

CHAPTER I

RESEARCH DESIGN

Introduction :

As a small country, little endowed with natural resources, Jordan has many economic problems to solve. Unemployment and continuing balance of trade deficits are not the only problems but they are the most important ones and need an urgent attention. The country depends to a great extent on foreign aid and loans, as government revenues from local resources are not sufficient to meet its current expenditures. The proceeds of foreign aid are used first to fill this gap, what remains can be used for development purposes.

Fluctuations in the flow of foreign funds, however have resulted in incomplete implementation of developmental projects. Therefore, bank lending plays a vital role in the development of the Jordanian economy.

The Historical Development of the Banking System in Jordan

Until 1949, the banking system in Jordan was dominated by Foreign banks, mainly British. This was mainly due to the British mandate over many of the Middle Eastern Countries including Jordan and Palestine. The first commercial bank to start operations in Jordan (Trans - Jordan Emirate at that time) was the Ottoman Bank in 1925. It was followed by the Arab Bank which opened its first branch in Amman in 1934 and

after cessation of Arab-Israeli hostilities in 1948, moved its head office to Amman in 1949, thus forming the nucleus of indigenous commercial banking in Jordan.

The next Jordanian bank to start operations was the Jordan National Bank in 1955. It was followed in 1960 by two Jordanian banks. The Bank of Jordan and the Cairo-Amman Bank.

Of the five Jordanian banks, two have 41 bank branch offices operating outside the country. The Arab Bank alone has 38 and the Jordan National Bank has 3 bank offices.

The Jordanian banking system includes a variety of institutions which can be placed under three main categories.

- The Central Bank of Jordan.
- The Commercial Banks.
- The specialised credit Institutions.

BANK LENDING :

The commercial banks always try to increase their deposits through the accumulation of private saving. The deposits are the main source of bank lending. The commercial banks generally avoid providing long term capital for developmental projects. The banks find it difficult to transform this type of investment into liquid assets to meet the immediate demand. The banks avoid lending to small scale farming activities. Such activities are spread in remote areas. Moreover, these enterprises are subject to

weather conditions, diseases and natural hazards. Thus, Commercial Banks have preference to finance trade and construction activities. This business is concentrated in urban areas.

The Central Bank of Jordan is persuading the commercial banks to participate in syndicate loans to agriculture and industry. This type of joint endeavour in bank lending helps the commercial banks to minimise their risks. In fact, the risk of lending is spread among participating banks.

The commercial banks hesitate to lend to agriculture, due to several reasons. First, the units of cultivation are small. As a result, it increases the administrative, supervision and operational cost of lending. Second, the bankers are not aware about farming conditions, output, incomes and the repaying capacity of the farmers. Third, the agricultural output depends on uncertain rainfall and weather conditions. This increases the risk of lending to the farmers. Finally, lending to agriculture is a long term, so it is difficult to liquidate and repay at short notice. Due to these reasons, banks are reluctant to lend to agriculture and relatively more favourable inclined to lend to industry.

The Central Bank is persuading the commercial banks to increase their lending to industry as well as agriculture in the national interest. First, the government can guarantee the repayment of medium and long term loans provided by banks to the projects desired. Second, government can persuade the banks to invest their funds in public bonds, which are issued for promoting the developmental projects. The central bank renders the facility to convert these bonds in cash when needed. Third, Central Bank

can provide money market rediscount facilities to commercial banks for medium and long term loans to provide liquidity. Fourth, Central Banks can participate in Syndicate loans.

The commercial banks should prepare a training plan for human resource development of long term perspective. The training package should be designed in such way that the bank personnel get equipped in project appraisal in urban and rural areas. A special programme of developing bank expertise in the techniques of industrial projects is to be encouraged.

Over the period of years, the commercial banks in Jordan have increased their lending to various sectors of the economy. The bank lending is relatively very high for Commerce, Trade and Construction.

The lending is the only major source of revenue to the banks. Therefore, an attempt is made in this study to examine the effect of bank lending on the profitability of the selected commercial banks.

Main Objectives

The main objectives of the study are :

- (1) to analyse trend in bank lending,
- (2) to examine bank lending and profitability,
- (3) to measure efficiency of asset utilisation, and
- (4) to evaluate the financial performance of commercial banks at macro and micro levels.

