "non-banked" attached more importance to the idea that savings help in
buying property for family accommodation than the group of "banked with savings accounts". By analysing the group mean values for this variable one can conclude that this reason for saving received a moderate rate of importance by both groups. In fact, the group of "banked with savings accounts", as actual savers, attached less rate of importance to this reason because they may think that savings provide little help in buying a property for family accommodation. However, this can be a real strong reason for saving if only the amount of savings is large enough to cover the cost of buying a property. In reality such a case is rare and most people need a mortgage to cover the price of buying a property for family accommodation.

The variable (v12) "starting a new business" was ranked ninth in terms of its importance in discriminating between respondents who are "banked with savings accounts" and "non-banked". However, its group mean values suggest that the group of "banked with savings accounts" attached more importance to the idea that savings help to start a new business than "non-banked". The possible reason for attaching a higher rate of importance for this reason for savings, i.e., starting a new business, by the group of "banked with savings accounts" due to the fact that they are actual savers and some of them perhaps used their savings when they started their businesses. Most Iraqi owners of small business, in particular, depend on their savings to finance their businesses. Thus, because Iraqi banks are reluctant to provide credit to small businesses. It can be said that banking facilities, such as credit, are mostly out of reach for owners of small businesses. This is because the banks terms for credit are very tight and mostly designed to be available for medium and large businesses.
The variable (v16) "a good method to keep surplus money", as one of the motivations to have a savings account, was ranked fifteenth in terms of its importance in discriminating between the two groups of respondents "banked with savings accounts" and "non-banked". However, its group mean values suggest that both groups attached a high degree of importance for this motivation. In other words, although the group mean value for "non-banked" is marginally less than that of "banked with savings accounts", i.e., the group of "non-banked" attached more importance to it than "banked with savings accounts", the difference is still very small. This finding underlined the fact that both groups acknowledged that having a savings account is a good method to keep surplus money. Also, it is a good method to keep surplus money because the money saved at the bank is more likely to be kept longer as savings for future use in a secure place rather than money saved, for example at home, which are subject to possible spend or even theft. However, the difference in the rate of importance attached by the two groups is very small. Therefore, it emphasised the fact that both groups evaluated holding a savings account at a commercial bank as a good method to keep surplus money.

The variable (v32) "length of waiting time" is one of the service attributes. However, it has the lowest rank (eighteenth) in terms of its importance in discriminating between consumers who are "banked with savings accounts" and "non-banked". Also, its group mean values suggest that the group of "banked with savings accounts" attached more importance to this service attribute than "non-banked". This finding refers to the fact that the group, "banked with savings accounts" because, they experienced the importance of waiting time and its effect on their satisfaction,
they attached more importance to this variable than the group of "non-banked". Thus, the group of "banked with savings accounts" attached higher rate of importance to the length of waiting time before being served than the group of "non-banked" mainly because they are actual users of the service of savings accounts provided by commercial banks. In fact, customers of banking services in Iraq suffer from the problem of long waiting time they have to spend every time they visit their banks mainly because of the lack of new banking technology and poor banking services in Iraq.

The variable (v10) "easily withdraw savings" is one of the service attributes. It was ranked fourteenth in terms of its importance in discriminating between consumers who are "banked with savings accounts" and "non-banked". However, its group mean values suggest that the group of "banked with savings accounts" attached more importance to this service attribute than "non-banked". In fact, such a conclusion is expected, because consumers who are "banked with savings accounts" experienced the importance of an easy access to their savings whenever they need to withdraw some money. In addition, this variable is a reflection of the importance attached by actual customers (in this case consumers who are "banked with savings accounts") to the technological and other facilities provided by banks to its customers in satisfying their needs to have an easy access to their money. Thus, at the present time, banks have attempted to use the best of what technology can provide in order to satisfy their customers. Therefore, new technology such as, for example, the Automated Teller Machines serves as an advanced method to provide an easy access for customers to their money which they have deposited at the bank, and it is a service now highly appreciated by them.
Consumers' Attitudes Towards Bank Attributes:

Table 9.3 indicates that seven variables related to the aspects of bank attributes and consumers' attitudes towards them, were extracted by Discriminant Analysis as variables of significant ability in discriminating between consumers who are "banked with savings accounts" and "non-banked". These variables are the following:

The variable (v20) "bank personnel concerned about customers" is related to the subject of bank-customer relationship as one of the bank attributes. It was ranked twelfth in terms of its importance in discriminating between the two groups. However, its group mean values suggest that both groups "banked with savings accounts" and "non-banked" attached nearly the same rate of importance to this bank attribute. In other words, although it seemed that the group of "non-banked" attached marginally more importance to this attribute than the group of "banked with savings accounts", the difference is still very small between the two groups. Both groups of respondents indicated that they viewed "customer care" as expressed by the bank's staff, as an important aspect of bank-customer relationship. In fact, in the banking sector, where the service is the main commodity, customers want to be served with style and respect. This is the essence of old and modern banking. However, in Iraq such a banking atmosphere is still far from being attained and the bank-customer relationship is very poor for a number of reasons as described in detail in chapter two of the present investigation.

The variable (v27) "availability of bank management for consultation" is also related to the subject of bank-customer relationships (personal aspects). It was ranked seventh in terms of
its importance in discriminating between the two groups. However, its group mean values suggest that the group of "non-banked" attached more importance to the availability of bank management for consultation than the group of "banked with savings accounts". In other words, the availability of management consultation services seemed to be more important for "non-banked" than for "banked with savings accounts". Such a finding explains the fact that non-customers "non-banked" have less knowledge about the services and some hesitation in dealing with banks. Therefore, they prefer the existence of such a facility. Existing customers, such as "banked with savings accounts" are less concerned about the availability of such a consultation since they believe that they are in possession of enough information about the services provided by the bank.

The variable (v53) "AD on Radio" is related to the subject of bank advertising techniques. However, it was ranked second in terms of its importance in discriminating between consumers who are "banked with savings accounts" and "non-banked". Also, its group mean values suggest that the group of "non-banked" attached more importance to using Radio stations by banks in advertising for their services than the group of "banked with savings accounts". In fact, this finding is related very closely to this research case study, i.e., the Iraqi consumers. Thus, Radio stations are still the dominant tool in public communications because they broadcast for longer hours (day and night), and can be heard in all parts of the country. Also, it is cheaper for people to buy a Radio than, for example, a T.V. set.

The variable (v50) "reputation of the bank" is one of the aspects of consumers' confidence in a bank. However, it has the second lowest rank (seventeenth) in terms of its importance in
discriminating between consumers who are "banked with savings accounts" and "non-banked". Its group mean values suggest that both groups "banked with savings accounts" and "non-banked" attached a great importance to bank reputation (the difference is very marginal). This finding confirms that in Iraq consumers consider a bank's reputation as one of the most important bank attributes. This finding is similar to the findings of previous similar studies carried out in other environments (countries) which suggested that a bank's reputation is considered as an important attribute by consumers as mentioned earlier in chapter three of this investigation.

The variable (v40) "bank located near place of employment" is one of the convenience of bank location variables. It was ranked eleventh in terms of its importance in discriminating between consumers who are "banked with savings accounts" and "non-banked". However, its group mean values suggest that the group of "banked with savings accounts" attached more importance to the idea that a bank is located near place of employment than "non-banked". Such a finding refers to the fact that consumers who are "banked with savings accounts", as actual users of the service in Iraq, concluded by their own experience that banks located near their place of employment are more convenient in terms of location. In other words, banks located near the place of the source of their income, are more convenient for the purposes of depositing or withdrawing money from the bank. All the same, the findings of previous similar studies carried out in other countries, as mentioned in chapter three, indicated that consumers consider banks located near their place of employment is more convenient.
The variable (v15) "higher interest on savings" is one of the competition factors, which may influence consumers decision to open savings accounts at a particular commercial bank. However, it seemed that this variable has the highest importance in discriminating between consumers who are "banked with savings accounts" and "non-banked". Its group mean values suggest that the group of "non-banked" attached more importance to higher interest on savings than the group of "banked with savings accounts". The obvious reason for such a finding is that, consumers who are "banked with savings accounts", in general and especially in this case study, i.e., the Iraqi consumers, seek a safer place to deposit their surplus money in, rather than to gain interest on their savings. Such a market situation is a generation of two major market characteristics: Firstly, consumers who are "banked with savings accounts", generally, are people with a surplus money who do not have the opportunity to invest it, or are people who seek only a safer place to keep their surplus money. Even so, there are some consumers who are "banked with savings accounts" who wish to gain interest as well. Secondly, the rate of interest in this case study, i.e., the rate of interest in Iraq, is very low if compared with any rate of return that can be gained from investing in business. Thus, this finding explains why both "banked with savings accounts" and "non-banked" attached some importance to the rate of interest on savings. In addition to the above, in most Islamic countries a fixed interest rate is perceived with caution for religious reasons. In other words, because in Islam receiving interest on savings or lending is not allowed, many people perceive the fixed rate of interest as not important. In fact, some actual holders of savings accounts in Iraq, as is the case in most Islamic countries, used to ask the bank not
to give them any interest on their savings, because they sought only a safe place to put their surplus money. In his study of consumer banking behaviour in Saudi Arabia, Yavas (1988) suggested that the rate of interest has the least important effect in influencing consumers' saving decisions. This does not suggest that consumers of banking services in Islamic countries are not profit motivated. Erol and El-Bdour (1989) indicated that customers of Islamic banks in Jordan are profit motivated as long as the rate of return they receive is compatible with Islamic legal doctrines. In other words, according to Islam receiving a fixed in advance rate of interest on savings is not permitted, but receiving a fair unfixed in advance rate of return on investment is acceptable. This is the fundamental idea behind the newly established Islamic banks in some Islamic countries. However, in Iraq there is not-as-yet an Islamic bank, and only traditional commercial banks are providing commercial banking services for consumers. Therefore, customers of commercial banks in Iraq who do not want to receive the fixed rate of interest paid by banks usually declare that they do not want to receive any return on their savings. Other Iraqi bank customers who have no objection towards the fixed rate of interest receive their interest as usual.

The variable (v44) "easy entrance to and exit from bank building" is related to the subject of the attributes of bank building design. However, it was ranked sixth in terms of its importance in discriminating between the two groups. Its group mean values suggest that the group of "banked with savings accounts" in Iraq, as they are actual customers, attached more importance to this attribute of bank building design than "non-banked". That is mainly because they are the segment of consumers who know the importance of bank building design, and the facilities it provides for customers.
Thus, consumers who are "banked with savings accounts" are actual customers, and their opinions on the effect of bank building design on their selection of a bank to put their savings in is a product of real experience. Thus, the findings of previous similar studies, as mentioned in chapter three, suggested that bank customers give more importance to the design of the bank building, when they select a bank.

Consumers' Financial Psychographic Characteristics:

As shown in table 9.3 four variables, that are related to consumers' financial psychographic characteristics, were extracted by Discriminant Analysis as variables of significant ability in discriminating between consumers who are "banked with savings accounts" and "non-banked". These four variables are the following:

The variable (v18) "advice from family members" is an indication used to show the importance of the family, as one of the reference groups, in influencing consumers' saving decisions (hold / not hold a savings account). Table 9.3 indicates that this variable has the eighth rank in terms of its importance in discriminating between the two groups. But, its group mean values suggest that the group of "non-banked" attached more importance to the advice of family members in influencing their saving behaviour than the group of "banked with savings accounts" in Iraq. The group of "banked with savings accounts" attached a moderate importance to the advice of family members in influencing their saving behaviour. This finding concludes that one of the important financial psychographic characteristics of the actual users of the service of savings accounts provided by commercial banks is that they are more independent in making their financial decision than appeared to be the group of "non-banked" in Iraq. In fact, most previous studies,
as mentioned in chapter three, indicated that users of banking services are more independent in making their financial decisions than non-users.

The variable (v61) "I am a good saver" was used to let each respondent evaluate his / her saving behaviour. It was ranked third in terms of its importance in discriminating between the two groups. However, as expected, consumers who are "banked with savings accounts" expressed more agreement with this statement than "non-banked". It should be added that both groups "banked with savings accounts" and "non-banked" expressed a mild agreement with this statement. Such a conclusion indicates that both groups are dissatisfied with their saving behaviour. In other words, in the case of the group of "banked with savings accounts" they evaluate themselves as not good enough as savers and they wish to be better savers in the future. In the case, i.e., the group of "non-banked", they know that they are not good savers in terms of having savings accounts at banks, but their group mean value suggests that some of them are actual savers. That is because some of them indicated that they are good savers, when they were questioned if they consider themselves as good savers. Thus, the methods of saving they used were different. This is to say that in Iraq not all savers save through having a savings account at banks. Thus, there are other popular methods to save money rather than putting them in savings accounts or investing them in properties or businesses. In other words, many people prefer to put their money in a secure place in their homes or transform it into gold, and other jewelry, rather than putting it into savings accounts or investing it.

The variable (v63) "buying other than a house on credit is unwise" was used to provide more insights about respondents
financial behaviour. It was ranked fourth in terms of its importance in discriminating between the two groups of "banked with savings accounts" and "non-banked". However, its group mean values suggest that both groups attached a moderate degree of agreement with this statement. In other words, they think that this statement is an extreme opinion. That is, they think that, it is better not to buy anything except a house on credit but some of them think, that in some circumstances, one can buy, for example, a car on credit. Such a conclusion indicates that one of the psychographic characteristics of both groups is they are generally cautious people in terms of borrowing money. In other words, they think that borrowing should be the last recourse especially when it comes to borrow money for reasons other than buying a house for family accommodation. By analysing the group mean values of both groups it can be concluded that the group of "banked with savings accounts" appeared to be more cautious regarding the use of credit, than their counterpart the group of "non-banked".

Finally, the use of the variable (v64) "buying in lowest prices saves money" was another attempt to discover more about consumers' financial thinking and behaviour. However, it was ranked tenth in terms of its importance in discriminating between the two groups. Its group mean values suggest that both groups, "banked with savings accounts" and "non-banked", attached a moderate degree of agreement with this statement. In addition, the difference between the two groups mean values were very marginal. By looking at the group mean values one can conclude that both groups, "banked with savings accounts" and "non-banked", gave the price of a product moderate importance when they decided to buy it. In other words, they viewed the price of a product as one factor affecting their
buying decisions, in addition to other characteristics, such as the quality of the product.

Finally, the findings of the DA reported in this section can be summarised, as shown in table 9.4, in order to indicate the most important dissimilarities between the two groups of respondents "banked with savings accounts" and "non-banked".

Table 9.4: Summary of dissimilarities between "banked" and "non-banked" respondents.

<table>
<thead>
<tr>
<th>Banked with savings accounts</th>
<th>Non-banked</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. View themselves as good savers and cautious in terms of borrowing money.</td>
<td>1. Acknowledged that they are not good savers.</td>
</tr>
<tr>
<td>2. Motivated to be savers by a set of saving motivations.</td>
<td>2. More concerned about the return on their saving if they decide to save money.</td>
</tr>
<tr>
<td>3. Banking facilities provided by the bank has a positive influence on their banking decision.</td>
<td>3. Attached high importance to financial advice and consultation.</td>
</tr>
<tr>
<td>4. Concerned about aspects of bank location, bank building design and bank reputation.</td>
<td>4. Attached high importance to information about the bank services in terms of advertisement.</td>
</tr>
<tr>
<td>5. Attached high importance to the length of waiting time they have to spend every time they visit the bank.</td>
<td>5. In general, this group lacks knowledge in banking and it has a negative influence on their banking behaviour.</td>
</tr>
<tr>
<td>6. In general, this group enjoys a good knowledge in banking and it has positive influence on their banking behaviour.</td>
<td></td>
</tr>
</tbody>
</table>

Sample Classification Results:

Table 9.5 shows the sample classification results of this study's Discriminant Analysis. It shows that the discriminant function correctly classified 408 cases out of 621. In other words, 65.70 per cent of grouped cases were correctly classified by the analysis. The value of chi-square statistic for the classification results of the discriminant function is equal to 85.23, which has a corresponding significant level of (.0000). Also, table 9.5 shows
that 66.8 per cent of respondents who are "banked with savings accounts" were correctly classified as "banked with savings accounts", and 64.9 per cent of "non-banked" were correctly classified as "non-banked". Thus, the results shown in table 9.5 concluded that: (a) there is a substantial discriminating power between the two groups; and (b) the equally likely chance of classification without knowing the population distribution of "banked with savings accounts" and "non-banked" should be equal to 50 per cent. Therefore, a classification result of 65.70 per cent confirmed that the model improved over equally likely chance predictions.

Figure 9.1 each and all-groups stacked histogram shows that there are only two groups, "banked with savings accounts" and "non-banked", therefore, only one discriminating function was extracted. Thus, the horizontal axis is the discriminant function derived by the analysis. The groups into which the cases were classified, given their discriminate function scores, were indicated by the labelling of the horizontal axis. Thus, the canonical discriminant function evaluated at group mean (group centeroid) for the group of "banked with savings accounts" is equal to (-.45714), and for the group of "non-banked" is equal to (.33652). This findings indicate that the group means for both groups are not equal. In other words, there are significant dissimilarities between the two groups in terms of their attitudes towards the service of savings accounts provided by commercial banks in Iraq.
Table 9.5: Groups Classification Results.

<table>
<thead>
<tr>
<th>Actual Group</th>
<th>No. of Cases</th>
<th>Predicted Group Membership</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>&quot;banked&quot;</td>
</tr>
<tr>
<td>Group Yes &quot;banked&quot;</td>
<td>265</td>
<td>177</td>
</tr>
<tr>
<td></td>
<td></td>
<td>66.8%</td>
</tr>
<tr>
<td>Group No &quot;non-banked&quot;</td>
<td>356</td>
<td>125</td>
</tr>
<tr>
<td></td>
<td></td>
<td>35.1%</td>
</tr>
</tbody>
</table>

Overall per cent of cases correctly classified = 65.70%
Chi-square statistic = 85.23
Significance level = .0000

Testing the Research Hypothesis:

The research hypothesis to be tested, as stated in its null form, is the following:

Hypothesis H0: There are no significant dissimilarities between respondents who are "banked with savings accounts" and "non-banked" in terms of their attitudes towards the service of savings accounts provided by commercial banks in Iraq.

The output of Step-Wise Two-Group Discriminant Analysis indicates that the canonical discriminant functions evaluated at group means (group centroids) for the two groups are not equal ("banked with savings accounts" = -.45714 and "non-banked" = .33652). These results indicated that the two groups of "banked with savings accounts" and "non-banked" differ significantly.
In addition to above, the output of the analysis provided the following information, which refers to the fact that there are significant differences between the two groups:

Firstly, the significant level of the observed Wilks' lambda can be based on chi-square transformation of the statistic. Therefore, the value of Wilks' lambda in this analysis was equal to .84 and its associated Chi-square value was equal to 85.23, which has an associated significance level of .0000. Therefore, the null hypothesis (H0), that the group mean values are equal for both groups is rejected.

Secondly, the classification results presented in table 9.5, together with the all-group stacked histogram shown in figure 9.1, indicate that there are significant differences between the two groups.

Thirdly, the results of the analysis proved that 18 variables were found to be of significant importance in discriminating between the two groups of "banked with savings accounts" and "non-banked". This conclusion is based on the contribution made by these variables in discriminating between the two groups, according to their group mean values and their standardized canonical discriminant function coefficients, as shown in table 9.3.

