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**INTERNAL INFLUENTIAL FACTORS ON PROFITABILITY OF BANK BRANCHES (CASE STUDY: PARSIAN BANK BRANCHES IN TEHRAN)**

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**ABSTRACT**

Role of money markets (banks) in funding different economical sections is more strong and highlighted than capital markets (stock market). Therefore according to the prominent role of banks in the country's economy, their performance evaluation can be of extra important. Profitability is regarded as the influential factors on evaluation of bank's performance. Influential factors on banks profitability can be divided to internal (controlled by managers of banks) and external (uncontrolled by managers of bank) factors. Main goal of present research is to study how internal influential factors affect on the Persian bank branches profitability in Tehran province. Research method used in this study is explanatory-analytical. Because of the relationship between variables, present research is correlation and sub branch from regression analyses. Statistical society of this research includes all the 60 branches of Persian bank in Tehran province and its time domain is 2008 to 2012. Needed data for this research extracted by questionnaires and financial statements from Persian bank in Tehran province. Statistical methods included test of Lion, Lee, Cho (Lice) and test of IM, Sons and Shim (IPS) and analyses of regression and correlation which are calculated and full filed by EViews software. Dependent variable is profitability and independent variables are: amount of deposits, amount of granted facility, indexes of liquidity management, expense management, that variables such as granted facility, expense management compare to the other variables are of a very strong positive and significant relationship with the variable of profitability. Finally according to the results, a set of practical solutions for enhancing bank's profitability, specially Parsian bank, are recommended.

**Keywords:** *Parsian Bank, Profitability, Liquidity Management, Facilities, Deposits, Expense Management*

**INTRODUCTION**

Nowadays, compare to the two other section of economy (industry and agriculture), significant portion of the whole economy is related to the service section and in this section, banks, financial and credit institutions have a prominent and excellent role. Every activity which involves acquiring capital and financial resources, surely needs to engagement of banks and financial and credit institutions. Therefore, banks constitute an important and influential section from economical and mercantile activities. Most of the people and institutions use banks for deposition or borrowing. Banks by way of close relation that have with the supervisory authorities and governments and the regulations that governments constitute about them, play fundamental role in keeping the public confidence to the money system. Therefore, there is an ever-increasing and considerable interest to the banks economical health, specially ability in obligation payment, liquidity and relative amount of risk, which is concerned with their different operations.

On the other hand, banks are economical enterprises which rooted in economical construction of private section and like other production enterprises at economy, can provide their optimized services under program and goal of profit maximization. For funder and stockholders, bank is a trade house which is created by fulfilling money and credit trades. This group believes that banks managers' attempts must be focused on the maximum possible profit. Therefore, study of influential factors on banks' profitability, according to the bank branches extension and increasing- growth of private banks and financial and credit

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institutions across the country and after that, presence in the contestable market, today is regarded as a necessity (Owni, 2009).

Banks as an intermediary of money resources, beside investment institutions such as insurance and bourse, are regarded as the main fundamentals of financial markets. They are one of the important factors for money policies and executors for economic decisions in central bank. Banks by expanding and contracting of bank credits and guiding funds from one section to the other, beside help of economy stabilization at large scale, also play an effective role in regulating economical sections. Because capital market has not developed effectively in Iran, banking is of more important and effect, and in effect, these are banks that in long term do the financing (Kam, 2001). Today, banks provide different services that range from deposit absorption and facility granting to the new services which are provided by Internet. Enhancement of efficiency and providing different services, in the least possible time, are among the expectations that banks grid in the country continuously has been encountered it and in this direction, functions such as setting of acceleration plan

(Network of exchanging information between banks), and electronic banking at the bank system of country, has been designed and fulfilled. Bank system by leading of resources to production and service section, can provide beside its duty in creating production, occupation and operating its social duties about country's economic growth and development. Activity area of banks is in the three: resource allocation, resource mobilization and service providing sections. Therefore study and recognition of banks functions in performance of each mentioned duties, can provide spectrum of existed weak and strong points in banks. Since banks like other economical enterprises looking for profit, achieving for this important goal, recognition of influential factors is necessary. Influential factors on process of bank profitability are divided to two broad internal and external factors. Internal factors are under control of bank branch management and external factors are out of bank branch's management control and are influenced by large scale climate. As above mentioned, internal factors are under control of branch management and thus these factors mainly reflect managerial policies and tactics which is revealed in area of resource mobilizing, assets and debits management, liquidity management and expense management (Owni, 2008).

