١٣٢٤٩

١٠٣٩٦٦

# MASTER'S THESIS

# Relationship Portfolio Management

## Case of corporate banking

**Supervisors:**
Dr. Amir Albadvi
Dr. Peter Naude

۱۳۸۷/۲/ ۵

**Referees:**
Dr. Mohammad Aghdasi
Dr. Mohammad Reza Amin Naseri


**Prepared by:**
Hoda Talebi

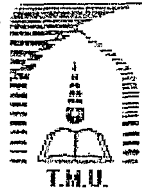
Tarbiat Modares University, Faculty of Engineering
Department Industrial Engineering

Lulea University of Technology, Department of Business Administration and Social Sciences
Division of Industrial Marketing and E-Commerce


MSc PROGRAM IN MARKETING AND ELECTRONIC COMMERCE Joint

2007

۱۰۴۹۷۷




TARBIAT MODARES UNIVERSITY
ENGINEERING FACULTY

# CERTIFICATION OF BOARD OF EXAMINERS

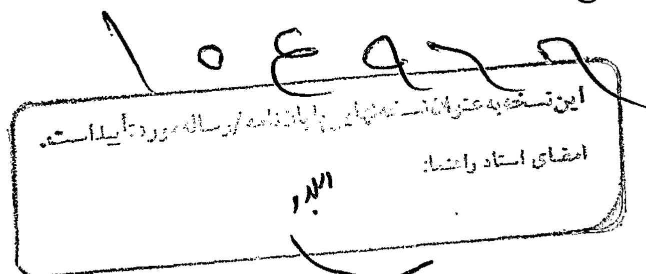
The undersigned boards of examiners hereby, certify that
**Ms. Hoda Talebi**
Candidate for the degree of Master of Science in Marketing and E-commerce (The Joint Master Program between Luleå University of Technology and Tarbiat Modares University) has successfully defended this thesis entitled

**Relationship Portfolio Management**
**Case of Corporate Banking**

The board considers the thesis acceptable in form and content; and that candidate through that oral examination, held on April, 30, 2007, demonstrated a satisfactory knowledge of the field covered by the thesis.

The Examining Body

| | |
|---|---|
| Supervisor: | Dr. Albadvi |
| Supervisor: | Dr. Naude' |
| Internal Examiner 1: | Dr. Aghdasi |
| Internal Examiner 2: | Dr. AminNaseri |
| Program Director: | Dr. Albadvi |
| External Examiner: | Dr. Salehi Sangari |



# Abstract

After about three decades, it is a few years that Iranian banking industry is about to experience a more competitive market by the entrance of private banks to the market. Objective of a bank can be expressed by the optimized resource allocation between different customers. For achieving this objective, a very first step is defining a framework that can distinguish between different categories of customers. For developing such a framework, three main areas were identified within literature. These three areas include Relationship Portfolio Models, Network Theory and Business Banking Relationships. After reviewing these three areas an initial model was extracted that was examined by several interviews with banking experts in Parsian Bank, Iran. After finalizing the model, a small sample group of corporate customers were chosen and the relevant data were gathered. By using the MCDM (Multi-Criteria Decision Making) technique of PROMETHEE this customers were ranked based on the variables and their relevant indicators that were identified.


# Keywords

Banking, Relationship management, Network theory, Business-to-business marketing, Corporate banking

# Table of Contents


**List of Tables** .......... **4**
**List of Figures** .......... **6**
**Chapter 1: Introduction** .......... **7**
1.1 Research Objective .......... 8
1.2 Research Design .......... 9
1.3 Contributions .......... 9
1.4 Structure of the Thesis .......... 9
**Chapter 2: Literature Review** .......... **11**
2.1 Relationship Management .......... 12
2.1.1 Relationship Management Tools .......... 14
2.1.2 Portfolio Theory .......... 15
2.1.3 Marketing Portfolio Models .......... 18
2.1.4 Customer Portfolio Models .......... 19
2.2 Network Theory .......... 32
2.2.1 Network Portfolio Models .......... 35
2.3 Business Banking Relationships .......... 39
2.4 Initial Model .......... 51
**Chapter 3: Research Design** .......... **68**
3.1 Research Approach .......... 70
3.2 Research Purpose .......... 71
3.3 Research Strategy .......... 73
3.4 Data Collection .......... 76
3.4.1 Collecting Primary Data Using Semi-Structured Interviews .......... 76
3.4.2 Sampling .......... 78
3.4.3 Validity and Genralizability .......... 81
3.4.4 Reliability .......... 82
3.4.5 Collecting Secondary Data .......... 82
**Chapter 4: Data Analysis and Results** .......... **83**
4.1 Exploratory Study .......... 83
4.1.1 Interviewees Characteristics .......... 84
4.1.2 Qualitative Analytical Procedure .......... 86
**Chapter 5: Conclusions and Implications** .......... **107**
5.1 Conclusions .......... 108
5.2 Descriptive Analysis .......... 114
5.3 Contributions .......... 119
5.3.1 Theoretical Contribution .......... 119
5.3.2 Methodological Contribution .......... 120
5.4. Managerial Implications .......... 120
5.5 Limitations .......... 120
5.6 Further Research .......... 121
**References** .......... **122**