Fourthly, based on the values of Wilks' lambda, which were converted into variance ratio (F-values) for the purpose of testing the significance of the discriminant function. The output of the Discriminate Analysis confirmed that the values of the Wilks' lambda
for the 18 discriminating variables were all significant at .000 significance level.

Therefore, based on the above findings the null hypothesis (H0) is rejected in favour of the alternative hypothesis. In other words, this section analysis results confirmed that there are significant dissimilarities between respondents who are "banked with savings accounts" and "non-banked" in terms of their attitudes towards the variables related to the service of savings accounts provided by commercial banks in Iraq.

9.2.2 The Findings of T-Test:

In the previous section (section 9.2.1) respondents were compared according to their saving decisions, i.e., "banked with savings accounts" vs. "non-banked". The attempt will be made to explore the dissimilarities between respondents in terms of the rates they attached to a number of motivations and reasons for saving together with some service and bank attributes. Therefore, the t-test will be used to investigate the dissimilarities between respondents if divided according to their saving habits, age, family size, income and educational level.

9.2.2.1 Respondents' Saving Habits

The results of the t-test for comparing respondents according to their saving habits, i.e., good vs. poor savers, as presented in table 9.6, indicated that sixteen service attributes and motivations (reasons) for saving received different rates of importance by the both groups of savers. In other words, the group mean values for each of the sixteen characteristics are not equal. The t-value for the sixteen characteristics, as shown in table 9.6, indicated that
they are all significant at less than .01 significance level. Also, the t-values together with the group mean values (mean ratings) indicated that good savers attached more importance to all the sixteen variables than poor savers. Such a finding is expected since by dividing respondents according to their savings habits the group of good savers consisted of all 265 respondents who are "banked with savings accounts" plus a segment of respondents who are "non-banked" but view themselves as good savers. Perhaps because they are using other methods for savings, as will be explained later in this section, than holding savings accounts. On the other hand, the group of poor savers represented the remaining respondents who indicated that they are poor savers in both terms, neither holding savings accounts nor using other methods for saving.

As indicated in table 9.6, the variable (v3) "family is protected in emergencies" received the highest rate of importance by both groups. This finding confirmed that this motivation is considered by Iraqi consumers as a very important motivation for saving. Also, it confirmed the fact that most Iraqi savers seek keeping surplus money they can spare for future use, especially at the times of emergencies. This method of keeping money for future use is more common than any type of insurance in Iraq. Also, it gives consumers the flexibility to use the money they saved to face different types of emergencies rather than investing it in one type of insurance and facing emergency in other aspects of life in particular when consumers have little or some money to spare.

238
Table 9.6: The results of t-test to compare (good vs. poor savers)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Group mean rating</th>
<th>t value</th>
<th>2-tail prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>good savers</td>
<td>poor savers</td>
<td></td>
</tr>
<tr>
<td>v1 meet living expenses</td>
<td>1.73</td>
<td>2.09</td>
<td>-4.35</td>
</tr>
<tr>
<td>v3 family is protected in</td>
<td>1.34</td>
<td>1.61</td>
<td>-3.97</td>
</tr>
<tr>
<td>emergencies</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>v4 build-up a retirement fund</td>
<td>1.77</td>
<td>2.10</td>
<td>-3.86</td>
</tr>
<tr>
<td>v6 buying a property</td>
<td>1.89</td>
<td>2.35</td>
<td>-4.67</td>
</tr>
<tr>
<td>v11 feel own part of the</td>
<td>2.87</td>
<td>3.39</td>
<td>-4.61</td>
</tr>
<tr>
<td>bank</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>v14 use other services</td>
<td>2.89</td>
<td>3.23</td>
<td>-3.26</td>
</tr>
<tr>
<td>v15 higher interest</td>
<td>2.41</td>
<td>2.78</td>
<td>-3.52</td>
</tr>
<tr>
<td>v16 method to keep surplus</td>
<td>1.71</td>
<td>1.96</td>
<td>-3.14</td>
</tr>
<tr>
<td>money</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>v30 feel important as</td>
<td>2.27</td>
<td>2.65</td>
<td>-3.65</td>
</tr>
<tr>
<td>customer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>v42 availability of</td>
<td>1.96</td>
<td>2.42</td>
<td>-4.37</td>
</tr>
<tr>
<td>parking facility</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>v45 design of building</td>
<td>2.04</td>
<td>2.44</td>
<td>-4.07</td>
</tr>
<tr>
<td>v48 bank is well-known</td>
<td>2.05</td>
<td>2.36</td>
<td>-3.12</td>
</tr>
<tr>
<td>v52 AD on TV</td>
<td>2.06</td>
<td>2.40</td>
<td>-3.44</td>
</tr>
<tr>
<td>v56 personal contact by</td>
<td>2.44</td>
<td>2.86</td>
<td>-4.35</td>
</tr>
<tr>
<td>bank</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>v57 full-range of services</td>
<td>1.87</td>
<td>2.15</td>
<td>-3.49</td>
</tr>
<tr>
<td>v60 promotions</td>
<td>1.74</td>
<td>2.01</td>
<td>-3.03</td>
</tr>
</tbody>
</table>

Note: The ratings are based on a five-point scale, where 1= very important and 5= not important at all.

The group mean values for other variables, as presented in table 9.6, indicated that they received generally high rates of importance by the group of good savers. While the group of poor savers generally attached less or some importance to the same group.
of variables. The prime reason for that is the fact that good savers are actual savers not because they indicated that they are good savers, but because they are using savings accounts or other methods for saving. However, most good savers are holders of savings accounts therefore they have more positive attitudes towards the idea of saving in general and holding savings accounts at commercial banks in particular.

The results of the t-test shown in table 9.6 suggested that good savers and poor savers differ along sixteen characteristics. Thus, the group of good savers in comparison with the group of poor savers tended to give significantly higher importance to all the motivations and reasons for saving, such as "meeting living expenses", "family is protected in emergencies", "building-up a retirement fund" and "buying a property". Also, they tended to give significantly more importance to other savings accounts attributes, such as "higher interest rate" and "promotion". In addition, they attached more importance to other bank attributes, such as "full-range of services", "availability of parking facilities", and "bank is well-known".

In summary, the group of good savers in comparison with poor savers are more concerned about the benefits they are gaining from being good savers. Also, they are more concerned about the quality of the services they received from the bank and about some of the bank attributes which may influence their saving decision and selecting a particular bank to deal with.

Finally, the classification results of the previous section (section 9.2.1) indicated that out of the sample of 621 respondents, there were 265 respondents "banked with savings accounts" and 356 "non-banked". By using the same sample with using variable (v61) "I
as a good saver as the classification variable, i.e., good vs. poor savers, the classification results have changed. Thus, the results of the t-test indicated that out of the 621 respondents there were 403 respondents who indicated that they are good savers. That means, the actual savers, i.e., people who save surplus money for future use, are not only the 265 respondents who have savings accounts but another 138 respondents who save by other means. In other words, 403 respondents indicated that they are good savers while only 265 of them save through savings accounts. This indicates that the remaining 138 good savers are using other methods to hold their savings. If this is the case with a sample of 403 respondents, i.e., good savers, where only 68 per cent save through savings accounts while the remaining 32 per cent save through other methods, what about the entire population of Iraq? In other words, one can conclude that about 32 per cent of savers in Iraq are using other methods to hold their surplus money rather than depositing it at a bank. Such a conclusion is in fact the real situation in Iraq for a number of reasons: Firstly, there is a popular distrust of banks in Iraq and people are reluctant to deposit their money with them. Secondly, some people are illiterate and find it hard to deal with banks. They believe in cash in their hands and tend to keep it in secure places in their homes in the form of money, gold or jewelry. Thirdly, the banks in Iraq are largely to blame for this situation since they provide poor services in terms of quality, quantity and efficiency. For some consumers dealing with banks is a non-preferable activity. Iraqi banks, as described in chapter two, suffer from many problems which influence their performance and ability to serve consumers. Therefore, Iraqi consumers became reluctant to deal with banks. Fourthly, the interest rate paid by
banks is very low, in fact lower than the rate of inflation. Therefore, people are not willing to take the risk of depositing their money in a bank for a very low return. However, it should be mentioned here, following the above conclusions, that some savers perhaps defined themselves as good savers whilst the amount of money they save or they hold in the form of savings is not significant. They prefer to maintain their money under close control in a secure place of their choice rather than in a bank. They do not consider it worthwhile to deposit money in a bank given the difficulties mentioned above.

9.2.2.2 Respondents' Age Group

The t-test also used for comparing respondents according to their age groups: Group (A) respondents aged 44 years and under and Group (B) respondents aged 45 years and over. The results of the t-test, as shown in table 9.7, showed that younger and older respondents differ along four characteristics. Thus, the t-test confirmed that there were statistically significant differences between younger and older respondents in Iraq on certain characteristics. The group mean ratings together with the t-values confirmed that younger respondents attached significantly higher importance to three attributes. These are: "bank personnel are knowledgeable", "length of waiting time" and "location of branches".
Table 9.7: The results of t-test to compare respondents according to their age group

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean rating Group A</th>
<th>Mean rating Group B</th>
<th>t value</th>
<th>2-tail prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>v11 feel own part of the bank</td>
<td>3.15</td>
<td>2.86</td>
<td>2.48</td>
<td>.01</td>
</tr>
<tr>
<td>v21 bank personnel are knowledgeable</td>
<td>1.97</td>
<td>2.16</td>
<td>-2.26</td>
<td>.02</td>
</tr>
<tr>
<td>v32 length of waiting time</td>
<td>2.37</td>
<td>2.64</td>
<td>-2.44</td>
<td>.01</td>
</tr>
<tr>
<td>v41 location of branches</td>
<td>1.96</td>
<td>2.15</td>
<td>-2.22</td>
<td>.02</td>
</tr>
</tbody>
</table>

Notes:
1. The ratings are based on a five-point scale, where 1 = very important and 5 = not important at all.
2. Group A = respondents aged 44 years and under.
3. Group B = respondents aged 45 years and over.

These findings indicated that younger respondents are more concerned about aspects of convenience a bank can provide to them in terms of location and time. Also, they seemed to be more pleased in dealing with bank personnel who reflect good knowledge about the services on offer by the bank. Therefore, it can be concluded that younger respondents indicated that they view convenience in terms of time, location and people to deal with as the prime important requirements to feel satisfied with the bank.

Older respondents attached higher importance to feeling owning part of the bank than younger respondents. This difference can be interpreted as one of the characteristics of older people, in particular the oldest segment of this group. Thus, they are mostly retired people and they deposited their lifetime savings at the bank they are entitled to feel they are owning part of the bank bearing in mind that most of a bank's assets are its depositors' money.
9.2.2.3 Respondents' Family Size

When respondents were compared according to the size of their families the results of the t-test, as presented in table 9.8, indicated that they differ along five characteristics. Thus, the results indicated that respondents of group (B), i.e., family of six and over, attached significantly higher importance to the five characteristics shown in table 9.8 than respondents of group (A), i.e., family of five and under.

Table 9.8: The results of t-test to compare respondents according to their family size

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean rating</th>
<th>t value</th>
<th>2-tail prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Group A</td>
<td>Group B</td>
<td></td>
</tr>
<tr>
<td>v10 easily withdraw savings</td>
<td>2.25</td>
<td>2.04</td>
<td>2.10</td>
</tr>
<tr>
<td>v18 advice from family members</td>
<td>2.43</td>
<td>2.16</td>
<td>2.49</td>
</tr>
<tr>
<td>v35 accuracy of transactions</td>
<td>1.71</td>
<td>1.47</td>
<td>3.14</td>
</tr>
<tr>
<td>v36 confidentiality of transactions</td>
<td>1.87</td>
<td>1.58</td>
<td>3.38</td>
</tr>
<tr>
<td>v37 speed of processing transaction</td>
<td>1.97</td>
<td>1.76</td>
<td>2.52</td>
</tr>
</tbody>
</table>

Notes:
1. The ratings are based on a five-point scale, where 1 = very important and 5 = not important at all.
2. Group A = respondents their family size = 5 and under.
3. Group B = respondents their family size = 6 and over.

The mean ratings together with the t-values indicated that respondents of group (B) are more concerned about quality of transaction variables in particular accuracy and confidentiality of transactions. This finding indicated that respondents of larger families are very keen about their money, may be more so than the average person, but perhaps because this segment of people feel that they have heavier social responsibility towards the welfare of their...
large families. Also, respondents of larger families attached more importance to advice from a family member. The influence of the family on consumer behaviour in societies like the Iraqi society is very strong. However, it is even stronger in large families.

9.2.2.4 Respondents' Income Group

The test was used in this section in order to investigate the dissimilarities between respondents of two income groups in Iraq. Group (A) consisted of respondents their income group is 2999 I.D. and under, and Group (B) consisted of respondents their income group is 3000 I.D. and over. The results of the t-test, as presented in table 9.9, indicated that the two group differ along four characteristics.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean rating Group A</th>
<th>Mean rating Group B</th>
<th>t value</th>
<th>2-tail prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>v1 meet living expenses</td>
<td>1.77</td>
<td>1.96</td>
<td>-2.37</td>
<td>.01</td>
</tr>
<tr>
<td>v6 buying a property</td>
<td>1.95</td>
<td>2.19</td>
<td>-2.46</td>
<td>.01</td>
</tr>
<tr>
<td>v15 higher interest</td>
<td>2.39</td>
<td>2.74</td>
<td>-3.36</td>
<td>.00</td>
</tr>
<tr>
<td>v37 speed of processing transactions</td>
<td>1.87</td>
<td>1.72</td>
<td>2.03</td>
<td>.04</td>
</tr>
</tbody>
</table>

Notes:
1. The ratings are based on a five-point scale, where 1 = very important and 5 = not important at all.
2. Group A = respondents their income group = 2999 I.D. and under.
3. Group B = respondents their income group = 3000 I.D. and over.

Table 9.9 shows that respondents of lower income (group A) attached significantly higher importance to three variables. These
are "meeting living expenses", "Buying a property" and "higher interest". These findings indicated that respondents of lower income motivated to save and open a savings accounts by the desire to improve their standard of living and keeping some present financial assets to face future demands such as buying a property. Respondents of higher income attached less importance to these motivations for savings than their counter-group because their income is higher and they manage to deal with their future demands more easily than people with low income.

Higher interest on savings received a lower rate of importance by both groups among all other variables included in table 9.9. The obvious reason for that is the fact that the rate of interest paid by banks in Iraq is low and no match the rate of inflation. However, the group of lower income attached somewhat higher importance to higher interest on savings than the group of higher income.

The group of higher income attached significantly higher importance to one of the service attributes, i.e., speed of processing transactions. This finding indicated that this group are more frequent users for the services provided by banks than the group of lower income.

9.2.2.5 Respondents' Educational level

In this section an attempt was made to compare respondents according to their educational level. Thus, the aim was to investigate the influence of consumers' educational level on their preferences. The results of the t-test, as presented in table 9.10, suggested that respondents of lower and higher educational level differ along five characteristics.
Table 9.10: The results of t-test to compare respondents according to their educational level

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean rating Group A</th>
<th>Mean rating Group B</th>
<th>t value</th>
<th>2-tail prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>vi1 meet living expenses</td>
<td>1.74</td>
<td>2.05</td>
<td>-3.92</td>
<td>.00</td>
</tr>
<tr>
<td>vi2 start a new business</td>
<td>1.90</td>
<td>2.25</td>
<td>-3.90</td>
<td>.00</td>
</tr>
<tr>
<td>vi5 higher interest</td>
<td>2.43</td>
<td>2.70</td>
<td>-2.51</td>
<td>.01</td>
</tr>
<tr>
<td>vi7 advice from friend</td>
<td>2.60</td>
<td>2.85</td>
<td>-2.31</td>
<td>.02</td>
</tr>
<tr>
<td>vi8 advice from family members</td>
<td>2.10</td>
<td>2.42</td>
<td>-3.49</td>
<td>.00</td>
</tr>
</tbody>
</table>

Notes:
1. The ratings are based on a five-point scale, where 1 = very important and 5 = not important at all.
2. Group A = respondents their educational level = Secondary School and under.
3. Group B = respondents their educational level = University and over.

The t-values together with the mean ratings indicated that respondents of lower educational level, i.e., graduates of secondary school and under, attached higher importance to the five characteristics shown in table 9.10 than respondents of higher educational level, i.e., graduates of university and over. Thus, respondents of lower educational level attached more importance to variables, such as "starting a new business" which underlined the fact that most people with some or no formal education in Iraq tend to work in the private sector, in particular, establishing their own businesses. Also, since banks are reluctant to provide financial assistance to people starting a new business, especially small businesses, people learnt to depend on their savings to finance their new businesses.
In addition, people with low or no formal education in Iraq usually that segment of people with low income tend to give higher importance to aspects related to achieving some gains from saving such as "higher interest".

Finally, respondents of lower or no formal education indicated that they are more dependent on advice provided by friends and family members in making their decisions than respondents of higher educational level. This finding explains the fact that lack of education made people more dependent on others in making their decisions especially when it comes to matters of some complication such as banking.

9.3 Comparison with other Studies of Consumers' Saving Behaviour:

The results of eight prior studies related to the aspects of consumers' banking behaviour in general and consumers' saving behaviour in particular, which were discussed earlier in Chapter Three, may be compared to the present investigation's results.

Claycamp (1965) developed a model to compare between three groups of savers: (a) savers holding accounts at Commercial Banks; (b) savers holding accounts at Savings and Loan Associations; and (c) savers holding accounts in both of them. In other words, Claycamp, in his study, investigated the group of savers only and used only some motivations, socio-economic and psychological characteristics to investigate the differences between the three groups of savers. Thus, the study was limited to one segment of consumers, i.e., savers, and only a few related variables were used in the analysis, while consumers attitudes towards other related aspects to consumers saving decisions were neglected.
However, the present investigation confirmed the finding of Claycamp's study that psychological variables did prove to be as important in discriminating between consumers. In addition, the present study was an attempt to provide further understanding for consumers' saving behaviour by investigating the differences between consumers according to their: (a) saving decisions; (b) saving habits; (c) age; (d) income; (e) family size; and (f) educational level. Furthermore, the present study investigated the attitudes of savers, in particular, towards the variables related to their saving behaviour and the role of their socio-economic and demographic characteristics in influencing their saving decisions.

Claycamp concluded that only psychological variables were important as discriminating variables. The present study confirmed that and concluded in addition to it that consumers' saving behaviour can be affected by their attitudes, motivations, socio-economic, demographic and psychographic characteristics.

Allaire (1972) developed a model to determine the choice of financial organisations by consumers in which to open savings accounts. The findings of the present study confirmed the results of Allaire's study that convenience of location was given great importance by consumers as the prime reason for selecting a financial organisation to deal with. In addition to that, the present study confirmed that other aspects of bank-customer relationship, competition, savings accounts attributes and other facilities provided by the chosen financial institution were of importance in influencing savers decisions.

In his study Allaire concluded that the term convenience, which consists of convenience of location, logical place and convenient hours of operation, is perceived by consumers as of
significant importance. Thus, consumers' perception of a bank
depends largely on the convenience it provides to customers in terms
of time, place, services and other facilities.