Also development of global markets and increase of compete in the markets of financial services, profitability of this industry is influenced. According to this fact that profitability is one of the bank's important functions as a financial intermediary, and since a profitable bank can more powerfully encounter with the negative shocks of markets, therefore attention to index of profitability as the index of function evaluation in banks and importance of its role in decision making related to way of resource mobilizing, financing, and also the way of resource allocation is necessary. Thus, banks by studding related factors with their branches profitabilit must cause the power of competitiveness and consistency by large scale change of climate. According to this fact that only internal factors are under control of branch management, the research focuses on recognition and analysis of influential internal factors in profitability of bank branches and in a case-study for parson bank of Tehran province and followed by, providing solutions for increasing efficiency and profitability of branches for managers of this bank.

### **Theoretical Literature of the Research**

Financial global and world of banking are changing and transforming with an indescribable speed. Local, national and international banks are competing hard with each other and through mobilizing bank resources and providing different services to customers, whether deposits or recipients of loan, and facilities, are outstripping with each other. While managers are concerned to characterize the result of decisions from previous managers, lawmakers of banks are focused on the health and security of bank system and by an attempt to keep public confidence on banks' situation, through banks which experience sever difficulties, are supervisors. In order to reach their goals, also to be confidence about their living, banks need to maximize their profit. Increasing of bank profit is possible through increasing of incomes and decreasing of expenses. Therefore, they focused on recognition of factors that influence them. So such is, banks resources and expenditures as an influential components on facades of profit and loss, is affected by different internal and external factors that their understanding by agents of bank system is

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very important. In the recent few decades, recognition of influential factors on banks` profitability in the economical literature, has been concerned by financial economists and engineers, but because of public construction of bank system, is not concerned very much inside the country. In this direction, recognition of these variables using economists` experiences through expansion and development of bank system as main important development leverage has been concerned.

On the other hand, analyzing of data and evaluation of banks and financial institutions performances is a function of special framework and is completely different with firms and other beneficial institutions. Although addressing to these important components in policy making and strategy establishment of banks in Iran according to the publicity of bank system and weakness of bankruptcy risk, has not been more concerned but since the third program of country development, and by emergent of private banks and increase of compete in the arena, specially according to this fact that private banks do not oblige themselves to be in the less profit opportunities and activities, public banks must create needed readiness for confronting with challenges face them, by time to time evaluation of activities and performance and recognizing their weak and strong points.

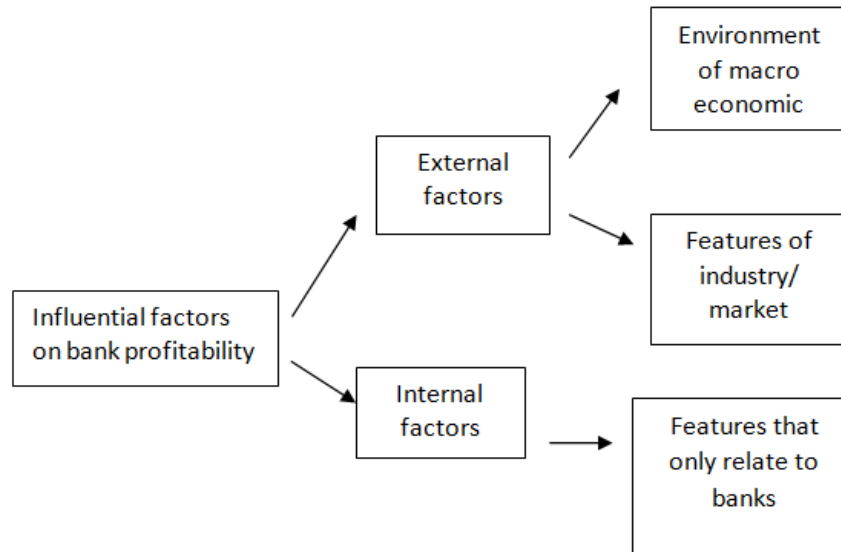
Thus, based on the above mentioned, we can in a broad categorizing, express incomes and expenses of bank as follow:

A) Main resources of bank income included: net income resulted from facility granting, income resulted from commission (earned by service providing such as guaranteed letters, documentary credits and...)