# List of Tables


Table 2.1: Summary of Some of the Important Customer Portfolio Models ....... 25
Table 2.2: Marketing Financial Services to Businesses ............................... 43
Table 2.3: Indicators of Customer's Business Attractiveness ....................... 53
Table 2.4: Indicators of Strategic Importance of the Account ...................... 57
Table 2.5: Indicators of Complexity and Difficulty of Managing the Account ..... 60
Table 2.6: Indicators of Relative Stage of the Present Buyer-Seller Relationship ... 63
Table 3.1: Uses of Different Types of Interview ........................................ 78
Table 4.1: Distribution of Different Interviewees ..................................... 87
Table 4.2: Interviewees Opinions about the Indicators of Customer's Business Attractiveness ............................................................ 88
Table 4.3: Some Points about Indicators of Customer's Business Attractiveness..... 91
Table 4.4: Additional Points about Customer's Business Attractiveness ............. 95
Table 4.5: Interviewees Opinions about the Indicators of Strategic Importance of the Customer ............................................................ 97
Table 4.6: Some Points about Indicators of Strategic Importance of the Customer .. 98
Table 4.7: Additional Points about Strategic Importance of the Customer .......... 99
Table 4.8: Interviewees Opinions about the Indicators of Complexity and Difficulty of Managing the Account ................................................ 100
Table 4.9: Some Points about Indicators of Difficulty of Managing each Customer.. 101
Table 4.10: Additional Points about Difficulty of Managing each Customer ....... 103
Table 4.11: Interviewees Opinions about the Indicators of Relative Stage of the Present Buyer/Seller Relationship ........................................ 103
Table 4.12: Some Points about Indicators of Relative Stage of the Present Buyer/Seller Relationship ................................................ 105
Table 4.13: Additional Points about Relative Stage of the Present Buyer/Seller Relationship ............................................................ 107
Table 5.1: Finalized Indicators of Customer's Business Attractiveness ............. 108
Table 5.2: Finalized Indicators of Strategic Importance of the Customer ........... 110
Table 5.3: Finalized Indicators of Complexity and Difficulty of Managing each Customer ............................................................ 111
Table 5.4: Finalized Indicators of Relative Stage of the Present Buyer/Seller Relationship ............................................................ 112

# List of Figures

Figure 1.1: Structure of the Thesis ........ 9
Figure 2.1: Evolution of Portfolio Models ........ 15
Figure 3.1: Forms of Qualitative Interview ........ 78
Figure 3.2: Sampling Techniques ........ 80
Figure 4.1: Organizational Chart of Parsian Bank ........ 85
Figure 5.1: Data Entry to the Model for a Sample of Customers ........ 116
Figure 5.3: Complete Ranking of the Sample Data ........ 117
Figure 5.2: Partial Ranking of the Sample Data ........ 117
Figure 5.4: GAIA Plane of the Sample Data ........ 118
Figure 5.5: Stability Intervals ........ 119

# Chapter 1

# Introduction

## 1. Introduction

*After the Islamic Revolution in 1979, all Iranian banks became nationalized. In 2001, the Iranian banking market was re-opened to the private sector. Entry of private banks made the market more competitive and growing. Reports of the Central Bank of I.R. Iran reveal enormous growth in terms of total assets of banks and their loan receivables from private sector, banks' capital and developing legal and contingency reserves to improve capital adequacy ratio and developing operations, deposits of whole banking industry and loan receivable balances of the whole industry. At the same time, entry of foreign banks to the banking market of Iran is not that far while nationalization and lack of competition for over two decades, having limited interactions with global banking market and different sanctions being imposed on Iran during*