Coverage and Methodology

The study covers five national banks and four foreign banks in Jordan, for the years 1979 to 1992. The data and information are collected from the financial statements published by these banks. The commercial banks are the principle financial intermediaries. The techniques of Ratio Analysis, relevant for the purpose of the study has been mainly used.

Scheme of Presentation

In order to achieve the objectives of the study the following chapterisation scheme is presented.

Economic Development and Sectoral Bank Lending :

This chapter has been structured into three parts, historical perspective, development of financial institutions, and sectoral bank lending.

Economy of Jordan has been characterised as an underdeveloped economy. Therefore, the government introduced developmental planning to achieve a high growth rate in domestic product, modernised its infrastructure, started a number of manufacturing industries and introduced agriculture and irrigation projects. In addition to this a number of developments have taken place in the areas of education, health, housing, cultural, banking and administrative set up.

Monetary policy plays a vital role in moulding the economic character of the nation because money and credit in a modern economy exercises a strong influence on

the volume of economic activities. An appropriate monetary policy stance can significantly assist economic growth by adjusting the money supply to the needs of growth by directing the flow of funds into desired channels and by making institutional credit available to the specific needs of different economic activities. Monetary policy can also help in correcting the economic ills of the economy such as inflation or deflation. In short, the Central Bank of Jordan has strived hard over the years by evolving the monetary policy stance in such a manner that it has been possible for the Central Bank to attain many macro-economic goals enunciated by the Government of Jordan.

The specialised credit institutions have provided medium and long-term facilities to the different sectors on easy terms and thereby accelerated the tempo of economic development process in Jordan.

Jordan has achieved rapid economic progress on account of sophisticated development of its financial sector. Among financial institutions mix, the commercial banks are the principal financial intermediaries. The commercial banks have through effective participation by rendering bank credit to various sectors have promoted the economic development of Jordan. The trend analysis of bank lending highlights the contribution of commercial banks in the development of various sectors of the Jordanian economy. It has also helped the government to direct their assets allocation policy according to the strategy of development planning through Central Bank of Jordan.

An analysis of sectoral allocation by the commercial bank lending indicates that it has substantially increased during the period 1979-92. So, the commercial banks lending

has contributed significantly to the development of the Jordanian economy. Further an attempt is made to examine the effect of increased bank lending on their profitability.

Bank Lending and Profitability :

Banks are the commercial organisations. So, they have organisational objective mix. These objectives are framed by the brain box, i.e. top management personnel of the bank. The objectives are always dynamic. They are framed within the policy framework, statutory and political constraints, economic and social conditions. The profitability is a major parameter to analyse the efficiency of bank lending. The profitability performance also highlight the financial soundness of the bank.

The profitability performance of a bank is primarily concerned with the collection of deposits, lending, liquidity, safety and security of public funds. Bank management with the help of marketing mix and market segmentation makes planned efforts through 'Command Area' approach to increase its total deposits. Deposits are considered like a total output of a bank. The interest paid to the depositors by the bank constitute a major item in the total cost structure of a bank. The total expenses of a bank consist of interest expenses, establishment expenses and other expenses. The interest expense is the most sensitive item and it has a direct impact on the total cost structure of a bank.

The total income of a bank consist of interest income and non-interest income. The interest income is major item of the earning of a bank. Therefore, volume of bank lending determines the volume of earning of a bank. Banks have relatively no control on

interest expenses. So only feasible alternative to improve profitability performance is to increase the volume of bank lending.

Therefore, an attempt is made to evaluate bank lending through profitability performance. For this, the principal factors determining the net profit of the bank are identified. The key factors determining the net profit are as under.

- (1) The Interest Surplus (IS)
- (2) The Non-Interest Load (NIL)
- (1) The Interest Surplus (IS)

The interest surplus is derived by interest incomes minus interest expenses. The interest surplus is a major item of income of a bank. It is mainly dependent on assets and liabilities of a bank.

The interest income of a bank is derived from lending, discounting of bills, dividend on financial assets and interest on investment.

The interest expenses consist of interest paid to the depositors and borrowers.

The segments of interest earning assets and total interest income equation is as follow.

$$\text{Interest Income} = \sum_{i=1}^n X_i Y_i$$

Where;

n = total earning assets

X_i = components of interest earning assets

Y_i = interest income earned on 'n'

$i = 1, 2, 3, \dots, n$.