B) Main expenses of bank included: operating expenses, expenses of administrative personnel, reservoir expenses resulted from burnt claims (doubtful account).

Financial statements are final production of financial reporting system. One of the most important goals of preparing financial statements is its suitability for a vast range of usages whether in house or out house for logical decision makings. Therefore according to this fact that access of outhouse users to the information about firms is more difficult than the in house users, financial accounting system emphasis on providing useful information in the form of financial statements for our house users. Accounting profit, in the set of financial statements, is of a special important because it is concerned by users of financial statements as a guidance in taking investment decisions and an index for assessment of manager`s efficiency (Rizi et al., 2009).

**Recognition of Influential Factors on Profitability of Banks (Molyneux and Thornton, 2010)**



**Internal Factors**

These are factors that are controlled by bank management, and some of them are *Liquidity Management*: Liquidity management is the bank ability to fulfill its commitments over the time. Liquidity management is one of the biggest challenges that banking system confronted it. Main resources

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of this challenge are that much of the banks resources funded by short term deposits. Moreover, banks` facility granting that is paid for investing in assets and degree of liquid ability, is relatively low. Liquidity management also like other managements is a mutual between risk and yield (Pur, 2009).

*Expense Management:* Main goal of each economical enterprise is to increase value for stockholders and indeed, in the new condition of business conditions success of an enterprise relates to value creating for stockholders, because owners of capital will invest where expected yield can be acquired. There is different solutions to increase profitability and consequently to value creating for stockholders. Although establishment of a suitable capital structure and improvement of enterprises `portfolio are the most common actions for increasing the value creating, but there is another important origin for profitability: managing expenses by different units of an organization (Fagkarian159). The stress of expenses management system is on economical enterprises activities. This stress is important goal of production producing and qualified services with a least final expense (Rezaian, 1389).

*Combination of Debts (Deposits):* One of the important factors for sustainability and survival of organizations such as bank, is to absorb more and more financial resources, that is, absorption of different deposits and optimal using of these resources in the society issues of services, commerce, industrial and fundamental, that both banks and customers of bank profited and also country`s economical cycle will be moved. Banks by opening different accounts and acceptance of savings, short and long term deposits, meanwhile keeping funds as a service to its customer, using physical manpower, fulfill to facility payment, direct investment and other bank services. Among the important duties of banks is to fund liquidity of legal and real parties for investing in different grounds and consumption buying`s (Kam, 2010).

*Combination of Assets (Granted Facility):* grant of credit facility is of bank`s main activities and most main resources of bank`s income funding. Economical development is impossible without quantity increase of “capital” factors as a production factors and since it is impossible for every parties (real and legal)for different reasons can use from their personal money resource and opportunities in all cases and steps of activity in addition, economical unit`s payments and recipients also fitted each other hardly, therefore they inevitably need resources and facility for credit and financial institutions which most important of them are banks.

### **External Factors**

There are factors that are controlled by bank management. Some of these factors are as follow:

*Inflation:* Inflation as one of most fundamental economical intricate, is recognized in each country`s economical living. Inflation is the continues increasing at the public level of prices or continues reduction in money purchasing power of a country and mainly regarded as unfavorable phenomena in economy which imposes sever exposures on society. These phenomena at higher level, in addition to disordering prices system, will result in reduction of savings; lose of investment motivations, provocation of capital flight from public sections through speculation activities and finally dullness of economical growth.

If inflation is predicted entirely and rate of interests is regulated based on it, increase of its incomes will be faster than increase of expenses and this is a positive effect on bank profitability. But, if the inflation dose not predicted, it is possible that bank`s expenses increase more faster than that its income and in turn have diverse effect on profitability (Baqery, 2006).

*Policies of Central Bank:* Money policies of expansion and contraction also can have potential effect on bank profitability. Interest rate is one of the money instruments that plays important role in economical activities, such a way that ring of connective and transitional of money policy is regarded as a real section of economy. This rate is defined in money systems based on common free economical banking in the form of supply and demand for money resources that are borrowable and economical policies of central bank. Although, access to a climate and conditions of stable large scale economy, needs to hasten and keep of economical growth. Then performance of suitable large scale economical policy has effective role on growth of investments which has a special place in the money and financial policies at stabilizing for economy (Azogji, 2007).