*last three decades have weakened the Iranian banking industry. These weaknesses will cause serious problems for Iranian banks encountering their strong foreign competitors and the growing banking market in the country; Iranian banks should become ready for the coming competitive environment. Developing competitive tools which consider the special characteristics of Iranian banking market seems essential for Iranian banks. One of these competitive tools is accurate frameworks and models that can help banks to discriminate between different groups of their corporate customers and allocate their resources to an optimal combination of these customers.*

## 1.1 Research Objective

The focus of this study is on classifying corporate customers in Iranian corporate banking environment and aims to present a model that enables bank managers to classify their corporate customers into an optimal combination. So the defined objective for this research project can be formulated as:

> *Developing a model for classifying relationships between corporate banks and their customers in an optimized way with the consideration of Network Approach*

For achieving this aim, three main areas of literature have been identified as Relationship Portfolio Management, Network Theory and Business Banking Relationships which will be explored through chapter two and lead to an initial model. This model will be examined and validated by a series of semi-structured interviews with banking experts.

## 1.2 Research Design

This research project will follow the inductive approach for doing an exploratory study. The data collection technique that will be used is qualitative semi-structured interviews for performing a case study in a selected bank (Parsian Bank, Iran). The sample of interviewees is chosen on a non-probability basis and in a purposive

manner within banking experts whose activities are related to corporate banking or have the relevant knowledge.

## 1.3 Contributions

This study contributes to both theory and practice. The findings will help to the development of the theoretical constructs of a framework for categorizing corporate customers of a bank while at the same time provide guidelines for Iranian bank managers to allocate their limited resources in an optimal way.

## 1.4 Structure of the Thesis

This thesis consists of five chapters, as shown in Figure 1.1. In this chapter an introduction to the research was given and the research objective was clarified. In the second chapter, the relevant theoretical areas and literature is presented. In the third chapter, the research design appropriate for achieving the defined objective is being explored. In the fourth chapter, the data is being analyzed and finally, in chapter five, conclusions as well as contributions and implications in addition to recommendations for further research are being brought up.

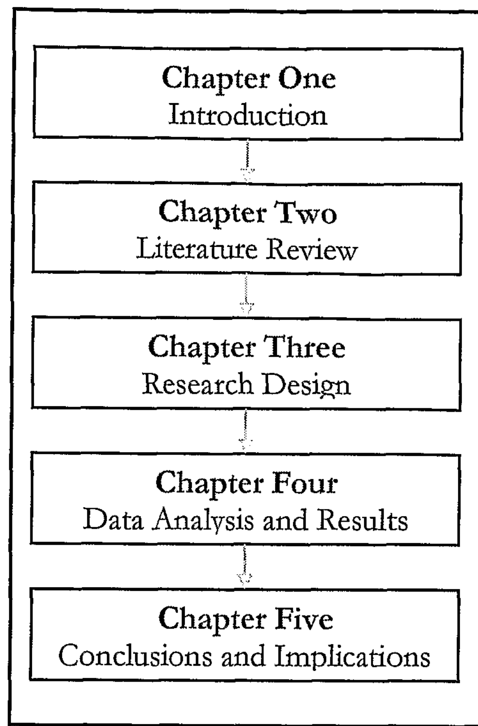



**Figure 1.1:** Structure of the Thesis

# Chapter 2

# Literature Review

## *2. Literature Review*

*The research objective of this thesis is developing a Portfolio Model in the context of Iranian corporate banking with the aim of categorizing corporate customers of a bank in an optimal way to make the maximum use of the limited resources of the bank.*

*Three main areas of literature related to the topic of this research have been identified. These areas include Relationship Portfolio Models, Network Theory and Business Banking Relationships. These three fields are being investigated in coming sections of this chapter.*

## 2.1 Relationship Management

The main field of this research is *Industrial Marketing* and the focus is being on the concept of *Relationship Management* in business markets in general and corporate banking in particular.