In the same manner, the factors of interest expenses formula is as under

$$\text{Interest Expenses} = \sum_{i=1}^e d_i f_i$$

Where;

e = total interest carrying liabilities

d_i = components of interest carrying liabilities

f_i = interest paid on liabilities

$i = 1, 2, 3, \dots, e$

The profit as an index of financial efficiency is determined by the interest surplus.

It can be stated in the form of equation as follow.

$$\text{Interest Surplus} = \sum_{i=1}^n X_i Y_i - \sum_{i=1}^e d_i f_i$$

(2) The Non-Interest Load (NIL)

The non-interest load (NIL) is the difference between non-interest expenses and non-interest income. It is also a non-interest expense burden to a bank. The non-interest items of expenses are, the establishment expenses, rents, taxes and insurance. While the non-interest items of income are services provided to the customers of a bank, fees, commission, exchange and brokerage.

The non-interest load (NIL) is a critical key factor in determining the profitability of a bank. Therefore, the bank management has to concentrate on cost and productivity efforts. The bank management through cost analysis should identify the cost sensitive variables and devise an effective system of controlling expenses of a bank. At the same time, it must continue its efforts to achieve the performance through higher productivity and efficiency. The bank management must create a high productivity and cost conscious culture among its personnel at all levels of the organisation. A strict mechanism of monitoring expenses can help the bank management to control non-interest expenses.

At the same time the bank management should focus and direct its efforts towards the earnings of its non-interest income. The bank management can increase the non-interest earning through diversification of services and better customer services. In addition to this, the management through market research should develop the package of new services and areas for increasing the non-interest earnings. The banks should also endeavour to innovate new products and new instruments, to increase its income through non-fund activities.

The break up of the components of non-interest expenses provide the following equation.

$$\text{Non-Interest expenses} = \sum_{i=1}^m J_i K_i$$

Where;

m = total non-interest expenses

J_i = components of non-interest expenses

K_i = amount paid on components of m

$i = 1, 2, 3, \dots, m$.

The split up of the components of non-interest income are provided in the following formulation.

$$\text{Non-Interest Income} = \sum_{i=1}^N L_i P_i$$

Where;

N = total non-interest income.

L_i = components of non-interest income.

P_i = amount earned on components of n .

$i = 1, 2, 3, \dots, n$.

So, the non-interest load is the second equally important variable in governing the profitability of a commercial bank.

$$NIL = \sum_{i=1}^m J_i K_i - \sum_{i=1}^N L_i P_i$$

$$P = \left(\sum_{i=1}^n X_i Y_i - \sum_{i=1}^e d_i f_i \right) - \left(\sum_{i=1}^m J_i K_i - \sum_{i=1}^N L_i P_i \right)$$

Therefore;

$$P = IS - NIL$$

Where;

P = Profit

IS = Interest Surplus

NIL = Non-interest load

Assets Management

This chapter deals classification of bank assets, assets allocation methods and assets utilisation.

Bank management performs a crucial decision making function in allocating the available funds into different uses. The bank management's assets allocation policy determines the volume, types, costs of assets and returns over assets to the bank.

The bank assets are classified into two basic categories.

Basic categories of Assets

- (I) Non-Earning assets
- (II) Earning assets

Non-Earning Assets

- (i) Cash holdings of banks
- (ii) Balances with the Central Bank
- (iii) Demand deposits with other banks

Income Earning Assets

- (i) Income earning liquid assets
- (ii) Loans and
- (iii) Investments

Other Assets :

Buildings, Furniture, Fixtures acceptance and endorsement as per contract.

Assets Allocation Methods

- (i) The pool of Funds Approach
- (ii) The Assets Allocation Approach
- (iii) The Linear Programming Model
- (iv) The Assets Liability Management.

The assets utilisation and profitability of the commercial banks are positively related. In order to analyse this positive relationship, the Assets Utilisation Indicator

(AUI) has been developed. The Assets Utilisation Indicator (AUI) is used to measure the assets utilisation efficiency of the selected commercial banks at micro and macro levels.

The Assets Utilisation Indicator measures the return on assets (ROA). The return on assets is further analysed by examining the Cash Balances and Reserves as percentage to Total Assets, Investments as percentage to Total Assets and Assets as percentage to Total Liabilities.