Mason and Mayer (1974) attempted to determine the reasons for
maintaining savings accounts with Banks, Savings and Loan
Associations and Credit Unions. The results of the present study
confirmed the findings of Mason and Mayer, that is, that convenience
of location was evaluated by consumers as of significant importance
in influencing their decision to have a savings account with a
particular financial institution. In addition, the reputation of the
bank and its image were found, as is the case in Mason and Mayer's
study, of significant importance in influencing consumers' saving
decisions and was even more important than the rate of interest.

Furthermore, the present study and Mason and Mayer's study
confirmed that consumers want to achieve more than financial gains
by choosing a particular bank, they want convenience, good treatment
and respect.

Reynolds and Wells (1978) in their analysis of consumers life
style concluded that there are differences in the life style of
three groups of consumers: non-savers, infrequent savers and
frequent savers. However, the present study confirmed that there are
differences particularly between savers, i.e., banked with savings
accounts, and non-savers, i.e., non-banked, not only in terms of
their life style, but also in terms of their attitudes, motivations,
socio-economic, demographic and psychographic characteristics.

In addition, the Reynolds and Wells study was limited to male
respondents only, while the present study investigated both male and
female respondents' saving behaviour. Furthermore, the model
developed by Reynolds and Wells compared between respondents
according to their saving decisions only, while in this investigation respondents were compared according to other criteria, such as age, income, education and family size, as well as to their saving decisions and habits. In other words, the findings of this study provided more insight into consumers' saving behaviour in terms of the variables which may influence consumers' behaviour in addition to consumers' life style.

As is the case with other studies of consumers' saving behaviour which were carried out in the U.S.A, Arora, Cavusgil and Nevin (1985) examined a number of factors which are important in consumers' decisions to choose between Banks and Savings and Loan Associations.

In their study the authors concluded that Banks and Savings and Loan Associations share many similar characteristics in the eyes of consumers. However, their study did not investigate the differences between the customers of Banks and Savings and Loan Institutions. Also, it did not investigate the effect of consumers' socio-economic and demographic characteristics in their choice and behaviour.

However, the present study confirmed the findings of Arora, Cavusgil and Nevin's study that a number of common variables were of significant importance in influencing consumers' decisions to open a savings account with a particular financial institution, such as: convenience of location, full-range of services, friendliness of bank personnel etc.

With regard to a model of investigating a particular consumer segment's attitudes Goudge and Green (1986) investigated children and their parents' attitudes towards savings accounts in the U.K. In other words, Goudge and Green attempted to investigate the role of
the family in influencing their children's saving behaviour. In fact, they concluded, as is the case in the present study, that the family, and the parents in particular, have a great influence on their children's saving behaviour and decisions.

Langrehr (1986), as most researchers of consumers' saving behaviour in the U.S.A, attempted to investigate the competition between Banks and Savings and Loan Institutions in the U.S.A. Langrehr concluded that there were significant differences in consumers' evaluation of Banks and Savings and Loan Institutions in terms of the products (types of services) they provide. Thus, Langrehr findings concluded that Banks were evaluated as better than Savings and Loan Institutions by consumers.

However, the present study confirmed Langrehr's finding that Banks were in the top list of choices in the eyes of consumers mainly because banks provide a full-range of services which are not provided by other types of financial institutions.

The last consumer saving behaviour study which can be compared to the present investigation was conducted by Goodfelow (1987). Goodfelow attempted to gain insights into the basic motivations, attitudes and beliefs of savers. Goodfelow also attempted to investigate consumers' perceptions and attitudes towards savings and investments. The findings of Goodfelow's study revealed that at a superficial level the terms savings and investment were perceived to define different areas, but in-depth analysis confirmed that there was no meaningful differentiation between the two terms. Thus, both terms were perceived as terms for money which is not spent, but is tied up for future use.

However, the present study findings share with Goodfelow's findings that stage in life cycle, which contains a combination of
age, family status, education and perhaps occupation, can be identified as a significant factor in influencing attitudes and behaviour of consumers towards savings.

But, Goodfelow, in his investigation, reported the differences between saving and investing and the effect of the consumers' life cycle stage in formulating their financial behaviour only. In other words, Goodfelow's study was limited to one segment of consumers, i.e., savers, therefore, a sample of 25 savers only was used in his study. In fact, such a small sample size cannot be statistically representative for a large population such as savers. In addition, Goodfelow's study did not explain the interrelationship between factors affecting consumers' saving behaviour. Also, it did not extend the investigation to cover the differences between consumers' saving behaviour according to their, for example, saving decision, saving habits, income, age, educational level, occupation and family size.

Finally and generally speaking, the present investigation was an attempt to extend and develop the models of investigating consumers' banking behaviour in general and consumers' saving behaviour in particular. That was done through recruiting all the possible socio-economic, demographic, psychographic, motivational and attitudinal variables which may influence consumers' saving behaviour.

In addition, attempts were made in the present investigation in order to provide comparison, i.e., differences, between consumers' behaviour according to six major criteria, these were: (a) Consumers' saving decisions "banked with savings accounts" vs. "non-banked"; (b) Consumers' saving habits (good vs. poor savers); (c) Consumers' age groups; (d) Consumers' family size groups; (e)
Consumers' family income group; and (f) Consumers' educational level.

Also, the relationships between consumers' saving decisions, i.e., to be "banked with savings accounts" or "non-banked", and their socio-economic and demographic characteristics were investigated. In other words, the present investigation attempted to provide an overlook to the most important variables which may influence consumers' saving decisions and behaviour.

9.4 Conclusions:

In this chapter the attempts were made to discriminate between consumers' attitudes towards having a savings account at a commercial bank and their saving behaviour according to six criteria (dimensions), as follows:

Firstly, Discriminant Analysis and T-Test were used in order to achieve the stated objective of this investigation. Thus, the findings of the DA and T-Test confirmed that there were dissimilarities in consumers ratings for the importance of the variables related to the idea of saving and the service of savings accounts provided by commercial banks in Iraq, if they are compared according to their saving decisions, savings habits, age, income, education and family size.

Secondly, the methods and findings of the present investigation confirmed most of the findings of previous investigations of consumers' saving behaviour and attitudes towards saving and the related variables. The present study in comparison with previous studies was more comprehensive not in terms of sample size and statistical techniques of analysis used, but in terms of its attempts to investigate the problem of consumers' saving.
behaviour through all its possible dimensions. In other words, all the relevant consumers' socio-economic and demographic characteristics to consumers' saving behaviour were used in order to investigate the differences between different groups of consumers.
CHAPTER TEN

MULTIPLE CLASSIFICATION ANALYSIS FINDINGS

10.1 INTRODUCTION.

10.2 MULTIPLE CLASSIFICATION ANALYSIS FINDINGS FOR:
   10.2.1 CONSUMERS' SOCIO-ECONOMIC CHARACTERISTICS.
   10.2.2 CONSUMERS' DEMOGRAPHIC CHARACTERISTICS.

10.3 TESTING RESEARCH HYPOTHESES.

10.4 CONCLUSIONS.
10.1 Introduction:

The main objective of this chapter is to examine the relationship between consumers' saving behaviour (decisions), i.e., their decision to hold or not to hold a savings account, and their profile characteristics.

The term "profile characteristics" is used to mean selective socio-economic characteristics, such as income level, educational level, and occupation; and demographic characteristics, such as sex of respondent, marital status, age, and family size. Such profile characteristics were used in this investigation, because, it was thought to be the most related characteristics in influencing consumers' saving behaviour (decisions) in Iraq.

However, in order to achieve this objective a computer program titled Multiple Classification Analysis (MCA) was used for the purpose of data analysis. The MCA statistical technique is one of the dependent methods of multivariate data analysis. Thus, in this investigation the purpose was to examine the relationship between the single dependent variable (p1), i.e., hold / or not hold a savings account, and a number of independent categorical variables (predictors). The variable (p1) represents consumers' saving decisions to hold or not to hold a savings account. In other words, the main objectives for using the MCA statistical technique in this study are the following:

(a) To determine the ability of all predictors (independent variables) in explaining the proportion of variance in the dependent variable (bank customers' saving decisions);

(b) To measure the ability of a predictor variable in explaining variation in the dependent variable (bank
customers' saving decisions) after adjusting for the
effects of all other predictor
variables; and
(c) To determine whether a predictor variable has a
significant portion (effect) in explaining the variation of
the dependent variable (bank customers' saving decisions to
hold or not hold a savings account at a commercial bank).

The MCA computer program has no constraint on the type of
data (i.e., in terms of data measurement). Thus, the predictors are
treated as sets of categories whatever their measurement type, i.e.,
nominal, ordinal, interval, or ratio. The MCA computer program
output consists of the grand mean of the dependent variable, and a
table of category means for each predictor variable expressed as a
deviations from the grand mean. Also, the MCA output contains the
following statistics:

1. The Eta statistic: This is the correlation ratio, and
represents the ability of the predictor variable to explain the
variation in the dependent variable. Eta statistic is similar to
Beta statistic but it is based on the unadjusted mean rather than on
the adjusted mean. However, the Eta statistic is very useful for the
purpose of calculating the value of F-test for each predictor. Thus,
the Eta statistic is useful in calculating the sum of squares, which
is based on the unadjusted deviation for each predictor. This sum of
squares is essential in calculating the value of F-test. In other
words, it is essential for the purpose of testing the research
hypotheses for all predictors taken together, and each predictor
taken separately.

2. The Beta statistic: This statistic indicates the ability of the
predictor, i.e., the independent variable, in explaining the
variation in the dependent variable, after adjusting for the effect of all other predictors.

3. The Multiple Coefficient of Determination ($R^2$): This coefficient indicates the ability of all predictors taken together in explaining the variation in the dependent variable.

4. The F-ratio: This ratio allows to test the significance of a predictor variable in explaining the proportion of variance in the dependent variable. However, the F-ratio is not the F-test, thus, the MCA output does not calculate the F-test. As mentioned in item one above, the required statistics for the purpose of calculating the F-test are part of the MCA output, such as: the sum of squares for each predictor, and the total sum of squares for all predictors taken together.

Based on the above assumptions, and in order to achieve the stated objective from applying the MCA technique, the categorical data gathered from 621 respondents were analysed. In the following section an interpretation for MCA results is provided:

10.2 Multiple Classification Analysis Findings: Consumers' Profile Characteristics:

As mentioned earlier, the main objective of this chapter was to examine the effects of consumers' profile characteristics in influencing consumers' saving behaviour (or their decisions to open or not to open savings accounts at a commercial bank). Therefore, the MCA computer programme output, as one of the dependent method, provides the required statistical results to achieve this objective.

However, table 10.1 describes the main results of the MCA computer program, which consist of the grand mean for the dependent variable, the class mean for each category in each predictor
variable, the Beta statistic for each predictor, and the F-ratio for each predictor.

Table 10.1 shows that the coefficient of determination ($R^2$) is equal to .30 for all predictor variables taken together. This statistic suggests that the seven consumers' profile characteristics contributed in explaining 30 per cent of the variation in consumers' saving behaviour, i.e., the dependent variable ($p_1$) (hold / not hold a savings account). While, 70 per cent of the variation in variable ($p_1$) remained unaccounted for by the seven consumers' profile characteristics. By referring to the findings of chapters eight and nine of this study, which investigated consumers' attitudes towards the service of savings accounts, the remaining unexplained 70 per cent of the variation in variable ($p_1$) can be explained by the 65 attitudinal variables used to discriminate between respondents according to their saving decisions. Thus, the variation in variable ($p_1$), i.e., consumers saving decisions, can be influenced by two sets of variables. These are consumers attitudes towards the service of savings accounts and their profile characteristics. In chapters eight and nine the influence of consumers' attitudes on their saving decisions was investigated and reported. In this chapter, and in order to complete the investigation, the influence of consumers' socio-economic and demographic characteristics is to be analysed.

By comparing the contribution of this research consumers' profile characteristics in explaining the variation in the dependent variable with other attempts using the same statistical technique and type of categorical data it can be concluded that 30 per cent is not bad (see for example, Anderson and Nevin, 1975).

One of the aims of this analysis was to determine the ability of all predictors (independent variables) taken together in

260
explaining the proportion of variance in the dependent variable (consumers' saving decisions). This can be achieved, in addition to maximising the value of \( R^2 \), by examining the overall value of F-ratio and its significance for the independent variables. Thus, because the F-ratio is an indicator for the significance of the independent variables in explaining the variation in the dependent variable (consumers' saving decisions).

Table 10.1: The (MCA) Output for the Relationship Between Consumers' Saving Behaviour and Consumers' Profile Characteristics.

<table>
<thead>
<tr>
<th>No</th>
<th>Variable Categories</th>
<th>N</th>
<th>Z</th>
<th>Class Mean</th>
<th>Beta</th>
<th>F-Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>x1</td>
<td>Sex:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>504</td>
<td>81</td>
<td>.59</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>117</td>
<td>19</td>
<td>.51</td>
<td></td>
<td></td>
</tr>
<tr>
<td>x2</td>
<td>Marital Status:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Married</td>
<td>535</td>
<td>86</td>
<td>.55</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Single</td>
<td>86</td>
<td>14</td>
<td>.71</td>
<td></td>
<td></td>
</tr>
<tr>
<td>x3</td>
<td>Age Group:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>24 years and under</td>
<td>72</td>
<td>12</td>
<td>.81</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>25-44 years</td>
<td>335</td>
<td>54</td>
<td>.55</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>45-64 years</td>
<td>165</td>
<td>26</td>
<td>.46</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>65 years and over</td>
<td>49</td>
<td>8</td>
<td>.76</td>
<td></td>
<td></td>
</tr>
<tr>
<td>x4</td>
<td>Family Size Group:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Single</td>
<td>87</td>
<td>14</td>
<td>.71</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Couple without child</td>
<td>51</td>
<td>8</td>
<td>.53</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Couple with three children and under</td>
<td>214</td>
<td>35</td>
<td>.49</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Couple with four children and over</td>
<td>269</td>
<td>43</td>
<td>.61</td>
<td></td>
<td></td>
</tr>
<tr>
<td>x5</td>
<td>Family Income Group:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Under 2000 I.D.</td>
<td>203</td>
<td>33</td>
<td>.71</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2000-2999 I.D.</td>
<td>156</td>
<td>25</td>
<td>.74</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3000-3999 I.D.</td>
<td>138</td>
<td>22</td>
<td>.41</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4000 I.D. and over</td>
<td>124</td>
<td>20</td>
<td>.31</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

261
Table 10.1 (Continued)

<table>
<thead>
<tr>
<th>No</th>
<th>Variable Categories</th>
<th>N</th>
<th>%</th>
<th>Class Mean</th>
<th>Beta</th>
<th>F-Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>x6</td>
<td>Household Educational Level:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Less than secondary school.</td>
<td>242</td>
<td>39</td>
<td>.70</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Secondary school graduate.</td>
<td>140</td>
<td>23</td>
<td>.53</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>University graduate.</td>
<td>198</td>
<td>32</td>
<td>.49</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Higher education graduate (Msc, Ph.D.).</td>
<td>41</td>
<td>6</td>
<td>.38</td>
<td></td>
<td></td>
</tr>
<tr>
<td>x7</td>
<td>Household Occupation:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>General manager and higher positions.</td>
<td>25</td>
<td>4</td>
<td>.20</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Manager</td>
<td>49</td>
<td>8</td>
<td>.29</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Teacher</td>
<td>55</td>
<td>9</td>
<td>.52</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Clerk</td>
<td>150</td>
<td>24</td>
<td>.72</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Farmer</td>
<td>49</td>
<td>8</td>
<td>.82</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Labourer</td>
<td>89</td>
<td>14</td>
<td>.89</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pensioner</td>
<td>63</td>
<td>10</td>
<td>.63</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Owner of private business</td>
<td>94</td>
<td>15</td>
<td>.17</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Housewife</td>
<td>23</td>
<td>4</td>
<td>.52</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Student</td>
<td>24</td>
<td>4</td>
<td>.54</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total population = 621 (265 "banked with savings accounts" and 356 "non-banked").

Grand mean = .57

Coefficient of determination \( (R) = .30 \)

Explained sum of squares = 46.473 has F-ratio = 11.440 which has significance level = .000

Residual sum of squares = 105.444

Total sum of squares = 151.916

a = significant at less than .01 significance level

b = not significant
As shown in table 10.1, the overall value of F-ratio for all independent variables taken together is equal to (11.440), which is significant at (.000) significance level. This finding suggests that consumers' socio-economic and demographic characteristics explain the variation in the dependent variable (pi), i.e., consumers' saving decisions. In other words, the seven socio-economic and demographic variables, taken together, are explaining why some consumers decide to be savers, i.e., banked with savings accounts, and others non-savers, i.e., non-banked.

After achieving that, the second aim of this analysis was to measure the ability of each predictor variable in explaining the variation in the dependent variable, i.e., consumers' saving decisions, after adjusting for the effects of all other predictor variables. In other words, the aim was to identify the ability of each predictor in explaining, why consumers take their decisions either to be savers (banked with savings accounts) or non-savers (non-banked).

The third aim was to determine whether a predictor variable has a significant portion (effect) in explaining the variation in the dependent variable, i.e., consumers' saving decisions. In other words, the aim was to measure the significance of each predictor in explaining why some consumers decided to be savers and others not.

In order to achieve the last two above mentioned aims, the MCA output provided two types of statistics (Beta and F-ratio), which can best describe the ability of each predictor in doing this. These statistics are shown in table 10.1 and will be discussed for each predictor separately in the following sections of this chapter.
In addition to that, table 10.2 provides descriptive statistics for each predictor variable, which help to provide more insights in demonstrating the importance of each predictor in explaining consumers' saving decisions. Table 10.2 consists of a number of descriptive statistics. The first column is the variable code. The second column is the variable name and the categories it contains. The third column \((N)\) represents the number of respondents represented in each category of each predictor. Thus, the total sample was 621 respondents, and each predictor consists of a number of categories. For example, the predictor sex of respondents consists of two categories: Male and Female. Therefore, the total sample of 621 respondents consists of 504 males, and 117 females, and so on for other predictors while the remaining four columns represent the number of savers and non-savers and their percentage for each predictor in terms of the categories it consists of.
Table 10.2: Rate of Occurrence of the Consumers' Profile Characteristics for All and Each Group of Respondents.

