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INVESTIGATE THE RELATIONSHIP BETWEEN CREDIT RISK MANAGEMENT AND LIQUIDITY MANAGEMENT AND THE PROFITABILITY IN BANKING SECTOR

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Abstract

In developing countries, the role of financial markets, such as banks, in financing various economic sectors is stronger and more prominent than capital markets such as stock exchange. So it can be extraordinary important to evaluate the banks performance, according to their prominent role in economy. Profitability is one of the influencing factors in the evaluation of banks performance. Factors influencing on the profitability of banks can be divided into two categories: internal factors, which are under the control of bank management, and external factors, which are beyond the control of bank management. This paper aims to study and investigate the relationship mode between credit risk management and liquidity management and the profitability in banking system. According to the obtained results, variables such as liquidity management and credit risk management have a significant relationship with profitability in banking system, compared with the other internal factors. Finally, according to the results, a series of practical solutions have been proposed to increase the profitability of banks.

Keywords: *Credit Risk Management, Liquidity Management, Profitability, Banking System*

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Introduction

Nowadays, service sector possesses a significant share of the entire economy, compared with two other sectors of economy (industry and agriculture), and also banks and credit and financial institutions have a prominent and privileged role in service sector. Any activity which requires capital and financial sources acquisition, undoubtedly needs interference of banks and financial institutions (Rostami, 2011). Banks constitute an important and influencing sector of economic and commercial activities around the world. Most of people and institutions are using banks for depositing or borrowing. Banks play a basic role in maintaining public confidence in the monetary system, through a close relationship with regulatory authorities and governments, and also the regulations legislated by governments about them; so there is a significant and pervasive interest about banks' Economic health and especially the ability to pay obligations, liquidity, and relative level of risk (danger) which there is about their various operations .(AliMadad, Arbab Soleimany, 2002) Bank, in the view of founders and shareholders, is a commercial institution, which is constituted for earning profits through implementing monetary and credit transactions; in the view of them managers should make their best effort to provide maximum possible benefits. Therefore, today there is a need to investigate influencing factors in banks' profitability, given the extent of the banks' branch and increasing growth of private banks and credit and financial institutions, and presence in competitive market (Ouni, 2008). This paper analyzed credit risk management and liquidity management, which are internal factors influencing banks' profitability, and focused on its relationship with bank profitability, and sought some solutions to increase efficiency and profitability for bank managers.

AN OVERVIEW OF THE CONCEPT OF CREDIT RISK, LIQUIDITY, AND PROFITABILITY

Credit Risk

Credit risk is one of the oldest and largest risks that exists in trade, risk of losing granted credit, which arises by failing to pay debts by borrowers, is one of the largest managerial risks until now. It is clear that predominating over credit risk associates with economic mechanisms, and consequently, most of banks consider internal rating system of improvement for borrowers. Credit risk is resulted from uncertainty in ability of a certain partner to achieve his targets. Increased diversity in partner types, and wide variety of task forms are types of credit risk management, which are transferred to the head of risk management activities (Shamseddini2010). Credit risk is periodical, and default risk depends on the structural features. Accordingly, bank policymakers can decrease fluctuations in output, through adjusting policies to promote financial stability and efficiency (Da Silva et al., 2013). For facilities granting, precision and consciousness should be applied, based on the criteria and rules, which requires identification of credit risk indicators in facilities granting. These indicators are divided into two categories:

a) Credit information: information which can approve, modify, or reject the evaluation of users about past or present events, or their expectations about the future events of an economic unit. Credit information indicators are classified as follows:

1- Work background of applicant
2- Capital
3- Amount of the bounced cheque.
4- Amount of obligations to the other banks.
5- Amount of collateral.

b) Financial statements: There are various tools and indicators to evaluate the financial situation of borrowers, and also to determine their ability to repay their obligations. Various financial statements are one of these indicators for paying Facilities. Balance sheet, profit and loss statement, cash flow statement, and statement of comprehensive income construct the basic financial statements (Karami, 2010).