PROFIT MARGIN

In order to have an in-depth understanding of the influence of major function of a bank, (i.e., bank lending), the profit margin has been identified. This provides overall performance of a bank. The term profit and profit margin are not the same. Profit is the excess of total revenue over total cost. Profit margin shows the cost incurred by a bank per unit of its gross revenue.

It may be possible that for a given period of time due to increase in bank lending, the profit of a bank may increase but its profit margin of a bank may fall. It has been observed that the profitability of these national banks has declined for the period under study. Therefore, an attempt is made to analyse the expenditure mix of banks' operations, for the simple reason that inspite of an increase in the earnings, the profitability has declined, then it must be on account of a more than proportionate increase in the expenditure side. So, we have made a further probe to examine the declining bank profitability with the help of profit margin. The decline in profit margin leads to a simultaneous decline in the profitability. A high profit margin shows a low

cost per unit of total revenue, whereas low profit margin shows that the bank has incurred more than proportionate expenditure in relation to its total revenue.

$$PM = \frac{NP}{OR} \times 100; \text{ or}$$

$$PM = \frac{OR - OE}{OR} \times 100; \text{ or}$$

$$PM = \frac{(IE+SR+OR)-(IP+PE+RTI+SP+SR)}{(IE+SR+OR)} \times 100$$

$$NP = OR - OE$$

$$OR = IE + SR + OR \text{ and}$$

$$OE = IP + PE + RTI + SP + SR.$$

Where;

IE = Interest and discount earned

SR = commission, exchange and brokerage earned.

OR = All other earnings less provisions for bad and doubtful debt after taxation.

IP = Interest paid on deposits and borrowings.

PE = Salaries, allowances, bonus, pensions etc. paid.

RTI = Rent, taxes, insurance etc. paid.

SP = Stationary and printing expenses.

PR = Publicity and public relations expenses.

The profit margin of banks at macro and micro levels is analysed. In order to explain the behaviour of profit margin, the expenditure analysis of banks is undertaken. Such an exercise will indicate the most sensitive variable responsible for the behaviour of profit margin of the banks.

Liability Management

In this chapter an attempt is made to analyse the carrying cost of liabilities of the selected commercial banks in Jordan. The carrying cost of liabilities is a major component in the total cost of the commercial banks. So, the profitability of bank lending is directly influenced by the carrying cost of liabilities.

In order to measure the change in the carrying cost of liabilities the following hypothesis is framed.

“The carrying cost of liabilities and size of liabilities are positively related”.

For the purpose of analysing the changes in the size of liabilities, we have developed an ‘Equity Multiplier’ : The Equity Multiplier considers the size of liabilities in relation to the respective equity base of the commercial banks.

An impact of change in the size of liabilities on carrying cost of liabilities is analysed, with the help of ‘Liability Cost Indicator’. Further, a functional relationship between ‘Equity Multiplier’ and liability cost indicator of the commercial banks will be examined for the period 1979-92.

We will further analyse an impact of an increase in carrying cost of liabilities. of the commercial banks on their profitability of lending through 'Profit Margin'. For this purpose, we will test the following hypotheses.

***“The Equity Multiplier’ and Profit Margin
are inversely related”, and***

***“Other things being equal, there is an
inverse relationship between liability cost
Indicator’ and ‘Profit Margin’ of banks.***

In the liabilities mix, the deposits constitute 80 per cent of total liabilities of the commercial banks. So, we will examine the interest expenses as percentage to total deposits. In order to ascertain a strong critical variable responsible for change in the carrying cost of liabilities we will test the following hypothesis.

***“Other things remaining the same, a change
in the structure of deposit-mix of the
commercial banks, bring change in the
carrying cost of liabilities of the commercial
banks”.***

The commercial banks in Jordan are in private sector. So, they have raised their capital through equities. The equity capital is the second important item in the liabilities

mix of commercial banks. For this purpose an 'Equity Utilisation Efficiency Indicator' has been developed.

MAIN FINDINGS AND SUGGESTIONS :

We have summarised the major findings and have been presented in a scientific and systematic manner, followed by concrete suggestions to improve the profitability of bank lending of the selected commercial banks in Jordan.