<table>
<thead>
<tr>
<th>No</th>
<th>Variable Categories</th>
<th>N</th>
<th>Banked</th>
<th>%</th>
<th>Non-banked</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>x1</td>
<td>Sex:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>504</td>
<td>208</td>
<td>41</td>
<td>296</td>
<td>59</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>117</td>
<td>57</td>
<td>49</td>
<td>60</td>
<td>51</td>
</tr>
<tr>
<td>x2</td>
<td>Marital Status:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Married</td>
<td>535</td>
<td>240</td>
<td>45</td>
<td>295</td>
<td>55</td>
</tr>
<tr>
<td></td>
<td>Single</td>
<td>86</td>
<td>25</td>
<td>29</td>
<td>61</td>
<td>71</td>
</tr>
<tr>
<td>x3</td>
<td>Age Group:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>24 years and under</td>
<td>72</td>
<td>14</td>
<td>19</td>
<td>58</td>
<td>81</td>
</tr>
<tr>
<td></td>
<td>25 - 44 years</td>
<td>335</td>
<td>150</td>
<td>45</td>
<td>185</td>
<td>55</td>
</tr>
<tr>
<td></td>
<td>45 - 64 years</td>
<td>165</td>
<td>89</td>
<td>54</td>
<td>76</td>
<td>46</td>
</tr>
<tr>
<td></td>
<td>65 years and over</td>
<td>49</td>
<td>12</td>
<td>24</td>
<td>37</td>
<td>76</td>
</tr>
<tr>
<td>x4</td>
<td>Family Size Group:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Single</td>
<td>87</td>
<td>25</td>
<td>29</td>
<td>62</td>
<td>71</td>
</tr>
<tr>
<td></td>
<td>Couple without child</td>
<td>51</td>
<td>24</td>
<td>47</td>
<td>27</td>
<td>53</td>
</tr>
<tr>
<td></td>
<td>Couple with three children</td>
<td>214</td>
<td>110</td>
<td>51</td>
<td>104</td>
<td>49</td>
</tr>
<tr>
<td></td>
<td>and under</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Couple with four and over</td>
<td>269</td>
<td>106</td>
<td>39</td>
<td>163</td>
<td>61</td>
</tr>
<tr>
<td>x5</td>
<td>Family Income Group:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Under 2000 I.D.</td>
<td>203</td>
<td>58</td>
<td>29</td>
<td>145</td>
<td>71</td>
</tr>
<tr>
<td></td>
<td>2000 - 2999 I.D.</td>
<td>156</td>
<td>40</td>
<td>26</td>
<td>116</td>
<td>74</td>
</tr>
<tr>
<td></td>
<td>3000 - 3999 I.D.</td>
<td>138</td>
<td>81</td>
<td>59</td>
<td>57</td>
<td>41</td>
</tr>
<tr>
<td></td>
<td>4000 I.D. and over</td>
<td>124</td>
<td>86</td>
<td>69</td>
<td>38</td>
<td>31</td>
</tr>
<tr>
<td>No.</td>
<td>Variable Categories</td>
<td>N</td>
<td>Banked</td>
<td>%</td>
<td>Non-banked</td>
<td>%</td>
</tr>
<tr>
<td>-----</td>
<td>----------------------------------</td>
<td>----</td>
<td>--------</td>
<td>-----</td>
<td>------------</td>
<td>-----</td>
</tr>
<tr>
<td>x6</td>
<td>Household Educational Level:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Less than secondary School.</td>
<td>242</td>
<td>72</td>
<td>30</td>
<td>170</td>
<td>70</td>
</tr>
<tr>
<td></td>
<td>Secondary school graduate.</td>
<td>140</td>
<td>66</td>
<td>47</td>
<td>74</td>
<td>53</td>
</tr>
<tr>
<td></td>
<td>University graduate.</td>
<td>198</td>
<td>101</td>
<td>51</td>
<td>97</td>
<td>49</td>
</tr>
<tr>
<td></td>
<td>Higher education (Msc., Ph.D.).</td>
<td>41</td>
<td>26</td>
<td>63</td>
<td>15</td>
<td>37</td>
</tr>
<tr>
<td>x7</td>
<td>Household Occupation:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>General manager and higher positions.</td>
<td>25</td>
<td>20</td>
<td>80</td>
<td>5</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Manager</td>
<td>49</td>
<td>35</td>
<td>71</td>
<td>14</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>Teacher</td>
<td>55</td>
<td>26</td>
<td>48</td>
<td>29</td>
<td>52</td>
</tr>
<tr>
<td></td>
<td>Clerk</td>
<td>150</td>
<td>42</td>
<td>28</td>
<td>108</td>
<td>72</td>
</tr>
<tr>
<td></td>
<td>Farmer</td>
<td>49</td>
<td>9</td>
<td>18</td>
<td>40</td>
<td>82</td>
</tr>
<tr>
<td></td>
<td>Labourer</td>
<td>89</td>
<td>10</td>
<td>11</td>
<td>79</td>
<td>89</td>
</tr>
<tr>
<td></td>
<td>Pensioner</td>
<td>63</td>
<td>23</td>
<td>37</td>
<td>40</td>
<td>63</td>
</tr>
<tr>
<td></td>
<td>Owner of private business.</td>
<td>94</td>
<td>78</td>
<td>83</td>
<td>16</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>Housewife</td>
<td>23</td>
<td>11</td>
<td>48</td>
<td>12</td>
<td>52</td>
</tr>
<tr>
<td></td>
<td>Student</td>
<td>24</td>
<td>11</td>
<td>46</td>
<td>13</td>
<td>54</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>621</td>
<td>265</td>
<td>43</td>
<td>356</td>
<td>57</td>
</tr>
</tbody>
</table>
10.2.1 Consumers' Demographic Characteristics:

Four demographic predictors were used in this analysis, and they are: Sex of respondent, Marital Status of respondent, Age Group of respondent, and Family Size Group of respondent.

**Predictor xl: Sex of respondent:**

The findings of the MCA shown in table 10.1 indicated that sex of respondents has a Beta statistic of .09 and a F-ratio of 2.982. By comparing the Beta value and the F-ratio of this variable with the values of other independent variables, as shown in table 10.1, it can be concluded that sex of respondents found to be the variable of the lowest ability to explain the variation in the dependent variable. In other words, sex of respondents does not explain why Iraqi consumers decide to be "banked with savings accounts" and others not.

In addition, table 10.2 and figure 10.1 show that out of the 621 respondents, 504 are males, 208 or 41% of them are "banked with savings accounts", and 269 or 59% are "non-banked". While, out of the 621 respondents, 117 are females, 57 or 49% of them are "banked with savings accounts", and 60 or 51% are "non-banked". This numerical comparison indicated that males are marginally likely to be "non-banked" rather than "banked with savings accounts". With regard to females respondents the results indicate that females can be banked or non-banked since the difference between banked females and those non-banked is very small (only 2%). Therefore, it can be concluded that the sex of respondents (in this case of study) is of no significant importance in explaining the variation between consumers' decisions to hold or not to hold a savings account.
FIGURE 10.1: SEX OF RESPONDENTS

SEX

SAVERS

NON-SAVERS
Predictor x2: Marital Status of respondents:

Table 10.1 shows that marital status of respondents has a Beta statistic of .37, which is the second highest value. This means that the marital status of respondents has the ability to explain the variation in the dependent variable (i.e., hold / not hold a savings account).

Furthermore, table 10.1 indicates that the marital status of respondents has a F-ratio of 13.351, which is significant at less than .01 significance level. This means that the predictor "marital status of respondents" has a significant portion (effect) in explaining the variation in the dependent variable (i.e., hold / not hold a savings account).

In addition, table 10.2 and figure 10.2 show that out of the 621 respondents, 535 are married, 240 or 45% of them are "banked with savings accounts" and 295 or 55% are "non-banked". While, out of the 621 respondents, 86 are single, 25 or 29% of them are "banked with savings accounts" and 61 or 71% are "non-banked". This numerical finding concluded that married people are likely to be "non-banked" rather than "banked with savings accounts", by a 10 percent of the total sample. On the other hand, single people are more likely to be "non-banked" rather than "banked with savings accounts". This is mainly because single people represent the young, earning less, and are not so concerned about their financial situation because they do not have dependents.
FIGURE 10.2: MARITAL STATUS OF RESPONDENTS.
Predictor x3: Age Group of respondents:

Table 10.1 indicates that age group of respondents has a Beta statistic of .24. This means that age group of respondents has the fourth rank in terms of its ability to explain the variation in the dependent variable (i.e., hold / not hold a savings account).

Furthermore, table 10.1 shows that age group of respondents has a F-ratio of 11.388, which is significant at less than .01 significance level. This means that, the predictor "age of respondents" has a significant effect in explaining the variation in the dependent variable (i.e., hold / not hold a savings account).

In addition, table 10.2 and figure 10.3 show that, at the age of 24 years and under the percentage of "banked with savings accounts" 19% is lower than the percentage of "non-banked" 81%. At the age 25-44 years the percentage of "banked with savings accounts" 45% is still lower than "non-banked" 55%, but, the difference is smaller (only 10%). At later age stages the pattern is changed, so at age 45-64 years the percentage of "banked with savings accounts" 54% is higher than "non-banked" 46%, but still the difference is small 8%. While, at late age stages (i.e., age group 65 and over), the pattern returns to the situation where the percentage of "banked with savings accounts" 24% is lower than "non-banked" 76%.

This concludes that the percentage of "banked with savings accounts" is mainly high between the middle age groups (i.e., 25-64 years old) which represents the main earning period in most peoples' life cycle. While, the percentage of "non-banked" is higher in early and late life stages (i.e., 24 years and under, and 65 years and over). This is because, at early age stages most persons are in their early life cycle such as students or in early employment. Which means they have less income and are less likely to be "banked with savings accounts". On the other hand, the older groups are mainly retired people living on pensions or savings. These conclusions may help bank marketing management to target the most important age segment of consumers of banking services in Iraq, i.e., the group of consumers aged between 25 to 64 years.
FIGURE 10.3: AGE GROUP OF RESPONDENTS

<table>
<thead>
<tr>
<th>AGE GROUP</th>
<th>SAVERS</th>
<th>NON-SAVERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>24-UNDER</td>
<td>80</td>
<td>20</td>
</tr>
<tr>
<td>25-44</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>45-64</td>
<td>80</td>
<td>20</td>
</tr>
<tr>
<td>65-OVER</td>
<td>20</td>
<td>80</td>
</tr>
</tbody>
</table>

%
Predictor x4: Family Size Group:

Table 10.1 indicates that family size group of respondents has a Beta statistic of .36. This means that, this predictor has the third rank in terms of its ability to explain the variation in the dependent variable (hold / not hold a savings account).

Furthermore, table 10.1 shows that family size group of respondents has a F-ratio value of 4.579, which is significant at less than .01 significance level. This means that this predictor has a significant portion (effect) in explaining the variation in the dependent variable (i.e., hold / not hold a savings account).

In addition, table 10.2 and figure 10.4 explain that the percentage of "banked with savings accounts" 29% between single people (i.e., people have no dependents at least financially) is lower than the percentage of "non-banked" 71%. The percentage of "banked with savings accounts" between couple without children is increased to 47%, while, the percentage of "non-banked" is decreased to 53% but still the percentage of "banked with savings accounts" is relatively lower than the percentage of "non-banked".

However, for the family size group of a couple with three children and under, the percentage of "banked with savings accounts" 51% and "non-banked" 49%, are about equal (only 2% difference). While, for families consisting of a couple with four children and over, the percentage of "banked with savings accounts" 39% is lower than "non-banked" 61%.

Thus, in the case of single persons (no dependents), as previously mentioned, this group mainly consists of young single people, earning less, and less concerned about their future financial status because they do not have dependents.
However, by having children the results, as indicated in table 10.2 and figure 10.4, showed that the more the number of children a family have, the less the chance to be able to save. Thus, the percentage of "banked with savings accounts" decreases when the family size increases. Table 10.2 shows conclusively that the more children there are in a family, the less likely is the opportunity for the household to have a savings account.

10.2.2: Consumers' Socio-economic Characteristics:

Three socio-economic predictors were used in the analysis, and they are the following:

 Predictor x5: Family Income Group:

Table 10.1 shows that the predictor family income group has a Beta statistic of .13. This means that it ranks fifth in terms of its ability in explaining the variation in the dependent variable (i.e., hold / not hold a savings account).

In addition, table 10.1 indicates that this predictor has a F-ratio of 29.315, which is significant at less than .01 significance level. In other words, the predictor family income group has a significant portion (effect) in explaining the variation in the dependent variable, i.e., hold / not hold a savings account.

Table 10.2 and figure 10.5 show that the percentage of "banked with savings accounts" 29% for the first group income (under 2000 I.D.) is lower than the percentage of "non-banked" 71%. The same conclusion can be made about the second income group (2000 - 2999 I.D.), i.e., 26% "banked with savings accounts" and 74% "non-banked".
FIGURE 10.4: FAMILY SIZE GROUP OF RESPONDENTS
FIGURE 10.5: INCOME GROUP OF RESPONDENTS

INCOME

- SAVERS
- NON-SAVERS
In the case of the third income group (3000 - 3999 I.D.) the percentage of "banked with savings accounts" 59% is higher than the percentage of "non-banked" 41%. While, for the fourth income group (4000 I.D. and over) the percentage of "banked with savings accounts" 69% is far higher than the percentage of "non-banked" 31%. Figure 10.5 shows the changes in the percentage of "banked with savings accounts" and "non-banked" according to their income group.

However, the above results indicated that the higher the family income the more likely they are to have a savings account. On the other hand, the lower the family income the less chance they have a savings account.

**Predictor x6: Household Head's Educational Level:**

Table 10.1 shows that the predictor household educational level has a Beta statistic of .11 which ranks as sixth in terms of its ability in explaining the variation in the dependent variable (i.e., hold / not hold a savings account).

Also, table 10.1 shows that this predictor has a F-ratio of 5.578 which is significant at less than .01 significance level. Thus, to say that the predictor household educational level has a significant portion (effect) in explaining the variation in the dependent variable.

In addition, table 10.2 and figure 10.6 show that people of higher education are more likely to be "banked with savings accounts", and people with less education are likely to be "non-banked". For example, in the case of people with less than secondary school education 30% are "banked with savings accounts" and 70% are "non-banked". In the case of people with secondary school education, the percentage of "banked with savings accounts" increased to 47%, while, the percentage of "non-banked" decreased to 53%.

In the case of people with university education the percentage of "banked with savings accounts" increased to 51%,
while, the percentage of "non-banked" decreased to 49%. Finally, in the case of people with higher education (M.Sc. and Ph.D) the percentage of "banked with savings accounts" increased further to 63%, while, the percentage of "non-banked" decreased to 37%.

**Predictor x7: Household Head's Occupation:**

Table 10.1 shows that this predictor is the predictor of the highest Beta statistic value .41. Which means, it is the predictor variable of the highest ability in explaining the variation in the dependent variable (i.e., hold / not hold a savings account).

Also, table 10.1 indicates that the predictor household head's occupation has a F-ratio of 10.467, which is significant at less than .01 significance level. In other words, it has a significant portion (effect) in explaining the variation in the dependent variable, i.e., hold / not hold a savings account.

In addition, table 10.2 and figure 10.7 explain that people with better jobs are more likely to be "banked with savings accounts" than people with poor jobs or no jobs at all. For example, 83% of the owners of private business are "banked with savings accounts", while only 11% of labourers are "banked with savings accounts". And, 80% of general managers and people in higher positions are "banked with savings accounts", while, only 28% of people in lower clerical jobs are "banked with savings accounts".

On the other hand, the differences between the percentage of "banked with savings accounts" and "non-banked" in case of other jobs are relatively marginal. For example, 48% of housewives are "banked with savings accounts", and 52% are "non-banked". And, 46% of students are "banked with savings accounts", and 54% are "non-banked". And, the same thing applies in the case of teachers 48% are "banked with savings accounts" and 52% are "non-banked".
FIGURE 10.6: EDUCATIONAL LEVEL OF RESPONDENTS

EDUCATIONAL LEVEL

SAVERS  NON-SAVERS
FIGURE 10.7: OCCUPATIONS OF RESPONDENTS

OCCUPATIONS OF SAVERS

OCCUPATIONS OF NON-SAVERS
10.3 Testing Research Hypothesis:

In this chapter the below mentioned research hypothesis, as stated in its null form, is to be tested by using the parametric F-test. The idea was to underline the significance of all independent variables taken together, which consists of consumers' profile characteristics, i.e., socio-economic and demographic, in explaining the variation in the dependent variable, i.e., hold / not hold a savings account. After achieving that, the next stage was to test the significance of each predictor (independent variable) used in the analysis in explaining the variation in the dependent variable, i.e., hold / not hold a savings account.

Hypothesis HO: Consumers' profile characteristics, i.e., the seven socio-economic and demographic variable taken together or separately, have no significant influence on consumers' saving decisions (hold / not hold a savings account) in Iraq.

1. Testing the significance of all predictors variables taken together.

In order to test the significance of the seven predictors variables taken together in explaining the variation in consumers' saving decisions the value of F-test was calculated as follows:

\[
\frac{46.473}{(30 - 7)} \div \frac{105.444}{(621 - 30 + 7 - 1)} = 11.439
\]

Tabulated F-value (23,597) = 1.84 at p = .01 significance level. Thus, the calculated F-value exceeds the tabulated F-value, i.e., it is significant at p = less than .01. Therefore, the null hypothesis
is rejected in favour of the alternative hypothesis, that is consumers' profile characteristics have a significant effect in explaining the variation in consumers' saving decisions (hold / not hold a savings account). Thus, the seven socio-economic and demographic characteristics of consumers can influence their saving decisions.

2. Testing the significance of each predictor variable taken separately.

In order to test the significance of each predictor variable in explaining the variation in consumers' saving decisions the value of F-test was calculated for each predictor variable as follows:

**Sex of Respondents**

The calculated value of F-test for the predictor variable "sex of respondents" is equal to:

\[
F = \frac{.6228 / (2 - 1)}{151.916 - .6228 / (621 - 2)}
\]

\[
F (1,619) = 2.548
\]

Tabulated F-value (1,619) = 3.84 at \( p = .05 \) significance level. Thus, the tabulated F-value exceeds the calculated F-value, i.e., it is not significant at all. Therefore, the null hypothesis is accepted, i.e., sex of respondents has no significant effect in explaining the variation in consumers' saving decisions (hold / not hold a savings account). Thus, respondents' sex is not of significant importance in explaining why some respondents in Iraq decide to be savers and others not.

**Marital Status of Respondents**

The calculated value of F-test for the predictor variable "marital status of respondents" is equal to:
1.8996 / (2 - 1)

\[ F = \frac{151.916 - 1.8996}{(621 - 2)} \]

\[ F (1,619) = 7.838 \]

Tabulated F-value (1,619) = 6.63 at p = .01 significance level. Thus, the calculated F-value exceeds the tabulated F-value, i.e., it is significant at p = less than .01 significance level. Therefore, the null hypothesis is rejected in favour of the hypothesis that marital status of respondents has a significant effect in explaining the variation in consumers' saving decisions. This finding indicates that marital status of respondents in Iraq can influence their saving decisions.

**Age Group of Respondents**

The calculated value of F-test for the predictor variable "age group of respondents" is equal to:

\[ 8.0466 / (4 - 1) \]

\[ F = \frac{151.916 - 8.0466}{(621 - 4)} \]

\[ F (3,617) = 11.503 \]

Tabulated F (3,617) = 3.78 at p = .01 significance level. Thus, the calculated F-value exceeds the tabulated F-value, i.e., it is significant at p = less than .01 significance level. Therefore, the null hypothesis is rejected in favour of the hypothesis that age group of respondents has a significant effect in explaining the variation in consumers' saving decisions, i.e., it can explain why some respondents decide to be savers and others not.