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**Business Cycle:** At the time of economic recession banks reduce lending, because such a course generally accompanied by risk increasing. Therefore gross profit also is reduced but in the time of economic thrift, demand for facility granting is strengthened remarkably and gross profit is also increased. Therefore incomes can grow quicker than expenses that result in profit increasing, while it is possible at the time of recession to be divers (Athanasoglou *et al.*, 2008).

**Gross Domestic Product (GDP):** Gross domestic product is the whole value of goods production and services in a country in market price in an individual time (generally one year). Per capita income usually is used as a measurement for defining standard of living in a country. By definition, per capita income is the whole price of gross product divided by number of people in each country. Often, when GDP is less than expected trend, profit is reduced and if it is more than expected trend we expect to be increased (Athanasoglou *et al.*, 2008).

**Share of Bank from Whole of Bank System:** Bank share can be a competitive measure between banks. Then a change in bank share can be influential in the potential profit. Deposit measure from whole banks deposit can be expressed as a measure of market share for bank.

### Hypothesis of Research

- 1- There is significant relationship between amount of deposits and bank branches.
- 2- There is significant relationship between amount of payment facility and branch profitability.
- 3- There is significant relationship between amount of liquidity management and branch profitability.
- 4- There is significant relationship between amount of expenses and branch profitability.

## MATERIALS AND METHODS

### Methods of Research

Method of the research is explanatory-analytical and according to the type and nature of study, library method through study of background and subject literature, issued for collecting needed data. This part including study of books, vocational magazines about banking and economy, bank's circulars and regulations, thesis and statistics from Persian bank's branches reports and balances.

In order to fulfill this research, variables such as amount of bank deposits, amount of granted facility, and liquidity management, is selected and is addressed to the amount of their effect on branch profitability. Since most important tools which used for study of relationship between variables is regression, and because in previous fulfilled research, using regression model, estimation of profitability function has been addressed, here we address to the estimation of profit function according to internal factors and using regression and EViews software. Time domain which is used in this research is 2008 to 2018.

### Findings of the Research

Present study by exploiting from data panel method, investigates relationship of Parsian bank's branches profitability in Tehran with independent variables, and todo that, uses the following equation for evaluation of the effect of independent variables on this index:

$$\ln PROFIT_{it} = \beta_0 + \beta_1 \ln M_{it} + \beta_2 \ln RE_{it} + \beta_3 \ln IS_{it} + \beta_4 \ln MC_{it} + \varepsilon_{it} \quad (1-3)$$

Where,

profit<sub>it</sub>= amount of profitability of i<sub>th</sub> branch at t<sub>th</sub> time,

M<sub>it</sub>= existed liquidity in i<sub>th</sub> branch at i<sub>th</sub> time,

RE<sub>it</sub>= granted facility for i<sub>th</sub> branch at i<sub>th</sub> time,

IS<sub>it</sub>= volume of payment deposits for i<sub>th</sub> branch at i<sub>th</sub> time, MC<sub>it</sub> is fulfilled for i<sub>th</sub> branch at i<sub>th</sub> time.

In order to estimate the existed pattern in this research we have used data panel technic. (more information about panel data, refer to (Baltagi, 2005; Greene, 2003; Gujarati, 2004). For this reason we must first use a test for recognition and selection between least combined square method, fixed effects (FE), and Random Effect (RE), to define that which of the mentioned methods have better fitness from existed data. To do this, we have used F-Tests of Limea, Breusch-Pagan test (Lagrange Multiperlcm) and Housman test.



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In order to estimate the pattern, first we estimated the fixed effects by method of least accumulated squares and then used the F-Limer. If nullhypothesis ( $H_0$ ) is rejected, estimated model is 91panel and then again estimate the model with random effects and using Hausman –statistics, define that whether the model must be estimated with fixed or random effects.

We have used EVIEWS7 software to estimate the mentioned model and tests.