The concept of *Relationship Management* and the fact that all interactions between companies are not purely transaction-based was developed by the European IMP Research Group (Hakansson, 1982); since then, customer and supplier relationships have attracted a great deal of attention from a wide range of perspectives, including business-to-business marketing (Dwyer et al., 1987, Ford, 1990, Ford, 1997, Ford, 1998, Frazier et al., 1988, Gummesson, 1987, Gummesson, 1999, Hakansson, 1982, Möller and Wilson, 1995, Morgan and Hunt, 1994, Turnbull and Valla, 1986). It has been argued that *relationship management* is as important to marketing management as manipulating the marketing mix (Hakansson, 1982, Pick, 1999, Turnbull and Cunningham, 1981); it is important to all parties involved - buyers, sellers and any intermediaries (i.e. the network) (Zolkiewski and Turnbull, 2002), and both individually and collectively is the most critical marketing challenge, particularly in a business-to-business situation because:

- In general, customers and suppliers are often an organization's greatest asset (Zolkiewski and Turnbull, 2002, Campbell and Cunningham, 1983a).
- In business markets, firms are often reliant on a small number of customers and suppliers (Cunningham, 1982, Cunningham and Homse, 1982) and industrial concentration is high in many industrial markets (Zolkiewski and Turnbull, 2002, Campbell and Cunningham, 1983a).
- In business-to-business situations, markets are relatively static and maintaining existing relationships is often essential to on-going business success (Ford et al., 1998).
- In mature markets it is often difficult to gain new customers (consequently lost business cannot be easily replaced) (Zolkiewski and Turnbull, 2002, Campbell and Cunningham, 1983a).
- Understanding customers' needs and/or suppliers' capabilities aids new product development and innovation (Campbell and Cunningham, 1983b).

- Choosing the right supplier relationships will give next-generational competitive advantage (Sheth and Sharma, 1997).

An implicit assumption, however, of much of the works about *Relationship Management* is that having "strong" customer or supplier relationships is necessarily "good". When this assumption is stated explicitly it is immediately and obviously not so - as any production, sales or customer account manager knows (Zolkiewski and Turnbull, 2002). On the other hand, according to Leek, Turnbull and Naude, the findings indicate that the great majority of companies have some form of relationship management system but of varying degrees of formality. Formal documented systems, personal judgment and meetings are the most likely methods to be used for managing relationships. A formal documented system provides a relatively objective view of the relationship which takes into account variables such as sales volume, profitability and etc. Suppliers use it to assess the sales and profitability of their relationships whereas buyers use it to assess technological competence, capability and innovativeness of their suppliers. Personal judgment takes into account the subjective relationship variables and the contextual variables such as relationship atmosphere, the importance of the relationship, company level variables, business environment variables and a number of additional intangible factors. Meetings allow the individuals to discuss problematic relationships and exchange information they have obtained from the use of the formal documented system and their own judgment. These are often used concurrently to enable information to be gathered from a variety of sources. The emphasis on each method differs between suppliers and buyers. Buyers generally found formal, documented systems and personal judgment more useful than suppliers who preferred meetings. Buyers may find it easier to implement a formal, documented system, as they have a number of objective and even quantifiable purchasing criteria that their suppliers have to meet. The suppliers' situation is more complex; they have to satisfy both their customers' needs and their own needs (Leek et al., 2002).

In the current study, *Relationship Management* is perceived as the process of efficiently and effectively allocating resources to different kinds of relationships (Leek et al., 2004) and the main purpose of this thesis is creating a model including both of objective and subjective variables for segmenting, categorizing and managing relationships with current and potential corporate customers of Iranian banks in an efficient and effective way. In the first part, different relationship management tools are being explored and the most suitable tool for achieving the defined purpose of this research project is being selected and looked at in the second and third parts.

### 2.1.1 Relationship Management Tools

There are different relationship management tools such as *Customer Relationship Management (CRM)*, *Key Account Management* and *Portfolio Analysis* (Leek et al., 2002). *CRM* has been recently became popular in consumer retail markets while many practitioners are now operationalizing the concept of *Key Account Management* in different business contexts including banking. Yet the selection of key accounts, preferred suppliers and key relationships can be problematic and this is where *Portfolio Analysis* and *Portfolio Management* make a major contribution to management (Zolkiewski and Turnbull, 2002).

Among different aspects of relationship management, two themes of research are critically reviewed in this research: the first theme is Relationship Management in the context of *Portfolio Analysis* and the second one is the concept of *Relationship Networks*.

### 2.1.2 Portfolio Theory

The central tenet of *Portfolio Approach* is to enable managers to refocus from a product orientation towards a customer orientation and thus to invest their resources in the most efficient and effective way (Zolkiewski and Turnbull, 2002). Turnbull states that *Portfolio Concept* is a useful management tool for enforcing a discipline in the allocation of the company's limited resources to an optimal combination of business operations which will maximize long-term returns at a given levels of risks (Turnbull, 1990); Clearly, new and developing relationships will require different resource inputs compared to mature or declining relationships (Ford, 1980).