Liquidity

Liquidity is one of the economic terms. The collection of money, including sight deposits of private sector in banks, and banknotes & coins in the hands of individuals, and *quasi-money including term deposits, savings and loan deposits, and other deposits is called liquidity; in other words, the collection of* banknotes & coins and credit resources are the most important components of liquidity. Wallter WoodWorth summarized the liquidity theories of his time and before it, in four categories:

a) Theories of commercial loans: mature loans will automatically provide the required liquidity. According to this theory, short-time investments and facilities will be the best types of investment and giving credit.
b) The theory of transmissibility: This theory was formed after extension of financial markets, and advocates of this theory believe that banks should maintain a considerable amount of their funds as short-time & instant tradable securities. If a problem occurs with the liquidity of bank, this securities will be sold without a significant loss.
c) Expected income theory: This theory was introduced when installments facilities period started. Advocates of this theory believed that most commercial and consumable loans was granted versus a series of revenue flows resulted from repaying facilities. This huge flow of repayments from facilities, continuously provides manager with new funds in order to meet liquidity needs and new demands.
d) The obligations management theory: This theory was accepted by very large banks, which coincided with the development of capital and money markets. Advocates of this theory believe that it is not rational to maintain whole required liquidity in the bank. Whenever cash is needed, obligations management can supply or purchase it from the market. The source of these liquidities is as follows: purchasing additional reserves in the Central Bank, issuing macro deposit certification, borrowing

from the Central Bank, issuing short-term bonds, issuing capital securities, increasing the bank's ordinary capital, financing from global money markets; some of these tools are unavailable in the current banking system of the country. From seven aforesaid tools, only the second and third ones are available for banks, and the other tools are not yet applied (Rashidi et. at., 2010).

Profit

Profit is one of the most variable concepts in the complex business world; perhaps we never can provide a definition accepted by all. Among the various definitions which have been raised for profit, the following is one of the most comprehensive:

Benefit is resulted from change in the equity or change in net assets of a business entity, during a financial period. More precisely, benefit is resultant of all changes in equity during a financial period, excluding changes resulting from investment by owners and distribution of sources among them (Alivar, 1995). Profit is the difference between total revenues and total costs of an enterprise. But we should distinguish between economic profit and accounting profit. Accounting profit or commercial profit, is the difference between earned income and sum of all the occurred and recorded cost figures by the enterprise. In the definition of economic profit, it is said that economic profit is accounting profit minus the non-committal costs resulted from items which are in availability of enterprise and used by it, by owner. Non-committal costs are "lost opportunity costs". Figure 1 shows the influencing factors in banks profitability, which have been divided into two internal and external categories.

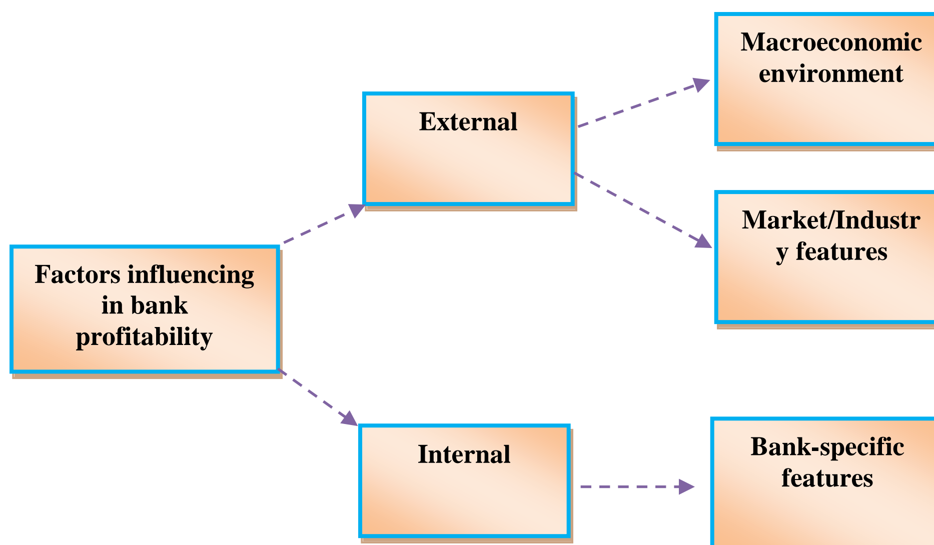

Figure 1: Influencing Factors in Bank Profitability

Internal factors are factors that can be controlled by the bank management. Some of these factors are:

1) Capital
2) Cost management
3) Debts combinations (deposits)
4) Assets combinations (granted facilities)
5) Employees
6) Credit risk management
7) Liquidity management

(Rostami, 2011)

Given that the latter two cases have more influence on bank profitability, we will describe them in the following:

Credit Risk Management and Its Relationship with Profit

The word “risk” means the possibility or probability of facing danger, injury and damage, and earning reduction. Risk is a potential loss, which is directly resulted from income and capital losses, or is indirectly arose from some constraints which decrease the bank’s ability to achieve financial and commercial targets. Basel Committee on banking supervision, has defined risk as the possibility of occurrence of unexpected events - the possibility of occurrence of loss. Nature of risk in banking system is quite different from risk other economic units due to some factors such as the number and variety of banking operations, the different nature of the operations, the bank’s capital position and its constraint, protection of depositors and shareholders’ benefit, the situation of depositors’ sources and their abundance, lack of sufficient expertise in resource management, and numerous record of financial operations; and these cases necessarily require risk management in banks to be more sensitive, complex and difficult than risk management in other economic units. Risk management is modern identification, analysis, act and planning for encountering its study effects and embracing its positive effects. Occurrence of risk in both conventional and Islamic banking system leads to reduction of bank’s profitability power, which is shown in three forms of: profitability less than predicted goal, wasting all predicted profit, and finally loss (Bashir and Hassan, 2004). Risk management is one of the main pillars of the financial and banking systems and includes those parts of banking activities which affect risks set. Determining, measuring, observing, and controlling risks constitute risk management process. The main goal of risk management in any organization is providing the best performance and optimizing the use of capital, and maximizing shareholders’ assets value, which cover the fundamental risks such as credit risk, market risk, and operational risk, using appropriate acts and timely solutions. So, the purpose of risk management is not eliminating risks from bank’s activity, but it is creation of optimal balance between risk and return (Mehrabi, 2010). Credit risk is the risk arising from uncertainty (the bank) about the ability of account side (client or committed) to fulfill his obligations. Credit is granted by credit provider, and is taken by debtors. In

other words, credit represents the amount of money will be paid at a future date, and there is credit risk because the expected payments might not be fulfilled. So, the meaning credit risk can be potential losses, when the client received credit but he has refused to repay it, or he has not the financial ability to repay it, completely and timely. Management, especially financial entities management, has never been an easy task, and in recent years has encountered many problems due to presence of risks in the economic environment. But the main part of the financial entities' businesses, such as banks, is lending. Furthermore, these institutions in line with higher profit should be successful in recapturing of the loans from clients, or in other words their credit risk should be low (Rostami, 2011).

Non-default risk probability in the next year is a function of profitability, liquidity, coverage, activity increase, and leverage function decrease. Smaller companies and those have a single bank relationship are more likely to have default risk. The findings suggest that a major bank to enter implementing policies to reduce risk through margin increases that were previously too high, is very motivated (Ngurah et. al, 2012). The reasons to pay attention to credit risk are:

A) Credit risk is the most important factor in bankruptcy of banks. If the customer fails to timely fulfill its obligations, this facilities would be bank pending receivables, and this issue would led to disruption in distribution of bank credit and ultimately, disruption in economy of the counter.

B) Measuring credit risk or predicting the losses of credits non-payment and establishing a logical relationship between risk and return, will provide the possibility of optimizing the composition credit portfolio, asset pricing, and determining banks' economic capital, in order to decrease capital costs and maintain the competitive ability, and will be a kind of relative advantage for banks and credit institutions (Rouintan, 2006).

Banks' financial statements including balance sheet, profit and loss statement, and statement of cash flows are strongly affected by credit risks. The amount of credit risk has a negative relationship with profitability. Thus, banks can raise their profitability, using increased monitoring and credit risk evaluating, and such policies require prediction of risk levels at future. So central banks consider special standards about receivables level, which should be applied by banking system (Panaayiotis et. al, 2008).