**Table 1: Results of F-limer for showing combined data versus Random effect model**

Type of test	Statistic of test	Level of significance	of test results
Test of F-Limer	46/1865	0.0475	the model of fixed effects, is approved against model of combined data

**Table 2: Results of Hausman test for showing fixed model against random model**

Type of test	Statistic of test	Level of significance	of test results
Hausman test	37/9835	0/00000	the model of fixed effects, is approved against model of combined data

Based on the results of tables 1 and 2, research model for branches of studied case of Persian bank, estimated based on fixed effects and the results of Estimation is shown in table 3.

**Table 3: Results of model estimation for 60 branches in 1387-1391**

Dependent variable: bank profitability				
Explanatory variables	C	test of panel data with fixed effects		
		coefficient	t-statistic	p-value
<b>Intercept</b>		<b>512.291</b>	<b>5.2106</b>	<b>0.0001</b>
Log of liquidity existed in branch	LOG(M)	7.456	14.498	0.0000
Log of granted facilitates	LOG(RE)	.2089	8.9787	0.0000
Log of deposit payment volume	LOG(IS)	-28.165	-5.8634-	0.0000
Log of fulfilled expenses	LOG(MC)	1.9102	28031	0532/20
AUTO REGRESIVE	AR(1)	-0.8065	-3.7651	0.0014
AUTO REGRESIVE	AR(2)	-0.3693	-8.1269	0.0000
F- statistic	4.70982			
P-value	0/00000			
R2	0/74			
Adjusted R2	0/58			
Watson camera	2/7			

According to table 3, F-statistic is indicates significance of whole regression. Also, in the selected model,  $\bar{R}^2 = 0.74$ , is acquired which shows that explanatory variables are explaining about 74% of changes in dependent variable. For inconsistency variance, also coefficient of consistent model with inconsistency variance estimated. As the table shows, coefficient of liquidity variable in the branch between selected branches is positive and from statistical point of view is also significant. Thus, we can say that liquidity of selected branch has a positive and significant relationship on branch profitability in the studied branch. Coefficient of this variable is 14.5, which indicates that increasing of 1 unit liquidity in studied branch, will cause %14.5 positive effect for profit increase. This issue indicates that the hypothesis of this study is based on meaningful indicates that hypothesis of this study based on meaningful (effect of liquidity on branches profit is confirmed).

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Results of model estimation also show that coefficient of granted facilities (RE), with studied branches` profit and at the given duration, have a positive mark. Therefore, the next hypothesis of study, based on meaningful relationship between granted facilities and branches profit, and is confirmed.

According to the results, coefficient of recipient deposits volume (IS) is negative and is meaningful from statistical point of view. It means that increase of recipient deposits volume in selected branches will affect diversely on branch profit and result in its reduction. Thus the hypothesis oh this study based on existence of meaningful relationship between recipient deposits volume and branches profit is confirmed in the studied branches.

Coefficient of variable of fulfilled expenses in this pattern is positive and meaningful from statistical point of view. Coefficient of this variable is 1/91, and indicates that with 1 unit increase of fulfilled expenses, profit will be reduced 1/91. Therefore the hypothesis of this study based on existence a meaningful relationship between fulfilled expenses and branch profitability, is confirmed. Also to omit the correlation itself from given model such as first class autor regressive process (AR (1)) and second class (AR (2)), we entered into the regressive model which its effect is seen in improvement of Watson camera`s statistic. Now, according to the results, we can say that:

**Table 4: Confirmation or non confirmation of research hypothesis**

Hypothesis	Variables	Confirmation or non confirmation	Coefficient of variables	of	Level of significance	of
Hypothesis 1	Liquidity	confirmed	7,0456		0,025010	
Hypothesis2	Facilities	confirmed	3,2089		0,07207	
Hypothesis3	Volume of deposits	confirmed	-29,0365		0,08100	
Hypothesis4	expenses	confirmed	1,9102		0,02086	

Thus results show that the entire research hypothesis is confirmed, but coefficient of deposits volume variable is negative.

### CONCLUSION

#### Discussion and Conclusion

This research was done to study effective factors on the Persian Bank branches profitability at the Tehran Province level and, to provide appropriate tactics in order to increase profitability of the bank`s branches in this province. The study has been performed based on real data results and to do this it has been used of balance sheet and other statements of the branches.