In addition to resource allocation question, a *Portfolio Analysis* can also act as an important source of knowledge about customers and suppliers. Thus, the portfolio models can provide a framework for relationship management at both the macro/strategic level - planning the acquisition and development of new relationships and micro/tactical (operational) level -efficient management of the existing portfolios (Turnbull and Valla, 1986, Zolkiewski and Turnbull, 2002). In other words, all portfolio models claim that they will help managers to manage their current and potential customers optimally. In short, it could be said that *Portfolio Analysis* gives answers to these questions (Zolkiewski and Turnbull, 2002):

- Do new relationships need to be created?
- Which relationships should be developed?
- Which maintained?
- Are there any that should be broken/discarded?

The development of customer and supplier portfolio models has, to date, largely been related to business-to-business markets. This is probably because of the small number of players in such markets (Zolkiewski and Turnbull, 2002); it is common for a firm serving business markets to be highly dependent on a small number of customers (Turnbull and Cunningham, 1981). Therefore, the addition or loss of a major customer or supplier can have dramatic effects on the company's turnover, profitability and its viability. In such circumstances, *Portfolio*

*Analysis* can act as a very useful tool by identifying key strategic relationships (Zolkiewski and Turnbull, 2002).

*Portfolio Theory* was first developed to be used in financial investment decision-making during the 1950s (Markowitz, 1952) as a mechanism for reducing risk (see Figure 2.1 for the evolution of *Portfolio Theory*). The main inputs for portfolio evaluation in financial investment decisions were postulated as being "expected return" and "degree of risk". Markowitz's point of departure was that rational investors will (or should) select portfolios which maximize the individual investor's utilities by maximizing the expected return for a given level of risk or minimizing the risk for a given level of expected return. It was further refined in the 1960s by Sharpe (Sharpe, 1963), who suggested that the risk of an individual investment should not be seen in isolation, rather it should be viewed in terms of how it contributes to the overall balance and performance of an investment portfolio. It follows from this that risk can be decreased (and ultimately eliminated) by holding a widely diversified portfolio of securities (see (Yorke, 1984), for a detailed discussion).

Although the portfolio concept put forth by Markowitz was an instrument for the management of equity investments, the concept has been recognized to have viable applicability in other fields (Turnbull, 1990). *Portfolio Theory* has since been applied in areas other than finance.

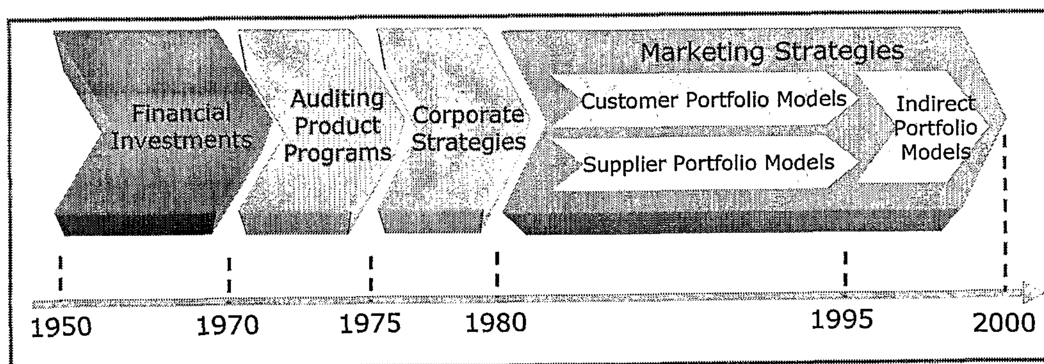



**Figure 2.1:** Evolution of Portfolio Models

The next area of application of *Portfolio Theory* was in auditing product programs, where individual products or groups of products were analyzed in terms of their current and future market share, sales, volume, costs and investment requirements (Marvin, 1972, Henderson, 1970).

Subsequently, the *Portfolio Approach* received increasing attention from corporate strategists (Abell and Hammond, 1979, Ansoff and Leontiades, 1976, BCG, 1968, Hedley, 1977, Hofer and Schendell, 1978, Wind and Douglas, 1981) all of whom have been primarily concerned with the classification of products and/or businesses on certain key dimensions in order to assist in the achievement of corporate strategic objectives used by a wide range of multi-product, diversified organizations (see (Turnbull, 1990) for a detailed discussion). Key dimensions have included market share, market growth, market attractiveness and competitive position depending on which model has been offered. Regardless of the dimensions used, the basic idea is that the positions of the units on the grid should determine the formulation of the most appropriate strategy.