**Family Size of Respondents**

The calculated value of F-test for the predictor variable "family size of respondents" is equal to:
\[
\frac{3.5868}{(4 - 1)} = \frac{151.916 - 3.5868}{(621 - 4)} = \frac{151.916 - 20.4024}{(621 - 4)}
\]

Tabulated \( F(3,617) = 3.78 \) at \( p = .01 \) significance level. Thus, the calculated \( F \)-value exceeds the tabulated \( F \)-value, i.e., it is significant at \( p = \) less than .01 significance level. Therefore, the null hypothesis is rejected in favour of the hypothesis that, family size group of respondents has a significant effect in explaining the variation in consumers' saving decisions. In other words, the size of the family can determine respondents saving decisions in Iraq.

**Income Group of Respondents**

The calculated value of \( F \)-test for the predictor variable "income group of respondents" is equal to:

\[
\frac{20.4024}{(4 - 1)} = \frac{151.916 - 20.4024}{(621 - 4)}
\]

Tabulated \( F(3,617) = 3.78 \) at \( p = .01 \) significance level. Thus, the calculated \( F \)-value exceeds the tabulated \( F \)-value, i.e., it is significant at \( p = \) less than .01 significance level. Therefore, the null hypothesis is rejected in favour of the hypothesis that, family income group of respondents has a significant effect in explaining the variation in consumers' saving decisions (hold / not hold a savings account). This finding explain that income of respondents has an influence on their saving decisions, since, as it is known, income plays an important role in consumer saving behaviour, thus, the higher the income the more opportunity to save.
**Educational Level of Respondents**

The calculated value of F-test for the predictor variable "educational level of respondents" is equal to:

\[
F = \frac{7.246}{4 - 1}
\]

\[
F = \frac{151.916 - 7.246}{621 - 4}
\]

\[
F (3, 617) = 10.301
\]

Tabulated F (3, 617) = 3.78 at p = .01 significant level. Thus, the calculated F-value exceeds the tabulated F-value, i.e., it is significant at p = less than .01 significance level. Therefore, the null hypothesis is rejected in favour of the hypothesis that, educational level of respondents has a significant effect in explaining consumers' saving decisions (hold / not hold a savings account). Thus, respondents' educational level has an influence on their saving behaviour (decisions).

**Occupation of Respondents**

The calculated value of F-test for the predictor variable "occupation of respondents" is equal to:

\[
F = \frac{44.2491}{10 - 1}
\]

\[
F = \frac{151.916 - 44.2491}{621 - 10}
\]

\[
F (9, 611) = 27.902
\]

Tabulated F (9, 611) = 2.41 at p = .01 significance level. Thus, the calculated F-value exceeds tabulated F-value, i.e., it is significant at p = less than .01 significance level. Therefore, the null hypothesis is rejected in favour of the hypothesis that, occupation of respondents has a significant effect in explaining the variation in consumers' saving decisions (hold / not hold a savings account).
account). In other words, occupation of respondents can influence their decisions to be savers or non-savers.

10.4 Conclusions:

The main objective of this chapter was to examine the relationship between consumers' saving decisions (hold / not hold a savings account), and consumers' profile characteristics such as: income, educational level, occupation, sex, age, marital status, and family size.

Therefore, in order to achieve this objective, Multiple Classification Analysis (MCA) was used in the analysis. The output of MCA provided several types of statistics, which helped in examining the relationship between consumers' saving decisions and consumers' profile characteristics.

However, the principal aims of this chapter were: (a) to examine the extent to which consumers' profile characteristics (the seven predictors taken together) contributed in explaining the variation in consumers' saving decisions; and (b) to determine the significance of consumers' profile characteristics in explaining the variation in consumers' saving decisions. The coefficient of determination \( R^2 \) value equal to (30) per cent, and the F-ratio value of (11.440) which it is significant at \( p = 0.01 \) level confirmed that there is a relationship between consumers' profile characteristics and consumers' saving decisions.

In other words, the coefficient of determination \( R^2 = 30 \) per cent refers to the fact that the seven profile characteristics were able to explain the variation in consumers' saving decisions. Thus, consumers' decisions are usually affected by different factors such as: consumers' personal characteristics, consumers' attitudes
towards the object, attributes of the object itself, social factors, motivations and advantages can be gained, and many other factors.

However, all the above mentioned factors have their contribution in explaining the variation in consumers' decisions. Therefore, the finding of this investigation is that consumers' profile characteristics contributed by 30 per cent in explaining the variation in consumers' saving decisions referred to two facts:

Firstly, in addition to consumers' personal characteristics there are some other consumers' attitudinal factors and service attributes, which can play an important role in explaining the variation in consumers' saving decisions, $R^2 = 70$ per cent such as: consumers' perceptions, attitudes, psychological characteristics, and lifestyle. Secondly, in spite of that, consumers' profile characteristics seemed to be of significant importance in explaining the variation in consumers' saving decisions.

The second set of aims was to examine the ability, and the significance of each predictor in explaining the variation in consumers' saving decisions. The output of MCA programme provided the required statistics to achieve such aims.

Firstly, the Beta values of the predictors used in the analysis concluded that: occupation of respondents came first in terms of its ability in explaining the variation in consumers' saving decisions which was followed by marital status (second), family size (third), age (fourth), income (fifth), educational level (sixth) and sex (seventh or the lowest Beta value).

Secondly, the F-ratio values of the same predictors used in the analysis concluded that six predictors were of significant importance in explaining the variation in consumers' saving decisions, and they are: Marital status, family size, age, family...
income, educational level, and occupation. The sex of respondents, which has the lowest Beta value was found to be insignificant in explaining the variation in consumers' saving decisions.

The above conclusions were again confirmed by using the F-test in testing the stated research hypotheses. Thus, all predictors taken together and each predictor taken separately were found to be of significant effect in explaining the variation in consumers' saving decisions, with only one exception being that the sex of respondents was found to be of no significance.

Sex of respondents in this study (i.e., the Iraqi society) was found to be of no significant influence on consumers saving decisions. However, it is possible to suggest that the main reasons for such a finding could be the following: (a) as in many Middle Eastern societies women play a minor role and men are dominant in the society; (b) women generally have less financial independence, or in other words, family financial affairs are conducted by men within the family; and (c) perhaps the lack of female participation in this survey (only 19% women) was one of the reasons for such a conclusion. As is well known in many Middle Eastern societies, female participation in marketing research surveys is one of the major problems facing many marketing researchers. The findings in relation to the influence of other consumers' characteristics such as age, income, marital status, education, family size and occupation on consumers' saving behaviour (decisions) are comparable to the findings of similar studies carried out in different environments (countries), as mentioned earlier in chapters three and nine of this investigation.
Finally, based on the main findings of the MCA output the main types of Iraqi consumers and their profile characteristics can be summarised as described in Table 10.3.

**Table 10.3 Main groups and characteristics of consumers.**

<table>
<thead>
<tr>
<th>Group Name</th>
<th>Group Characteristics</th>
</tr>
</thead>
</table>
| Good saver, or likely to be saver. | Male, married, 45-64 years old has:  
  a. three or less children,  
  b. a very high income (4000 I.D. and over),  
  c. higher education (University graduate and over), and  
  d. better occupation in terms of earning. |
| Saver, or can be a saver. | Male, married, his age (24-44), has:  
  a. three or less children,  
  b. a good income (3000-3999 I.D.),  
  c. a good educational level (University graduate and over), and  
  d. upper class occupation in terms of earning. |
| Saver / non-saver, or can be saver or non-saver depends on his / her situation. | Male or female, married or single, his / her age is 24 and over, has or has not children, has:  
  a. an average income (2000-2999 I.D.),  
  b. an average education (Secondary school or University graduate), and  
  c. middle class occupation in terms of earning. |
| Non-saver / or likely to be non-saver. | Male or female, married or single, very young (24 and under) or very old (65 and over), has:  
  a. no children or too many of them (four children and over),  
  b. a very low income (less than 2000 I.D.),  
  c. a very low education (less than Secondary school), and  
  d. lower class occupation in terms of earning. |
CHAPTER ELEVEN

CONCLUSIONS

11.1 RESEARCH CONCLUSIONS.

11.2 RESEARCH CONTRIBUTIONS.

11.3 RESEARCH LIMITATIONS.

11.4 RECOMMENDATIONS FOR FURTHER RESEARCH.
11.1 Research Conclusions:

Banks activities depend on their deposit taking system. In other words, banks accept money (deposits) from depositors and pay them interest on it in order to lend it to other customers who need it to finance their businesses. Therefore, at the end of the day banks will gain the difference between the lower interest they pay and the higher interest and other service charges they charge as a profit. Thus, in this system, as explained in figure 11.1, there are three main players: The first player is the bank who makes profit out of it as mentioned above. The second player is the depositor who gains interest on their savings and security to their money. The third player is the borrower who pays interest and other service charges to the bank for giving him/her a loan, then investing the loan into businesses and gaining higher return on it than the paid interest.

Figure 11.1: The money circulation between banks and customers.
Thus, given the importance of the deposits to banks as explained in figure 11.1, commercial (retail) banks found that in order to encourage consumers to deposit their money at the bank, they should adopt a new marketing approach, which should be more consumer-oriented rather than product-oriented.

However, this thesis is the result of a study of consumers' saving behaviour carried out through an empirical investigation of consumers' attitudes towards commercial banking services with special reference to savings accounts in Iraq. The main reasons for conducting this investigation can be summarised in the following: (a) There is an urgent demand to provide an understanding of consumers' behaviour and their needs and wants in matters related to banking in Iraq; (b) It is hoped that this investigation will contribute to the literature of bank marketing about the underdeveloped countries which is very limited, and in some countries, such as Iraq, there is no single attempt carried out to investigate this subject neither by banks nor by researchers; (c) Help in improving the quality of banking services, especially savings accounts, through effective marketing; (d) Establishing the extent to which the comprehensive models of consumer behaviour are applicable in investigating consumers' saving behaviour in Iraq; and (e) Relating consumers' attitudes, motivations, psychographic, socio-economic and demographic variables to their saving behaviour in Iraq. Therefore, a number of research objectives and related hypotheses were stated to guide this research's empirical part as mentioned in chapter one.

It was concluded in chapter four of the present investigation that the main purposes of bank marketing are creating and delivering satisfactory services to consumers at a profit to the bank, as
described in figure (11.1). The marketing concept for banks means
that banks must recognise that bank customers are changing in terms
of their wants, needs, problems and behaviour. Therefore, banks
should meet these changes through customer oriented marketing
strategies. Market research in banking is a method of carrying-out
empirical investigations about aspects of problems related to the
marketing concept in banking.

Through reviewing earlier similar and comparative marketing
research studies, i.e., those studies which are related specifically
to consumers' saving behaviour, the following conclusions were
derived: (a) Consumers' saving behaviour is subject to great
influence by their attitudes, motivations, socio-economic,
demographic and psychographic characteristics; and (b) Modern
consumers seek not only a good return on their savings, but they
seek convenience, respect, personal relationships with the bank and
availability of modern banking facilities.

However, it was concluded in the present investigation that
no attempt was made by previous studies to comprehensively
investigate consumers' saving behaviour as a separate concept. In
other words, most previous studies concentrated on one set or a few
more sets of variables which may influence consumers' saving
decisions, but no attempt was made to include all the possible sets
of variables to do the job. Also, most previous studies analysed
consumers' saving decisions through one dimension, such as
discriminating between customers of Banks and Savings and Loan
Associations. No attempt was made to analyse consumers according to
other dimensions than their bank selection such as: consumers'
saving decisions, saving habits, age, income, family size,
educational level etc.
In Iraq, as is the case in most underdeveloped countries, the banking system is still underdeveloped if compared with those of the developed countries. Most of the problems facing the present Iraqi banking system are the creation of nationalisation, i.e., transforming a bank ownership from the private to the public sector. Thus, with banks in Iraq being nationalised in 1964, the number of banks operating in the country has decreased from seventeen in its peak before nationalisation to only seven at present time, including the Central Bank of Iraq and other specialist banks. At the present time there are only two commercial (retail) banks in Iraq.

In such a banking system, where banks are state-owned, the first victims were consumers of banking services who were badly treated, neglected and poorly served and unfortunately for them, they have no other options but to deal with the existing unwanted banks. Therefore, one of the benefits of the present investigation is underlining the present problems and shortcomings in the performance of the commercial (retail) banks in Iraq, as discussed in chapter two of this study. Then, attempting to understand Iraqi consumers in terms of their wants, needs, desires and problems in order to improve the banking services for them in the future.

It was concluded in the discussions of the comprehensive models of consumer behaviour and the multi-attribute models of consumers attitudes in the present investigation that consumers' saving behaviour can be related to these models. Therefore, based on the models of consumer behaviour a model of consumer banking behaviour in Iraq was developed, as presented in figures 4.4, 4.5, 4.6 and 5.1 of chapters four and five of this investigation. This study's theoretical model of consumer banking behaviour was used as the base to establish the empirical part of the research, i.e., the
collection of data and its analysis. The empirical finding of the present investigation provided statistically tested results proving that a method of investigating consumer saving behaviour (decisions) can be achieved.

The design of the present investigation was based on the faceted design of the universe of content under investigation. Therefore, all the possible facets, sub-facets and items (variables) which are applicable to the problem under investigation, i.e., consumers' saving behaviour in Iraq, were included in the faceted research design. Thus, by adopting the faceted design as a research design for the present investigation it has been concluded that this study is:

A study of the cognitive aspects of individual consumers as perceived by them at the present time with regard to the aspects of, Context of Consumers' Saving Behaviour in Iraq, which are the following:

D1 Consumers' attitudes towards savings accounts.

D2 Bank attributes.

D3 Consumers' financial psychographic characteristics.

Towards the study's chief objective of investigating consumers' saving behaviour (decisions) in Iraq empirically, with special reference to opening savings accounts at commercial banks in Iraq.

However, in order to conduct the empirical part of this investigation a research questionnaire was designed to collect the primary data from respondents. A total sample of 800 respondents was selected from Iraq using two methods of probability sampling, area and systematic sampling. An overall response rate of 77.63 per cent was secured.
The collected data was then analysed according to the research objectives by using three major statistical techniques of data analysis available in the SPSS-X statistical package, these are: Factor Analysis, Discriminant Analysis and Multiple Classification Analysis. In addition, three statistical tests, the Kolmogorov-Smirnov Goodness-of-Fit One Sample Test, the F-Test and the T-Test were used to test the significance of the relevant research hypotheses.

The primary objective of using Factor Analysis in the present investigation was to identify a set of factors which are capable in explaining the following: How SAVERS, i.e., consumers who are banked with savings accounts, perceived the importance of 60 attitudinal variables in influencing their decisions of having savings accounts at commercial banks in Iraq with a minimal loss of information.

In order to achieve objective one of this investigation, Factor Analysis was carried out. The findings of Factor Analysis successfully identified thirteen factors which are capable of explaining SAVERS, i.e., respondents who are banked with savings accounts, attitudes towards the variables related to the service of savings accounts provided by commercial banks in Iraq with a minimal loss of information. In fact, a number of 57 variables, out of the original 60 attitudinal variables used in the analysis, were loaded with at least one of the factors extracted by Factor Analysis.

The results of the Kolmogorov-Smirnov test confirmed that respondents who are banked with savings accounts, in general, share the same attitudes towards the service of savings accounts provided by commercial banks in Iraq. In other words, they attached similar rates of importance to the variables which may influence their saving decisions.
In order to achieve objective two of this investigation, Two-Group Discriminant Analyses was carried out to discriminate between respondents according to their attitudes towards the 65 attitudinal variables used in the analysis. The discrimination between respondents was based on their saving decisions, i.e., banked with savings accounts vs. non-banked. The findings of Two-Group Discriminant Analysis confirmed that there are differences between consumers if divided according to their saving decisions in terms of the rates of importance they attached to the variables related to the service of savings accounts provided by commercial banks. Thus, the discriminant function extracted 18 variables of significant importance in discriminating between the two groups of respondents in terms of their attitudes towards the idea of saving and having savings accounts at commercial banks in Iraq.

The findings of the t-test confirmed that there are differences between consumers if divided according to their saving habits, i.e., good vs. poor savers, in terms of their attitudes towards the variables related to the service of savings accounts provided by commercial banks in Iraq. Thus, the results of the t-test indicated that 16 variables were of significant importance in underlining the dissimilarities between good and poor savers. In addition, the classification results confirmed that not all good savers are saving through savings accounts in Iraq. Thus, out of the 403 respondents who said that they were good savers, only 265 of them hold savings accounts, while the remaining 138 good savers appeared to be using other methods of saving, such as: keeping money in a secure place at home or transforming money into gold and jewelry instead of keeping it at a bank. In fact, such consumer behaviour in a country like Iraq is the result of many factors such
as: public distrust in banks because of political and economical instability, poor banking services, consumers dissatisfied with the treatment they receive from bank personnel, and a high level of illiteracy especially in matters related to banks and banking services.

The findings of the t-test confirmed that there are differences between respondents of two age groups (group A: 44 years and under vs. group B: 45 years and over) in terms of the rates of importance they attached to the attitudinal variables related to the service of savings accounts. A number of 4 variables identified by the t-test as of significant importance in underlining the dissimilarities between the two age groups of respondents.

The findings of the t-test confirmed that there are differences between respondents of two family size groups (group A: families of 5 and under vs. group B: families of 6 and over) in terms of their attitudes towards the idea of saving and having savings accounts at commercial banks. The t-test identified a number of 5 variables of significant importance in explaining the dissimilarities between the two family size groups of respondents.

The findings of the t-test confirmed that there are differences between respondents of two income groups (group A: 2999 I.D. and under vs. 3000 I.D. and over) in terms of their attitudes towards the service of savings accounts provided by commercial banks in Iraq. The results of the t-test identified 4 variables of significant importance in explaining the differences in the rates of importance attached by the two income groups of respondents to the variables related to the service of savings accounts provided by commercial banks in Iraq.
Finally, the finding of the t-test confirmed that there are differences between respondents of two educational level groups (group A: graduates of Secondary schools and under vs. group B: graduates of Universities and over) in terms of their attitudes towards the idea of saving and having savings accounts at commercial banks in Iraq. In fact, the t-test extracted 5 variables of significant importance in underlining the dissimilarities in the attitudes of the two educational level of the groups of respondents.

When a comparison was made between the findings of the present investigation's Discriminant Analysis and T-Test with the findings of previous investigations the following conclusions were made: Firstly, the methods and findings of the present investigation confirmed most of the findings of comparative previous investigations. Secondly, the present investigation if compared with previous investigations was more comprehensive in terms of the size of the sample used and the advanced statistical methods of data analysis employed. In addition, it was the first attempt made to study the problem of consumers' saving behaviour and decisions in a comprehensive approach. Thus, all the relevant attitudinal, motivational, psychographic, socio-economic and demographic variables which are applicable to the Iraqi consumers' were used in order to investigate the problem of consumers' saving behaviour in Iraq.

Finally, in order to achieve the third objective of the present study, the Multiple Classification Analysis (MCA) was used to examine the relationship between consumers' saving decisions (hold / not hold a savings account) and seven of their socio-economic and demographic characteristics, such as: Sex; Marital Status; Age; Family size; Income; Educational level; and Occupation.
The findings of the MCA confirmed that there are relationships between consumers' saving decisions and their socio-economic and demographic characteristics when taken together and separately, with one exception that sex of respondents was found of no significant importance in influencing consumers' saving decisions.