Liquidity management and its relationship with profit

Liquidity management means the bank's ability to fulfill its obligations over time. Liquidity management is one of the biggest challenges that the banking system faces. The main reason of this challenge is the fact that most bank's sources are being financed from short-time deposits. Moreover, facilities granted by banks are invested in assets, which have relatively low degree of liquidity. Liquidity management as well as other managements, is a contrast between risk and return. Because holding more cash in currency accounts, the cash in central bank, cash in other banks and legal reserve will cause risk reduction, and simultaneously reduce bank's investment opportunities, and also reduce bank's return. The main task is to establish a balance between short-term financial obligations and

long-term investment. Obviously, insufficient liquidity will cause the bank to face risk of inability to fulfill its obligations and therefore, the bank will be at the risk of bankruptcy. On the other hand, maintaining plenty of liquidity is also a specific type of inefficient allocation of resources, which reduces bank's profitability rate to people's deposits; thus, causes market losing (AhmadPour, 2008). The target of banks in liquidity management should be achieving to a strategy which make the maximum benefit with the least risk possible (AhmadPour, 2008). Controlled compliance or non-compliance of maturities and interest rate of assets and debts of a bank are very important in bank managing. Since the trades of banks are very varied, and often have various types and conditions, complete time compliance rarely happens. Time non-compliance of assets and debts may increase profitability, but it may also increase the risk of loss (AliMadad, Arbab Soleimani, 2002). Liquidity control is one of the important responsibilities of bank management. The use of short-term funds in long-term investment will create this risk that the investment accounts owners may want to receive their funds and this issue will force bank to sell its assets. Banks should have sufficient liquidity to response to the demand of depositors and lenders, in order to attract public confidence. Financial institutions need to have an effective asset and debt management system, in order to be able to minimize maturities non-compliance in assets and debts, and optimize their return. Liquidity management is done in various levels. The first type of liquidity management occurred daily, and required liquidity in the future days is alternately predicted. The second type of liquidity management, which is based on liquidity flow management, predicts required liquidity for longer intervals i.e. six months to two years. The third type of liquidity management review the bank's required liquidity in critical conditions. Also liquidity has an inverse relationship with profitability; thus, financial entities should create a proper balance between liquidity and profitability (Rostami, 2011). All political measures, which can be executed in the countries for promoting growth, employment, productivity, and competitiveness, and in order to reduce public and foreign debts, are essential to stabilize the economy (Castro, 2013).

CONCLUSION AND RECOMMENDATIONS

Banks as well as other economic entities are seeking profitability; thus, it is necessary to identify influencing factors to achieve this important target. According to the performed discussions, it is determined that credit risk management and liquidity management have a strong significant relationship with profitability in banking system, comparing with the other factors and internal influencing variables in profitability. Both credit and liquidity risks have inverse relationship with profitability, and this important point should be considered in financial entities, particularly banks, in order to create a logical balance between them in line with profitability increase. According to conducted studies, doubtful receivable costs have a strong negative impact on banks' profitability. These costs are imposed on banks because they failure to timely receipt receivables. Granting facilities

is one of the most important tasks of banks; hence, they have to identify, measure, and control the risk arose from credit facilities granting, using credit risk management. In this regard, it is proposed to effectively perform some actions such as: accurate validation of facilities applicants, considering Basel standards, obtaining valid collateral and guarantee before granting important facilities, not paying facilities to bad-account clients of other banks, monitoring cost estimation and proper implementation of plans and creating the a independent unit in order to identify, measure, and control credit risk in line with reduction in the volume of pending receivables, and reduction in doubtful receivables costs. Also, financial costs have a strong and negative impact on banks' profitability. These costs are imposed due to self-reliance and borrowing from central bank, which indicate inaccurate liquidity management. In line with the accurate management it is suggested that some actions be performed, such as: attracting low-cost deposits to response to the need of bank's clients, managing facilities repayment, coordinating between the maturities of granted facilities and deposits, analyzing the ratios such as self-reliance (total facilities to total deposits), continuous evaluating and controlling the key items of balance sheet, and evaluating important issues in balance sheet like liquidity, the ability to pay debts, and financial flexibility.

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