The next application of *Portfolio Theory* was in marketing planning and communication as differentiated selling/purchasing behavior (Dubois and Pederson, 2002). During last two decades, there has been a steady flow of research concerning academic portfolio models in this field (Bensaou, 1999, Campbell and Cunningham, 1983a, Canning, 1982, Cunningham, 1982, Cunningham and Homse, 1982, Dickson, 1983, Dubinsky, 1986, Dubinsky and Ingram, 1984, Fiocca, 1982, Gelderman and Van Weele, 2001, Gelderman and Van Weele, 2003, Gelderman and Weele, 2000, Kraljic, 1983, Krapfel et al., 1991, LaForge and Cravens, 1982, Olsen and Ellram, 1997, Rangan et al., 1992, Shapiro et al., 1987, Turnbull and Zolkiewski, 1997, Van Stekelenborg and Kornelius, 1994, Wynstra and Pierik, 2000, Yorke, 1984, Yorke and Droussiotis, 1994, Zolkiewski and Turnbull, 2002). Application of *Portfolio Theory* in marketing is specifically addressing the allocation of resources to both channels of supply and distribution (i.e. suppliers and customers) (Zolkiewski and Turnbull, 2002).

Models in this area consist of three main categories:

1. Customer portfolio models
2. Supplier (purchasing) portfolio models
3. Indirect portfolio models (network models)

In theory, marketers can check the basic soundness of each customer or supplier against its position on the portfolio grid. In addition, they can assess the mix and balance of these customers/suppliers and whether they are likely to meet marketing objectives. *Portfolio Analysis* can therefore enhance and promote marketing planning and communication (Yorke and Droussiotis, 1994).

In overall, *Portfolio Theory* is essentially concerned with facilitating interdependent decisions (Wind and Douglas, 1981) in the allocation of finite resources (human, technical and financial (Zolkiewski and Turnbull, 2002)) among different assets, be it financial investments, products or strategic business units or marketing issues (Yorke and Droussiotis, 1994).

In coming section, marketing portfolio models are being explored in depth.

### 2.1.3 Marketing Portfolio Models

Since 1982, a variety of 2D and 3D *Marketing Portfolio Models* have been specifically developed to address customer and supplier relationship management utilizing single, two or three-step analysis phases with differing numbers of relationship categories being created. The models not only differ in the variables they use but also in their construction which consequently leads to differing numbers of relationship categories being created; for example Turnbull and Zolkiewski's model identifies eight categories of relationships (Turnbull and Zolkiewski, 1997) while both Shapiro et al's model and Krapfel et al's model produce four types of relationship (Krapfel et al., 1991, Shapiro et al., 1987).

As it was mentioned earlier, these models can be divided into customer portfolio models, supplier portfolio models and indirect portfolio models (network models). Most of these models have taken the dyadic relationship as the unit of analysis and are based, at least implicitly, on an understanding that long-term, interactive relationships are often the norm in business-to-business markets (Zolkiewski and Turnbull, 2002). The principle objective of these models is to categorize the relationships in order to enable the managers to determine a strategy for improving their business, but only a few of the models (Krapfel et al., 1991, Olsen and Ellram, 1997, Shapiro et al., 1987) provide any guidance on what to do with the information that results from carrying out the *Portfolio Analysis*. The action plans suggested by the models are inevitably vague as without the details of a specific company, its aims and its relationships it is impossible for academics to devise models that provide prescriptive advice (Leek et al., 2002).

An important question that managers need to address is which model is appropriate and at which level of their business should they be applied: SBU, market segment or individual customers and/or suppliers (Zolkiewski and Turnbull, 2002)? For answering these questions within the defined boundaries of this research, customer portfolio models are being investigated in the coming section and indirect portfolio models will be investigated after discussing about *Network Theory*.

### 2.1.4 Customer Portfolio Models

As mentioned before, the main focus of this research project is the relationship between banks and their corporate clients, so the emphasis of this part is being on *Customer Portfolio Models*.

Since the customer becomes the core of the analysis in industrial marketing strategy, it can be convenient for the selling company to divide its business among accounts, rather than among products or product lines (Fiocca,