In addition, the results of the F-test for the relevant research hypotheses confirmed that:
1. Sex of respondents has no significant effect in explaining the variation in consumers' saving decisions (hold / not hold a savings account) in Iraq.
2. Respondents' marital status, age, family size, income, educational level and occupation have significant effect in explaining the variation in consumers' saving decisions (hold / not hold a savings account) in Iraq.

11.2 Research Contributions:

The present investigation has some theoretical, methodological and practical contributions to the existent knowledge in bank marketing:

1. The Theoretical and Methodological Contributions:

1. A theoretical model of consumer banking behaviour is developed, as presented in figures 4.4, 4.5, 4.6 and 5.1 of this research. In comparison with most general models of consumer behaviour this study's model is developed to deal specifically with the problem of understanding consumer banking behaviour, especially in the underdeveloped countries. Also, it includes the role of some bank and banking services attributes, consumers' financial psychographic, socio-economic and demographic characteristics on consumer behaviour
in banking. Then, the model was empirically used and tested through the process of data collection and analysis, as described in the findings section of this research.

2. The use of marketing research in banking in comparison with other industries, is a relatively recent development. However, most bank marketing researches were conducted in the developed countries, especially in the United States of America. Therefore, one of the theoretical contributions of this investigation is extending the use of bank marketing research techniques in the underdeveloped countries. This study is the first bank marketing research study carried out about Iraq, as one of the underdeveloped countries where the concept of banking and advancement in banking facilities differ significantly from that in the developed countries. Thus, this study's theoretical model and its empirical application in Iraq can be generalised and be used in other underdeveloped countries similar to Iraq in order to provide better understanding for consumer banking behaviour in the underdeveloped world.

3. The present investigation extended the application of Facet Theory, as a systematic description for the universe of content under investigation, in the area of bank marketing research in general and in investigating consumer banking behaviour in Iraq, as one of the underdeveloped countries, in particular.

4. This investigation is a method to study consumers' saving behaviour in a comprehensive approach. In other words, the present investigation used a combination of some attitudinal, psychographic, socio-economic and demographic variables to study consumers' saving behaviour more comprehensively in comparison with previous comparative studies. Thus, more consumer banking behaviour variables
were used in the present study than previous comparative studies in order to provide better understanding of consumer saving behaviour.

5. The present investigation defined the differences between consumers' according to six dimensions of which the most important of them is consumers' saving habits. It provided some new information about why some people, especially in the underdeveloped countries where political and economic instability created public distrust in the banking system, save through methods of savings other than having savings accounts, such as: transferring their savings into gold and other jewelry or keeping them simply in a secure place at their homes.

6. The present investigation provided new discussions about the problems facing many underdeveloped countries who nationalised their banking system in the past when the wave of nationalisation affected most underdeveloped countries. In addition, suggestions were made to help overcome the problems facing the present nationalised (state-owned) Iraqi banking system in terms of what should be done to repair the damage created by the nationalisation and if privatisation is the possible solution to the problems.

7. The present study defined the variables which may influence actual savers, i.e., consumers who are banked with savings accounts. Then, a comparison was made between consumers' according to six dimensions, these are: (1) Consumers' saving decisions; (2) Consumers' saving habits; (3) Consumers' age group; (4) Consumers' family size; (5) Consumers' income group; and (6) Consumers' educational level.

8. The present study investigated the concept of consumers' saving behaviour, as a separate concept, and analysed accordingly. This was done by examining the relationship between consumers' saving
decisions and their attitudes, motivations, financial psychographic, socio-economic and demographic characteristics.

9. The present investigation employed a hybrid method of sampling through using a combination of two methods of probability random sampling, area and systematic sampling, to derive a representative sample of the population under investigation. In addition, because in Iraq, as is the case in many underdeveloped countries, statistical data about population of a city is impossible to obtain, the locally selected representative of district records was used as a base for the purpose of selecting the sample from each district. This is the only acceptable way by which reliable data can be obtained about population in a country like Iraq. People in Iraq keep contact with local representatives because they need them to certify that they are living in that particular district when they process any formal transactions with the authorities. In addition, the decision was made to divide the City of Baghdad into 20 districts and the prime consideration in making the division was the standard of living in each district in order to include wealthy, middle class and poor districts. Then, from each district, 40 respondents were selected of which 20 were "banked with savings accounts" and 20 were "non-banked". This study is distinct among other marketing research studies in terms of sampling procedures. Dividing a big city into districts according to residents' standard of living, then selecting an equal number of respondents from each district of which half should be "banked with savings accounts" and the other half "non-banked" created a new approach in solving the problem of sampling in the underdeveloped countries (for more details see chapter six).
10. The findings of the present investigation provided more information about consumer saving behaviour in comparison with previous comparative studies, as follows: (a) It identified the main factors which are perceived as important by actual savers in influencing their decision to hold a savings account at a commercial bank; (b) It identified the similarities between actual savers in terms of their attitudes towards the service of savings accounts provided by commercial banks on one hand, and the dissimilarities between them and non-savers on the other hand; (c) It identified some financial psychographic characteristics which have an influence on consumers saving decisions; and (d) the relationship between a set of consumers socio-economic and demographic characteristics and their saving decisions was analysed and reported. Therefore, it can be stated that the present study provided a better and more comprehensive understanding of consumer saving behaviour, especially in the underdeveloped countries.

11. The present investigation is the first to use the Multiple Classification Analysis computer programme as a method to examine the relationship between consumers’ saving decisions and their socio-economic and demographic characteristics.

2. The Practical Contributions:

1. It is hoped that the discussions, issues, proposals and findings made in the present investigation will contribute to efforts to overcome the problems and poor performance facing the Iraqi banks and the entire Iraqi banking system. Also, because the problems which are facing the Iraqi banking industry are common factors in many underdeveloped countries, it is hoped that other countries
which are similar to Iraq will benefit from the conclusions made in
the present investigation.

2. The findings of the present study provide some benefits in regard
to encouraging the idea of saving and mobilisation of finance in
Iraq. Thus, in Iraq, as is the case in many underdeveloped
countries, public distrust in the banking system led to less use of
saving facilities provided by banks and other financial
institutions. Therefore, the practical findings of the present
research have three levels of benefit:

a. At the national level: Defining consumers attitudes,
motivations and characteristics is the first step in
improving the services relating to saving facilities
provided by banks and encouraging consumers to save. Thus,
this study provides some information about the banking
behaviour of Iraqi consumers. This can help the Iraqi
state-owned banks to perform better and gain more
customers. This will help the government in its efforts to
achieve greater mobilisation of finance, and better use of
national financial resources within the national economy.

b. At the banking system level: Improving the service of
savings accounts and its related facilities by banks means
more savers who want to open savings accounts at the banks.
In other words, more deposits means increasing the lending
ability of the banks to provide loans for other customers
and gaining more profits out of it.

c. At the consumers level: The findings of the present
investigation defined the most important variables which
may effect consumers saving decisions. Therefore, it is the
banks duty then to improve their services which at the end
of the day will benefit consumers and encourage them to be savers for their own benefit.

1. The present study can be used as a practical reference by the banks, especially in Iraq, in establishing how to conduct a bank marketing research to solve the existing and possible future banking problems related to consumers.

11.3 Research Limitations:

The present investigation is subject to the following limitations:

1. As the present study was conducted in an underdeveloped country, i.e., Iraq, the selection of facets, sub-facets, and items (variables) from the universe of content according to the research facet design was affected by the level of advancement in the banking sector, i.e., the banking services and facilities available to consumers. Also, it was affected by Iraqi respondents overall understanding and knowledge of the variables under investigation. In other words, some variables were excluded because Iraqi respondents have no knowledge of them because of their nonexistence in Iraq, such as: variable related to the automatic banking services.

2. Consumers' saving behaviour is a very complex subject and there are a huge number of variables which may affect it. However, the selection of the variables in the present investigation was limited to the facets defined by this research's facet design. In other words, it was limited to the effect of consumers' attitudes, motivations, psychographic, socio-economic, and demographic variables, while other aspects such as, for example, government regulations and the effect of political stability on consumer behaviour, were excluded from this investigation because they are out of the scope of this study and require separate investigation.
3. The study was an empirical investigation of consumers' attitudes towards commercial banking services, with special reference to savings accounts in Iraq, and because banks, banking services and consumers banking knowledge in Iraq are underdeveloped the present research was affected largely by this fact.

4. This study is a bank marketing research carried out in a U.K. university, but the empirical investigation is about an underdeveloped country, i.e., Iraq. Therefore, as is the case with most studies carried out about underdeveloped countries, the present study suffers from the following technical limitations:

a. The selection of the sample of respondents for the purpose of data collection was a major difficulty in this investigation. Thus, as is the case in many underdeveloped countries, there are no up-to-date accurate statistics about the population and, if it exists access to them is impossible to obtain. For example, in the present investigation data about population socio-economic and demographic characteristics was not available and only a map of the city was available. Therefore, the decision was made to divide the city into blocks, chunks, units and houses, then respondents were selected and interviewed in their houses to collect the required data.

b. Respondent error was another difficulty in this investigation with the result that although 800 questionnaires were delivered to respondents personally (hand-to-hand) and assistance was provided to most respondents, only 621 usable questionnaires were secured.

c. The above mentioned technical difficulties caused costs in time, effort and money.
d. Female participation in the present investigation was low, only 18.8 per cent of the total sample being female. In fact, this is a problem in most Middle Eastern Countries where female participation in surveys is affected by the traditions of that part of the World.

5. The present research attitudinal (ordinal) data is measured by a 5-Point Likert Scale. Therefore, the selection of statistical techniques of data analysis was affected by the limitations of using the Likert Scales. However, most researchers treat the data from such scales as if they were equal to interval in nature, since the results of most standard statistical techniques, such as Factor Analysis and Discriminant Analysis, are not affected by small deviation from the interval requirements.

6. Finally, the undertaking of this investigation was affected by the unhappy events in Iraq during the Gulf Crisis, which affected the study in terms of obtaining further data about the problem under investigation and in terms of financial resources available to carry on the investigation.

11.4 Recommendations for Further Research:

This thesis was a result of a study of consumers' saving behaviour in Iraq. In addition, the present investigation was an extension to the applications of consumer behaviour theories into the area of consumers' banking behaviour in general and consumers' saving behaviour in particular. Therefore, more research is needed to cover other aspects and dimensions related to this subject in order to provide better understanding of consumers' banking behaviour. However, it has been felt that one of the duties of this research is to recommend areas for further research in consumers' banking behaviour:
1. More research is needed to investigate consumers' saving behaviour and if possible in a more comprehensive approach. That can be done through employing not only consumers' attitudes, motivations and other personal characteristics, but, employing other possible variables which may have an effect on consumers' saving behaviour such as:

a. The role of government and banks regulations on consumers' saving behaviour.

b. The effect of consumers' life style and beliefs, such as religion, on consumers' saving behaviour.

c. The role of World and each nation's political and economical situation, i.e., stability and instability, on consumers saving decisions.

2. More research is needed to investigate the differences between different segments of savers. For example, the differences between savers who save through savings accounts and others who save through keeping their money at home or transferring it into gold and other jewelry.

3. Further research can be done to investigate the differences between savers and investors. In other words, why some people choose to save at a bank while others choose investment by themselves or again through a bank and taking the risk, i.e., low risk takers (savers) vs. high risk takers (investors).

4. Further research can be done to extend the methods used in the present investigation to investigate the use of other financial and banking services.

5. In the present investigation the relationships between consumers' saving decisions (hold / not hold a savings account) and their socio-economic and demographic characteristics were investigated.
But, further research is needed to examine the relationships, for example, between consumers' saving habits (frequent vs. infrequent savers or good vs. poor savers, and so on) and their socio-economic and demographic characteristics.

6. More research is needed to investigate the psychology of consumers' of banking services in terms of what their wants and needs are and how they think about the banking services provided for them.

7. More research can be done to investigate the role of the new banking technology on consumers' perception of banks and the services they provide especially in those countries who have that technology.

8. More bank marketing research should be done in the underdeveloped countries in order to reach consumers and understanding them. Thus, consumers in most underdeveloped countries are neglected, badly treated and left unsatisfied but they have no option but to deal with the existing banks.

9. More research can be done to investigate the differences between consumers' of financial services in terms of their attitudes, wants, needs and opinions and according to their socio-economic and demographic characteristics.

10. The present investigation can be extended to investigate consumers of other institutions who provide some financial services, such as: Building Societies and Post Offices savings accounts facilities. Also, it can be extended to be carried out in other environments, i.e., countries, especially the underdeveloped countries.
References


Variables, DBA Dissertation, University of Alabama, The U.S.A.


Khalaf, F. H. (1977), The Banking Credit and Its Role in The Iraqi Economy, Al-Mustansiriyah University, Iraq.


Martin, P. (1967), "Savings and loans in new submarkets: Search for


vol. 5, pp. 35-38.


The Banking Act No. 43, 1947, Iraq.
The Banking Act No. 72, 1956, Iraq.
The Banking Act No. 64, 1964, Iraq.
The Banking Act No. 100, 1964, Iraq.


Ashforth, T., "Increasing competition between banks and life insurance companies: A clash of giants or a non-event?", International Journal of Bank Marketing, 6, 1, 1988, pp. 5-13.


Barton, T. H., "How to make marketing work in your bank?", Banking, The USA, September 1965, pp. 65-72.

Bartman, P., "The corporate banking customer", European Research,


Berry, L. L., "Banking, marketing and the image of concept", Arizona Business Bulletin, vol. 15, no. 9, November 1968, pp. 239-244.


Briggs, G., "New thrusts and directions in bank marketing", Bankers Monthly Magazine, vol. 88, part 8, August 1971,


Cooley, J. L., "Banking goes to market", Banking, The USA, August 1965, pp. 43-45.


Haas, R. W., "Marketing the bank card to users and non-users", Banking, The USA, vol. 65, part 3, September, 1972, pp. 23, 26, 90.


Jones, G. L., "Family finance centre? It could be a service


Kaynak, E., "Difficulties of undertaking marketing research in the developing countries", *European Research*, vol. 6, no. 6, November 1978, pp. 251-259.


1972, pp. 20-27.


Myers, J. G. and Nicosia, F. M., "On the study of consumer


Newton, L. F., "Research challenges banking myths", Banking, The USA, April 1965, pp. 54-56.


Person, R. J., "Losing customers, keeping customers", Banking, The USA, October 1975, pp. 92-96.


Pool, A. A., "Application of discriminant analysis in formulation of promotional strategy for Cash-Dispensing Machines", 332


Riggall, J., "What counts with bank customers?", Banking, The American Bankers Association, May 1979,


Roter, R., "NatWest's fight to overcome the fear barrier", *Campaign*, 23 March, 1979, pp. 33, 36.


Stanley, T. J., Berry, L. L. and Danko, W. D., "Personal service
versus convenience perception of the high-income consumer",

The Journal of Retail Banking, June 1979, pp. 54-61.

Stafford, D. C., Bank Advertising and the Personal Saving Market,

Szatrowski, T., "Bank marketing with a difference", The Bankers

Thomas, K. H., "Framework for branch performance evaluation",
Journal of Retail Banking, vol. 4, part 1, 1982, pp. 24-34.

Thompson, D. W., "Reading customer behaviour, does your sales force
really know the ABCs?", Bank Marketing, November 1985,
pp. 46-52.

Tyler, W., "Organising for marketing", Banking, vol. 66, August

Valentine, S. and Mason, S., Teach Yourself Banking, Hodder and

Volckhausen, G., "Market research is for you", Burrogh Clearing

Wasem, G. M., "The triple dilemma of bank marketing", The Bankers'

Wasem, G. M., "Emerging trends in bank marketing", Bankers' Monthly

Wasem, G. M., "Marketing and campaigns (part 1)", Bankers Monthly

Wasem, G. M., "Marketing and campaigns (part 2)", Bankers Monthly

Wasem, G. M., "The marketer and profit", Bankers Monthly Magazine,

Wasem, G. M., "Position description: the marketing officer",


Dear respondent:

I am a Doctoral student at the University of Sheffield in the United Kingdom, and I am currently undertaking a research study into Consumers' Attitudes towards Commercial Banking Services in Iraq, with particular reference to Savings Accounts.

I would be grateful if you could assist me by answering the enclosed questionnaire. Any information and responses provided will be confidential and analysed in aggregate.

The results of this study will hopefully help the Iraqi banks to identify your needs and wants in order to satisfy them, and to provide better banking services for you and other Iraqi bank customers in the future.

Thank you very much for your cooperation.

Sincerely,

Salim K. Hussain
Ph.D research student
Part 1: Attitudes towards savings accounts.

In this part, I would like you to rate the importance of each of the following statements on the basis of their importance to you in your decision to open a savings account at a commercial bank:

<table>
<thead>
<tr>
<th>Statement</th>
<th>Very Important</th>
<th>Important</th>
<th>Some Importance</th>
<th>Not Important</th>
<th>Not Important at All</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Savings help to meet increasing living expenses.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. Savings help to beat inflation.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. Savings help to make sure the family is protected in case of emergencies.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. Savings help to build up a retirement fund.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. Savings help to increase the overall standard of living.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. Savings help in buying property for family accommodation.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7. I feel my money is safe.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8. Savings are an investment.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>9. I can easily deposit savings at the bank.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>10. I can easily withdraw money from the bank.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>11. I feel I own part of the bank.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>very important</td>
<td>important</td>
<td>some importance</td>
<td>not important</td>
<td>not important at all</td>
</tr>
<tr>
<td>---</td>
<td>---------------</td>
<td>-----------</td>
<td>-----------------</td>
<td>--------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>12. Savings help to start a new business.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>13. Savings help to cover marriage expenses.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>14. I already use other services at this bank.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>15. Bank pays higher interest rate on savings.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>16. A savings account is a good method to keep surplus money.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>17. Because of advice from friends.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>18. Because of advice from family members.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>19. Own decision.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>20. Bank personnel are concerned about each of their customers.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>21. Bank personnel are knowledgeable.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>22. Bank managers listen to their customers' needs.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>23. There is a good interaction between staff and customers.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>24. Bank personnel are friendly.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>25. Bank personnel give advice to customers.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>26. Bank personnel are willing to explain the services offered.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>very important</td>
<td>important</td>
<td>some importance</td>
<td>not important</td>
<td>not important at all</td>
</tr>
<tr>
<td>---</td>
<td>----------------</td>
<td>-----------</td>
<td>-----------------</td>
<td>---------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>27. Bank management is always available for consultation.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>28. Friendliness of tellers.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>29. Complaints are dealt with.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>30. Bank personnel make me feel important as a customer.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>31. Length of time required to process transaction.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>32. Length of waiting time before being served.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>33. Convenient hours of operation for savers.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>34. Special lines for savings accounts holders.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>35. Accuracy of bank transactions.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>36. Confidentiality of bank transactions.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>37. Easiness of processing bank transactions.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>38. Bank is located near shopping centre.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>39. Bank is located near home.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>40. Bank is located near place of employment.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>41. Bank has many branch locations.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>very important</td>
<td>important</td>
<td>some importance</td>
<td>not important</td>
<td>not important at all</td>
</tr>
<tr>
<td>---</td>
<td>----------------</td>
<td>-----------</td>
<td>------------------</td>
<td>---------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>42. Bank has parking facilities for customers.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>43. Bank is located near public transportation (bus stop, taxi stand).</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>44. Easy entrance to and exit from bank building.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>45. Bank building has modern design.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>46. Availability of waiting areas inside the bank for customers.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>47. Bank has large building.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>48. Bank is well-known.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>49. Bank has been well-established for many years.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>50. Bank has a good reputation.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>51. Bank has many branches.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>52. Bank advertises on Television.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>53. Bank advertises on Radio.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>very important</td>
<td>important</td>
<td>some importance</td>
<td>not important</td>
<td>not important at all</td>
</tr>
<tr>
<td>---</td>
<td>----------------</td>
<td>-----------</td>
<td>-----------------</td>
<td>---------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>54.</td>
<td>Bank advertises in newspapers.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>55.</td>
<td>Bank advertises in magazines.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>56.</td>
<td>Personal contact by bank personnel.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>57.</td>
<td>Bank has full-range of bank services.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>58.</td>
<td>Bank provides regular statements of savings balance for customers.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>59.</td>
<td>Bank has competitive service charges (interest on loans, other charges).</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>60.</td>
<td>Bank provides different promotions for savers (free prize draws, free life insurance up to 1000 I.D., etc.).</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
Part 2: Psychographic characteristics regarding banking and financial matters.

In this part, I would like you to indicate your degree of satisfaction with each of the following statements, by circle the number that best describes your feelings about that statement:

<table>
<thead>
<tr>
<th>Statement</th>
<th>strongly agree</th>
<th>agree</th>
<th>neither agree nor disagree</th>
<th>disagree</th>
<th>strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am a good saver.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I like to pay cash for everything I buy.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>To buy anything, other than a house on credit is unwise.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>A person can save a lot of money by looking for the lowest possible prices when shopping.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>It is good to have savings account, because it is useful.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
Part 3: Profile data on respondents:

The questions in this part deals with your personal profile data. Please read each question carefully and place an "x" in the box that best describes your situation:

1. Do you presently have a savings account at a commercial bank?
   - [ ] Yes
   - [ ] No

2. Are you
   - [ ] Male
   - [ ] Female

3. Are you
   - [ ] Single
   - [ ] Married

4. Please indicate your age group:
   - [ ] 24 and under
   - [ ] 25-44
   - [ ] 45-64
   - [ ] 65 and over

5. Please indicate your family size group:
   - [ ] Single
   - [ ] Couple without children
   - [ ] Couple with three children and under
   - [ ] Couple with four children and over
6. Please indicate your household yearly income range. If you are the only member of your household, please indicate your income range:

[ ] Under 2000 I.D. [ ] 2000-2999 I.D.
[ ] 3000-3999 I.D. [ ] 4000 I.D. and over

7. Please indicate the best description of your household head's educational level:

[ ] Less than Secondary School
[ ] Secondary School graduate
[ ] University or College graduate (B.Sc., B.A.)
[ ] Higher education graduate (Ph.D., M.Sc., M.A.)

8. Please indicate the best description of your household head's occupation:

[ ] General manager and higher positions
[ ] Manager
[ ] Teacher (at School or University)
[ ] Clerk (Office-worker)
[ ] Labourer
[ ] Pensioner
[ ] Owner of private business
[ ] Farmer
[ ] Housewife
[ ] Student

Thank you very much for your cooperation.
استمارة استطلاع رأي

أخي المواطن

اني طالب دكتوراه في جامعة شفيلد في المملكة المتحدة، واني حالياً اجري دراسة الدكتوراه الموسمة "مواقع المستهلكين من الخدمات المصرفيه التجارية مع اشارة خاصة لحسابات التوفيره.

واني ساكون شاكراً لمساعدتكم الطيبة لي من خلال اجابكم على الاسئلة الواردة في استمارة استطلاع الرأي هذه ونؤكد ان كل معلومة اوجابة سوف تعطونها ستكون لغرض الدراسة فقط وليس مطلوب منكم اعطاء الاسم ار العنوان.

انه للمؤمل ان تساهم نتائج هذه الدراسة في تطوير الخدمات المصرفيه في العراق من خلال مساعدة مؤسساتنا المصرفيه في معرفة وتحديد متطلباتكم ورغباتكم وماهي السبل المتوفره للمصارف لغرض تحقيق ذلك لتوفير خدمات مصرفية افضل لك ولكل مواطن.

واخيراً شكراً جزيلاً لتعاونكم ...

المخلص
الطالب سلم كريم حنانيا
طالب دكتوراه
1: هل لديك حساب توفير في مصرف تجاري في الوقت الحاضر؟
لا
نعم

القسم الأول: خاص بمواعيد المستهلكين من الخدمات المصرفية
(وشكل خاص حسابات التوفير)
في هذا القسم ستستجذ عدد من الجمل، يرجى قراءة كل جملة بعناية ولكل جملة ضع دائرة حول الإجابة "الرقم" التي تصف بدقة وجهة نظرك حول اهميتها في اتخاذك لقرار فتح حساب التوفير أو عدمه لدى أحد المصارف التجارية
وكمية: مهم جداً=1 مهم=2 بعض الأهمية=3 غير مهم=4 غيرهم على الإطلاق=5

<table>
<thead>
<tr>
<th>الإجابات</th>
<th>الاستطلاع</th>
</tr>
</thead>
<tbody>
<tr>
<td>مهم جدًا=1 مهم=2 بعض الأهمية=3 غير مهم=4 غيرهم على الإطلاق=5</td>
<td></td>
</tr>
<tr>
<td>غيرهم</td>
<td>غيرهم</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>

- التوفير يساعد على مواجهة الزيادة في نفقات المعيشة.
- التوفير يساعد على مواجهة التضخم.
- التوفير يساعد على حماية العائلة عند الضرورات القصوى.
- التوفير يساعد على توفير مباع.
- الادخار يساعد على رفع مستوى المعيشة.
<table>
<thead>
<tr>
<th>الاستجابة</th>
<th>مهم جداً</th>
<th>مهم جداً</th>
<th>مهم جداً</th>
<th>مهم جداً</th>
<th>مهم جداً</th>
<th>مهم جداً</th>
</tr>
</thead>
<tbody>
<tr>
<td>على الأطلاع</td>
<td>غير مهم</td>
<td>غير مهم</td>
<td>غير مهم</td>
<td>غير مهم</td>
<td>غير مهم</td>
<td>غير مهم</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>8</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>9</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>10</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>11</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>12</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>13</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>14</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>15</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>16</td>
<td>11</td>
<td>11</td>
<td>11</td>
<td>11</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>17</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>18</td>
<td>13</td>
<td>13</td>
<td>13</td>
<td>13</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td>19</td>
<td>14</td>
<td>14</td>
<td>14</td>
<td>14</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>الإجابة</td>
<td>غير مهم على الأطلاق</td>
<td>غير مهم</td>
<td>مهم مهماً</td>
<td>مهم مهم</td>
<td>مهم جداً</td>
<td></td>
</tr>
<tr>
<td>---------</td>
<td>---------------------</td>
<td>---------</td>
<td>-----------</td>
<td>---------</td>
<td>---------</td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

- موظف المصرف يهتمون بكل زبون من زبائنتهم.
- موظف المصرف متفهمين في مجال عملهم.
- إدارة المصرف تسعى لرغبات كل الزبائن.
- هناك علاقات ودية متبادلة بين الموظفين في المصرف والزبائن.
- موظف المصرف طيب.
- موظف المصرف يقدم النصائح للزبائن عند الحاجة.
- موظف المصرف لهم رغبة في شرح الخدمات للزبائن.
- مسؤول المصرف حاضرين دائماً لاجابة استفسارات الزبائن.
- انتهاء الصندوق يتعاملون بطف.
- شكاوى الزبائن يستجيب له.
- موظف المصرف يعمل لي نشر كوبون مهم للمصرف.
- طول الفترة الزمنية لقضاء المعاملة.
- طول ألفة المصرف للانتظار قبل أن تؤدي إلى الخدمة.
- أوقات يوم المصرف ومدى مناسبتها للزبائن.
الإجابة

<table>
<thead>
<tr>
<th>الاسم</th>
<th>غير مهم</th>
<th>مهم بعض الأهمية</th>
<th>مهم جداً</th>
<th>غير مهم على الأطلاق</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>8</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>9</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>0</td>
</tr>
</tbody>
</table>

- يوجد خطوات سريعة خاصة لتمشية معاملات أصحاب حسابات التوفير.
- دقة المعاملات المصرفية.
- مؤقتة المعاملات المصرفية.
- انسيابية المعاملات المصرفية.
- قرب المصرف من مراكز النشاط.
- قرب المصرف من السكن.
- قرب المصرف من مكان العمل.
- المصرف له عدد من الفروع مواقعها قريبة.
- المصرف لديه موقف سيارات خاص للزيائنين.
- قرب المصرف من المواصلات العامة ومناطق وقوف حافلات نقل الركاب .. الخ.
- سهولة الدخول إلى والخروج من بناء المصرف.
- بناء المصرف حديثة وجميلة.
- توفر ميكانات مريحة للانتظار داخل المصرف.
- بناء المصرف كبيرة.
- المصرف معروف للجميع (مشهور).
- المصرف تأسس منذ سنوات طويلة (قد يجذب ومعرف).
- المصرف ذي سمعة طيبة.
- المصرف لديه عدد كبير من الفروع.
<table>
<thead>
<tr>
<th>رقم الإجراء</th>
<th>مادة</th>
<th>حصة محلية</th>
<th>حصة على مستوى البلاد</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>مادة 1</td>
<td>20%</td>
<td>30%</td>
</tr>
<tr>
<td>2</td>
<td>مادة 2</td>
<td>25%</td>
<td>35%</td>
</tr>
<tr>
<td>3</td>
<td>مادة 3</td>
<td>30%</td>
<td>40%</td>
</tr>
<tr>
<td>4</td>
<td>مادة 4</td>
<td>35%</td>
<td>45%</td>
</tr>
<tr>
<td>5</td>
<td>مادة 5</td>
<td>40%</td>
<td>50%</td>
</tr>
</tbody>
</table>

الإجابة: 
- 
- 

(الإجابة تعتمد على السياق الكلي للنص وربما تتضمن تحليلات أو توضيحات إضافية غير مدرجة في الصورة.)
القسم الثاني:

الخاصة بخصائص السلوك الشخصي للمشاركون في امور تتعلق بالامور المالية.

في هذا القسم أرجو منك تعبير درجة قناعتك مع كل من العبارات التالية عن طريق وضع دائرة حول الرقم الذي يصف بعناية شعورك حول كل عبارة:

<table>
<thead>
<tr>
<th>الإجابات</th>
<th>موافق بقوة=5</th>
<th>لا موافق ولا غير موافق=2</th>
<th>غير موافق=4</th>
</tr>
</thead>
<tbody>
<tr>
<td>موافق</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>موافق ولا غير موافق</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>غير موافق</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

الإجابة:

1- نادي مدرسي.
2- نادي ادفqué لكل شيء اشتريه.
3- ان الاقتراض لشراء شيء عديم الاعتقاد، بيث للسكن غير عقلاني.
4- الشخص يمكن أن يوفر مبالغ من خلال البحث عن اوضاع الأسعار لشراء حاجاتله.
5- امتلاك حساب توفير في المصرفي فكرة نافعة وواجدة.

القسم الثالث:

بيانات شخصية حول المشاركين في الإجابة.

السؤال في هذا القسم وهو بيانات شخصية فيرجى قراءة كل سؤال بعناية.

وضع علامة √ في المربع المناسب الذي يصف بدقته حالتك:

- هل أنت ذكر أم امرأة؟
- متزوج أم اعزب؟
3- ماهي فئة عمرك؟
- 25 - 44 سنة
- 45 - 64 سنة
- 65 سنة فاكثر

4- ماهو حجم عائلتك (عدد أفراد الأسرة)?
- عائلة بدون اطفال
- عائلة لديهم اطفال فاكثر
- عائلة لديهم 3 اطفال فاكثر
- (زوج وزوجة لوحدهم)
- (غير متزوج)

5- ماهي فئة دخل عائلتك السنوي (أذا كان أكثر من واحد يعمل في العائلة فضلاً، التفصيل لبعضها)?
- اقل من 2000 دينار سنوياً
- 2000 - 2999 دينار سنوياً
- 3000 - 3999 دينار سنوياً
- 4000 دينار سنوياً فاكثر

6- ماهو مستوى تعليم رب العائلة (الشهادة الحاصل عليها)?
- خريج الدراسة المتوسطة فما دون
- خريج الدراسة الإعدادية
- خريج احدي الكليات أو الجامعات (بكالوريوس)
- خريج الدراسات العليا (دكتوراه، ماجستير، دبلوم عالي)

7- ماهي وظيفة رب العائلة
- مدير عام فما فوق
- معلم اومدرس
- فلاح
- متقاعد
- ربة بيت
- عامل
- مالك لأعمال أخرى
- طالب

وتفضلوا بقبول جزيل الشكر لتعاونكم
APPENDIX B

The D-Values of the Kolmogorov-Smirnov Goodness-of-Fit Test

<table>
<thead>
<tr>
<th>Variable</th>
<th>Category</th>
<th>Fo (x) - Sn (x) = D-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>v1</td>
<td>1</td>
<td>.200 .430 .230</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>.400 .750 .350</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>.600 .927 .327</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>.800 .957 .157</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1.000 1.000 .000</td>
</tr>
<tr>
<td>v2</td>
<td>1</td>
<td>.200 .298 .098</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>.400 .618 .218</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>.600 .875 .275</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>.800 .947 .147</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1.000 1.000 .000</td>
</tr>
<tr>
<td>v3</td>
<td>1</td>
<td>.200 .732 .532</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>.400 .909 .509</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>.600 .984 .384</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>.800 .992 .192</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1.000 1.000 .000</td>
</tr>
<tr>
<td>v4</td>
<td>1</td>
<td>.200 .468 .268</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>.400 .728 .328</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>.600 .939 .339</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>.800 .977 .177</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1.000 1.000 .000</td>
</tr>
<tr>
<td>v5</td>
<td>1</td>
<td>.200 .464 .264</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>.400 .664 .264</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>.600 .868 .268</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>.800 .943 .143</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1.000 1.000 .000</td>
</tr>
<tr>
<td>v6</td>
<td>1</td>
<td>.200 .404 .204</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>.400 .634 .234</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>.600 .883 .283</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>.800 .943 .143</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1.000 1.000 .000</td>
</tr>
<tr>
<td>v7</td>
<td>1</td>
<td>.200 .608 .408</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>.400 .876 .476</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>.600 .967 .367</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>.800 .990 .190</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1.000 1.000 .000</td>
</tr>
</tbody>
</table>

355
<table>
<thead>
<tr>
<th>Variable</th>
<th>Category</th>
<th>Fo (x)</th>
<th>Sn (x)</th>
<th>D-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>v8</td>
<td>1</td>
<td>.200</td>
<td>.272</td>
<td>.072</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>.400</td>
<td>.608</td>
<td>.208</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>.600</td>
<td>.872</td>
<td>.272</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>.800</td>
<td>.940</td>
<td>.140</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1.000</td>
<td>1.000</td>
<td>.000</td>
</tr>
<tr>
<td>v9</td>
<td>1</td>
<td>.200</td>
<td>.366</td>
<td>.166</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>.400</td>
<td>.687</td>
<td>.287</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>.600</td>
<td>.861</td>
<td>.261</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>.800</td>
<td>.986</td>
<td>.186</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1.000</td>
<td>1.000</td>
<td>.000</td>
</tr>
<tr>
<td>v10</td>
<td>1</td>
<td>.200</td>
<td>.400</td>
<td>.200</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>.400</td>
<td>.725</td>
<td>.325</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>.600</td>
<td>.887</td>
<td>.287</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>.800</td>
<td>.955</td>
<td>.155</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1.000</td>
<td>1.000</td>
<td>.000</td>
</tr>
<tr>
<td>v11</td>
<td>1</td>
<td>.200</td>
<td>.174</td>
<td>.026</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>.400</td>
<td>.359</td>
<td>.041</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>.600</td>
<td>.560</td>
<td>.040</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>.800</td>
<td>.775</td>
<td>.025</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1.000</td>
<td>1.000</td>
<td>.000</td>
</tr>
<tr>
<td>v12</td>
<td>1</td>
<td>.200</td>
<td>.434</td>
<td>.234</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>.400</td>
<td>.679</td>
<td>.279</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>.600</td>
<td>.921</td>
<td>.321</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>.800</td>
<td>.985</td>
<td>.185</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1.000</td>
<td>1.000</td>
<td>.000</td>
</tr>
<tr>
<td>v13</td>
<td>1</td>
<td>.200</td>
<td>.445</td>
<td>.245</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>.400</td>
<td>.728</td>
<td>.328</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>.600</td>
<td>.879</td>
<td>.279</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>.800</td>
<td>.947</td>
<td>.147</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1.000</td>
<td>1.000</td>
<td>.000</td>
</tr>
<tr>
<td>v14</td>
<td>1</td>
<td>.200</td>
<td>.140</td>
<td>.060</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>.400</td>
<td>.351</td>
<td>.049</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>.600</td>
<td>.596</td>
<td>.004</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>.800</td>
<td>.800</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1.000</td>
<td>1.000</td>
<td>.000</td>
</tr>
<tr>
<td>v15</td>
<td>1</td>
<td>.200</td>
<td>.257</td>
<td>.057</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>.400</td>
<td>.423</td>
<td>.023</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>.600</td>
<td>.695</td>
<td>.095</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>.800</td>
<td>.888</td>
<td>.088</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1.000</td>
<td>1.000</td>
<td>.000</td>
</tr>
<tr>
<td>Variable</td>
<td>Category</td>
<td>Fo (x) - Sn (x) = D-value</td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------</td>
<td>----------</td>
<td>--------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>v16</td>
<td>1</td>
<td>.200  .507  .307</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>.400  .786  .386</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>.600  .922  .322</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>.800  .979  .179</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1.000 1.000  .000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>v17</td>
<td>1</td>
<td>.200  .260  .060</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>.400  .449  .049</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>.600  .676  .076</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>.800  .857  .057</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1.000 1.000  .000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>v18</td>
<td>1</td>
<td>.200  .291  .091</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>.400  .616  .216</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>.600  .831  .231</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>.800  .937  .137</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1.000 1.000  .000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>v19</td>
<td>1</td>
<td>.200  .709  .509</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>.400  .898  .498</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>.600  .962  .362</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>.800  .988  .188</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1.000 1.000  .000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>v20</td>
<td>1</td>
<td>.200  .313  .113</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>.400  .528  .128</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>.600  .830  .230</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>.800  .917  .117</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1.000 1.000  .000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>v21</td>
<td>1</td>
<td>.200  .355  .155</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>.400  .680  .280</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>.600  .937  .337</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>.800  .975  .175</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1.000 1.000  .000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>v22</td>
<td>1</td>
<td>.200  .302  .102</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>.400  .532  .132</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>.600  .860  .260</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>.800  .947  .147</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1.000 1.000  .000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>v23</td>
<td>1</td>
<td>.200  .253  .053</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>.400  .502  .102</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>.600  .808  .208</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>.800  .944  .144</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1.000 1.000  .000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Variable</td>
<td>Category</td>
<td>$F_0(x) - S_n(x) = D$-value</td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------</td>
<td>----------</td>
<td>----------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>v24</td>
<td>1</td>
<td>.200 ( \cdot ) 283 ( \cdot ) 083</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>.400 ( \cdot ) 562 ( \cdot ) 162</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>.600 ( \cdot ) 853 ( \cdot ) 253</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>.800 ( \cdot ) 959 ( \cdot ) 159</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1.000 ( \cdot ) 1.000 ( \cdot ) 000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>v25</td>
<td>1</td>
<td>.200 ( \cdot ) 366 ( \cdot ) 166</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>.400 ( \cdot ) 623 ( \cdot ) 223</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>.600 ( \cdot ) 880 ( \cdot ) 280</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>.800 ( \cdot ) 952 ( \cdot ) 152</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1.000 ( \cdot ) 1.000 ( \cdot ) 000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>v26</td>
<td>1</td>
<td>.200 ( \cdot ) 309 ( \cdot ) 109</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>.400 ( \cdot ) 573 ( \cdot ) 173</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>.600 ( \cdot ) 815 ( \cdot ) 215</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>.800 ( \cdot ) 913 ( \cdot ) 113</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1.000 ( \cdot ) 1.000 ( \cdot ) 000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>v27</td>
<td>1</td>
<td>.200 ( \cdot ) 272 ( \cdot ) 072</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>.400 ( \cdot ) 604 ( \cdot ) 204</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>.600 ( \cdot ) 823 ( \cdot ) 223</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>.800 ( \cdot ) 932 ( \cdot ) 132</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1.000 ( \cdot ) 1.000 ( \cdot ) 000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>v28</td>
<td>1</td>
<td>.200 ( \cdot ) 362 ( \cdot ) 162</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>.400 ( \cdot ) 634 ( \cdot ) 234</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>.600 ( \cdot ) 876 ( \cdot ) 276</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>.800 ( \cdot ) 948 ( \cdot ) 148</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1.000 ( \cdot ) 1.000 ( \cdot ) 000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>v29</td>
<td>1</td>
<td>.200 ( \cdot ) 340 ( \cdot ) 140</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>.400 ( \cdot ) 634 ( \cdot ) 234</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>.600 ( \cdot ) 819 ( \cdot ) 219</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>.800 ( \cdot ) 917 ( \cdot ) 117</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1.000 ( \cdot ) 1.000 ( \cdot ) 000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>v30</td>
<td>1</td>
<td>.200 ( \cdot ) 279 ( \cdot ) 079</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>.400 ( \cdot ) 524 ( \cdot ) 124</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>.600 ( \cdot ) 807 ( \cdot ) 207</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>.800 ( \cdot ) 916 ( \cdot ) 116</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1.000 ( \cdot ) 1.000 ( \cdot ) 000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>v31</td>
<td>1</td>
<td>.200 ( \cdot ) 302 ( \cdot ) 102</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>.400 ( \cdot ) 544 ( \cdot ) 144</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>.600 ( \cdot ) 789 ( \cdot ) 189</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>.800 ( \cdot ) 876 ( \cdot ) 076</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1.000 ( \cdot ) 1.000 ( \cdot ) 000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Variable</td>
<td>Category</td>
<td>( F_0(x) )</td>
<td>( S_n(x) )</td>
<td>( D)-value</td>
</tr>
<tr>
<td>----------</td>
<td>----------</td>
<td>---------------</td>
<td>---------------</td>
<td>-------------</td>
</tr>
<tr>
<td>v32</td>
<td>1</td>
<td>.200</td>
<td>.313</td>
<td>.113</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>.400</td>
<td>.588</td>
<td>.188</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>.600</td>
<td>.814</td>
<td>.214</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>.800</td>
<td>.886</td>
<td>.086</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1.000</td>
<td>1.000</td>
<td>0.000</td>
</tr>
<tr>
<td>v33</td>
<td>1</td>
<td>.200</td>
<td>.472</td>
<td>.272</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>.400</td>
<td>.778</td>
<td>.378</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>.600</td>
<td>.940</td>
<td>.340</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>.800</td>
<td>.974</td>
<td>.174</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1.000</td>
<td>1.000</td>
<td>0.000</td>
</tr>
<tr>
<td>v34</td>
<td>1</td>
<td>.200</td>
<td>.506</td>
<td>.306</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>.400</td>
<td>.721</td>
<td>.321</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>.600</td>
<td>.876</td>
<td>.276</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>.800</td>
<td>.948</td>
<td>.148</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1.000</td>
<td>1.000</td>
<td>0.000</td>
</tr>
<tr>
<td>v35</td>
<td>1</td>
<td>.200</td>
<td>.611</td>
<td>.411</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>.400</td>
<td>.886</td>
<td>.486</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>.600</td>
<td>.977</td>
<td>.377</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>.800</td>
<td>.994</td>
<td>.194</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1.000</td>
<td>1.000</td>
<td>0.000</td>
</tr>
<tr>
<td>v36</td>
<td>1</td>
<td>.200</td>
<td>.528</td>
<td>.328</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>.400</td>
<td>.853</td>
<td>.453</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>.600</td>
<td>.974</td>
<td>.374</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>.800</td>
<td>.997</td>
<td>.197</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1.000</td>
<td>1.000</td>
<td>0.000</td>
</tr>
<tr>
<td>v37</td>
<td>1</td>
<td>.200</td>
<td>.438</td>
<td>.238</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>.400</td>
<td>.819</td>
<td>.419</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>.600</td>
<td>.947</td>
<td>.347</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>.800</td>
<td>.989</td>
<td>.189</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1.000</td>
<td>1.000</td>
<td>0.000</td>
</tr>
<tr>
<td>v38</td>
<td>1</td>
<td>.200</td>
<td>.423</td>
<td>.223</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>.400</td>
<td>.721</td>
<td>.321</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>.600</td>
<td>.902</td>
<td>.302</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>.800</td>
<td>.955</td>
<td>.155</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1.000</td>
<td>1.000</td>
<td>0.000</td>
</tr>
<tr>
<td>v39</td>
<td>1</td>
<td>.200</td>
<td>.362</td>
<td>.162</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>.400</td>
<td>.690</td>
<td>.290</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>.600</td>
<td>.860</td>
<td>.260</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>.800</td>
<td>.962</td>
<td>.162</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1.000</td>
<td>1.000</td>
<td>0.000</td>
</tr>
<tr>
<td>Variable</td>
<td>Category</td>
<td>Fo (x)</td>
<td>Sn (x)</td>
<td>D-value</td>
</tr>
<tr>
<td>----------</td>
<td>----------</td>
<td>---------</td>
<td>--------</td>
<td>----------</td>
</tr>
<tr>
<td>v40</td>
<td>1</td>
<td>.200</td>
<td>.415</td>
<td>.215</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>.400</td>
<td>.694</td>
<td>.294</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>.600</td>
<td>.890</td>
<td>.290</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>.800</td>
<td>.981</td>
<td>.181</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1.000</td>
<td>1.000</td>
<td>.000</td>
</tr>
<tr>
<td>v41</td>
<td>1</td>
<td>.200</td>
<td>.377</td>
<td>.177</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>.400</td>
<td>.736</td>
<td>.336</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>.600</td>
<td>.920</td>
<td>.320</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>.800</td>
<td>.984</td>
<td>.184</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1.000</td>
<td>1.000</td>
<td>.000</td>
</tr>
<tr>
<td>v42</td>
<td>1</td>
<td>.200</td>
<td>.419</td>
<td>.219</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>.400</td>
<td>.728</td>
<td>.328</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>.600</td>
<td>.856</td>
<td>.256</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>.800</td>
<td>.916</td>
<td>.116</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1.000</td>
<td>1.000</td>
<td>.000</td>
</tr>
<tr>
<td>v43</td>
<td>1</td>
<td>.200</td>
<td>.453</td>
<td>.253</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>.400</td>
<td>.774</td>
<td>.374</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>.600</td>
<td>.910</td>
<td>.310</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>.800</td>
<td>.970</td>
<td>.170</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1.000</td>
<td>1.000</td>
<td>.000</td>
</tr>
<tr>
<td>v44</td>
<td>1</td>
<td>.200</td>
<td>.513</td>
<td>.313</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>.400</td>
<td>.830</td>
<td>.430</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>.600</td>
<td>.943</td>
<td>.343</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>.800</td>
<td>.988</td>
<td>.188</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1.000</td>
<td>1.000</td>
<td>.000</td>
</tr>
<tr>
<td>v45</td>
<td>1</td>
<td>.200</td>
<td>.362</td>
<td>.162</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>.400</td>
<td>.668</td>
<td>.268</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>.600</td>
<td>.860</td>
<td>.260</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>.800</td>
<td>.954</td>
<td>.154</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1.000</td>
<td>1.000</td>
<td>.000</td>
</tr>
<tr>
<td>v46</td>
<td>1</td>
<td>.200</td>
<td>.517</td>
<td>.317</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>.400</td>
<td>.804</td>
<td>.404</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>.600</td>
<td>.951</td>
<td>.351</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>.800</td>
<td>.985</td>
<td>.185</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1.000</td>
<td>1.000</td>
<td>.000</td>
</tr>
<tr>
<td>v47</td>
<td>1</td>
<td>.200</td>
<td>.336</td>
<td>.136</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>.400</td>
<td>.589</td>
<td>.189</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>.600</td>
<td>.831</td>
<td>.231</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>.800</td>
<td>.944</td>
<td>.144</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1.000</td>
<td>1.000</td>
<td>.000</td>
</tr>
<tr>
<td>Variable</td>
<td>Category</td>
<td>Fo (x) - Sn (x) = D-value</td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------</td>
<td>----------</td>
<td>--------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>v48</td>
<td>1</td>
<td>.200 .362 .162</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>.400 .682 .282</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>.600 .883 .283</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>.800 .936 .136</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1.000 1.000 .000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>v49</td>
<td>1</td>
<td>.200 .370 .170</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>.400 .649 .249</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>.600 .845 .245</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>.800 .951 .151</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1.000 1.000 .000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>v50</td>
<td>1</td>
<td>.200 .626 .426</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>.400 .852 .452</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>.600 .950 .350</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>.800 .976 .176</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1.000 1.000 .000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>v51</td>
<td>1</td>
<td>.200 .415 .215</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>.400 .751 .351</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>.600 .817 .217</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>.800 .874 .074</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1.000 1.000 .000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>v52</td>
<td>1</td>
<td>.200 .366 .166</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>.400 .619 .219</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>.600 .830 .230</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>.800 .913 .113</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1.000 1.000 .000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>v53</td>
<td>1</td>
<td>.200 .215 .015</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>.400 .547 .147</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>.600 .762 .162</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>.800 .905 .105</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1.000 1.000 .000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>v54</td>
<td>1</td>
<td>.200 .264 .064</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>.400 .558 .158</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>.600 .807 .207</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>.800 .909 .109</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1.000 1.000 .000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>v55</td>
<td>1</td>
<td>.200 .223 .023</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>.400 .532 .132</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>.600 .804 .204</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>.800 .917 .117</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1.000 1.000 .000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Variable</td>
<td>Category</td>
<td>Fo (x) - Sn (x) = D-value</td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------</td>
<td>----------</td>
<td>--------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>v56</td>
<td>1</td>
<td>.200 .192 .008</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>.400 .494 .094</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>.600 .781 .181</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>.800 .936 .136</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1.000 1.000 .000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>v57</td>
<td>1</td>
<td>.200 .370 .170</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>.400 .789 .389</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>.600 .955 .355</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>.800 .985 .185</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1.000 1.000 .000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>v58</td>
<td>1</td>
<td>.200 .366 .166</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>.400 .664 .264</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>.600 .853 .253</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>.800 .913 .113</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1.000 1.000 .000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>v59</td>
<td>1</td>
<td>.200 .279 .079</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>.400 .604 .204</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>.600 .823 .223</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>.800 .944 .144</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1.000 1.000 .000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>v60</td>
<td>1</td>
<td>.200 .479 .279</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>.400 .792 .392</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>.600 .924 .324</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>.800 .954 .154</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1.000 1.000 .000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX (C)

THE COMPLETE ROTATED FACTOR MATRIX
### Exhibit 3.1 (continued)

<table>
<thead>
<tr>
<th>RESEARCHER</th>
<th>FOCUS OF STUDY</th>
<th>METHODOLOGY</th>
<th>MAIN FINDINGS</th>
<th>LIMITATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goodfellow</td>
<td>Defining the savings market in consumer or demand-oriented terms.</td>
<td>Qualitative research</td>
<td>Respondents viewed “savings” and “investment” as they were both terms for money which is not spent. Life cycle stage was a significant factor in influencing attitudes and behaviour of consumers. The most apparent difference is between two groups of consumers “spenders” and “savers”.</td>
<td>Qualitative research based upon small sample not necessarily representative of the target population and lacks the reliability and stability of large-scale quantified research.</td>
</tr>
<tr>
<td>Nrol and El-Bdour</td>
<td>Investigating attitudes of bank customers towards Islamic banks in Jordan.</td>
<td>Percentages, T-test and Factor Analysis</td>
<td>Religious motives did not stand out as being the only major significant motive for selecting an Islamic bank. Bank customers were profit motivated. New branches have important role in increasing the utilisation of services provided by Islamic banks.</td>
<td>No mention was made to the role of competition between traditional commercial banks and the relatively newly established Islamic banks.</td>
</tr>
<tr>
<td>Kaynak, Kucukemiroglu &amp; Odabasi</td>
<td>Investigating commercial bank selection in Turkey.</td>
<td>Multivariate Analysis of Variance &amp; Factor Analysis</td>
<td>Sex and age of respondents were significant factors in influencing consumers’ bank selection. There were differences between frequent and infrequent bank customers in terms of their attitudes and demographic and socio-economic characteristics.</td>
<td>The size of the sample was not large enough especially because non-response rate and response errors reduced the actual number of participants to answer the questions included in the questionnaire.</td>
</tr>
<tr>
<td>Source</td>
<td>Methodology and Findings</td>
<td>Further Notes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Goudge &amp; Green</td>
<td>Examining the role and contribution of market research had played in the development and launch of saving accounts for children.</td>
<td>The research was qualitative and based only on group discussions.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1980) The UK</td>
<td>Qualitative research</td>
<td>There was no prepared list of questions before and during the discussions.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>No statistical analysis was carried out.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Langrehr</td>
<td>Investigating the competition between banks and S&amp;Ls for savings and the criteria for consumers to select between them between 1980 to 1983.</td>
<td>Using the same sample and the same list of questions over two periods has some disadvantages such as time consuming, costly and can be affected by other social and economical changes.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1980) The USA</td>
<td>Percentages &amp; Chi-square test</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alessandra,</td>
<td>Providing some insights into the banking behaviour of consumers in terms of their age focusing on older consumers.</td>
<td>The original sample contained all age groups therefore only 11% rate of response was achieved. No advanced statistical methods of data analysis were used.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knierim &amp;</td>
<td>Simple ranking of importance according to percentages</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yavas (1986)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The USA</td>
<td>Older consumers were reluctant to use the modern banking technology and their were conservative towards bank innovations. Also, they preferred banking services provided to them in their local area.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rynak &amp; Yavas</td>
<td>Extending the application of usage rate of a service as a method for segmenting the market (frequent vs. infrequent users).</td>
<td>The overall sample was small (250 respondents) in particular the subsample of frequent users (only 58 respondents). The findings did not mention the interaction between the demographic variables and the dependent variable, i.e., the usage rate.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1986) Canada</td>
<td>The T-Test</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Researcher</td>
<td>Focus of Study</td>
<td>Methodology</td>
<td>Main Findings</td>
<td>Limitations</td>
</tr>
<tr>
<td>---------------------</td>
<td>-------------------------------------------------------------------------------</td>
<td>-------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Mason &amp; Mayer (1974)</td>
<td>Determining consumers' reasons for maintaining checking accounts with banks and savings accounts with banks, S&amp;Ls and Credit Unions.</td>
<td>Percentages</td>
<td>Convenience of location was the prime reason for maintaining a checking account with a bank. Convenience of location and having a checking account at the bank were the prime reason for maintaining a savings account at the bank. Favourable interest on savings was the prime reason for maintaining a savings account at S&amp;Ls and Credit Unions.</td>
<td>The study lacks using statistical methods of data analysis to provide statistically tested results.</td>
</tr>
<tr>
<td>Reynolds &amp; Wells (1978)</td>
<td>Investigating the life style of three groups of consumers: non-savers, infrequent savers, frequent savers.</td>
<td>Percentages</td>
<td>The life style of frequent savers is different in comparison with non-savers and infrequent savers. The importance of life style analysis in providing better understanding for bank consumers' behaviour was underlined.</td>
<td>Little information was given about the life style of non-savers and infrequent savers. The sample consisted of males, i.e., females were excluded from the analysis. The study lacks more reliable statistical methods of analysis.</td>
</tr>
<tr>
<td>Arora, Cavusgil &amp; Navin (1985)</td>
<td>Examining a number of factors which are important in the choice of a financial institution (banks &amp; S&amp;Ls).</td>
<td>Factor Analysis &amp; Factor Congruency</td>
<td>The findings indicated that seven common factors influencing the choice of banks and S&amp;L institutions are: dependability of institution, convenience, variety of services, accessibility, convenience of non-person banking, availability of loans and interest competitive.</td>
<td>The response rate was very low 31% of the original sample. Factor congruencies were calculated manually due to lack of computer programme for calculating them at that time.</td>
</tr>
</tbody>
</table>
### Exhibit 3.1: Summary of Previous Research Publications Related to Consumers’ Saving Behaviour.

<table>
<thead>
<tr>
<th>RESEARCHER</th>
<th>FOCUS OF STUDY</th>
<th>METHODOLOGY</th>
<th>MAIN FINDINGS</th>
<th>LIMITATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Claycamp (1965) The USA</td>
<td>Identifying the differences between savers with Commercial Banks/ Savings and Loan institutions/ with both.</td>
<td>Discriminant Analysis</td>
<td>Socio-economic variables (except age) were of little value in discriminating between groups. Differences existed between the groups in terms of their psychological characteristics. Savings motives were not important as discriminators.</td>
<td>Later studies indicated that both socio-economic characteristics and motivations were of significant importance in discriminating between different groups. The sample contained only holders of savings accounts.</td>
</tr>
<tr>
<td>Martin (1967) The USA</td>
<td>Searching for predictive factors related to savings inflow in S&amp;L institutions.</td>
<td>Regression Analysis</td>
<td>The independent variables no. of competitors, consumers aged 65 and over and population growth were positively related to annual savings inflow. Economic and demographic variables of consumers were positively related to annual savings inflow.</td>
<td>The study did not investigate the influence of consumers’ perceptions and motivations on annual savings inflow. The study did not explain the relationship between annual savings inflow and offices' area economic and demographic attributes.</td>
</tr>
<tr>
<td>Allaire (1972) Canada</td>
<td>Investigating the reasons behind the selection of a financial institution to deposit at it.</td>
<td>Percentages</td>
<td>Convenience in terms of location and time was the prime reason for the selection of a bank and received 48.8% of the rate of importance. Other variables such as higher rate of interest, security and familiarity with the bank received also high rates of importance.</td>
<td>The study lacks using statistical methods of data analysis to provide statistically tested results.</td>
</tr>
</tbody>
</table>