Since efficiency of expenses management is one of internal determinant factors with high significance for Persian Bank profitability, so it should focus on right expense control and operational efficiency to improve its profitability and, it is essential that bank management spend its most capacity and activity to increase demand deposits which have positive distribution in the banks' profitability.

Fischer test shows that the total significant regression of the research variables is significant. Also, R=0.74 has obtained in the selected model that shows the desired explanatory variables explain approximately 74 percent of dependent variable changes. Also for heteroscedansticity, the coefficients of consistent model with heteroscedansticity have been estimated. As it is shown in the table, the coefficient of liquidity variable in the branch among the selected branches is positive and statistically significant.

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Thus, it is possible to say that the liquidity of selected branches has had positive and significance influence on the branches profitability in the under study branches. The results of this research are consistent with the findings of research titled "Analysis of Effective Factors on the Profitability of Commercial Banks" performed by Hssan Badheri (2006/1385) in Refah Bank. Also, the findings of a research titled "The Study of Influential Internal Factors on the profitability of Keshavarzi Bank Branches in the Kordestan Proivince" performed by Fariba Rostami are in parallel with the results of this research. In this research, that performed by using statistical software SPSS, it has been shown that liquidity management variable has a very strong positive and significant relationship in comparison with other variables.

Also, the result of model estimation shows that granted facilities coefficient (RE) has had positive sign in the profitability of studied branches in the desired period. Therefore, the next hypothesis of this study based on the significant relationship between granted facilities and branches profitability is confirmed.

According to the results, the coefficient of received deposits volume (IS) is negative and statistically significant. Namely, the increase of received deposits volume in the selected branches affects the branches profitability reversely and results to its decrease. Thus, the hypothesis of this study based on the significant relationship between the received deposits volume and branches profitability is confirmed. The findings of this research also correspond with the findings of Hassan Bagheri (2006). Also, the findings of above hypothesis conform to the findings of Fariba Rostami who performed "The Study of Influential Internal Factors on the profitability of Keshavarzi Bank Branches in the Kordestan Proivince".

The coefficient of spent expenses in this model is positive and statistically is significant. Therefore, the hypothesis of this study based on that there is significant relationship between spent expenses and branches profitability is confirmed.

Also, to eliminate self-correlation from the desired model, first rate auto-regressive process (AR-1) and second rate auto-regressive process (AR-2) entered the regression model which its effect on the statistic improvement is seen well by Watson camera.

### **Suggestions for Future Research**

- 1- The study of Effective Internal Factors on the Profitability Using Time Series to Provide Regression Unit Model
- 2- The study of Effective Internal and External Factors on the Profitability of Bank Branches
- 3- Comparison of Profitability among Public Banks and Private Banks at the Tehran Province Level
- 4- The study of Persian Bank Performance Using the other Index of Profitability such as Net Profit Margin and Owner Equity Yield

### **REFERENCES**

- Ahmadpoor H (2010)**. Uncertainty and the optimal strategy to manage of liquidity in banks, the banks and the economy, N95.
- Azvaji A (2007)**. Analysis of the interest rates effects on bank profitability using vecm techniques. *Journal of Economic Research* 7.
- Bad Baltagi (2009)**. *Econometric Analysis of Panel Data*, Third edition (John Wiley & Sons) West Sussex, England 252-255.
- Bagheri H (2006)**. Analysis of factors affecting the profitability of commercial banks (Bank Refah). *Journal of Computer Research Center for Humanities* 8 N21.
- Faraji Y (No Date)**. *Banking Money and Currency*, Sixth edition (The publishing business publications) 84.
- Hedayati SA (2006)**. Home banking operations 2\_My Institute and Iran banking.
- Hoseyni SF (No Date)**. Study on the effects of changes in interest rates and Bank facilities on profits rate of Saderat Bank of Iran
- Jamshidi S (2000)**. *Islamic Banking* (Ney Publications).
- Mashayekhi B and SHariati eyvary A (No Date)**. Compare of earnings and cash flows as a measure for evaluation of performance. *Research Journal of Accountancy*.



**Research Article**

**Molyneux P and Thornton J (2010).** Determinants of European Bank Profitability: A Note. *Journal of Banking and Finance* **16**(6) 1173–1178.

**Mousavi SM (No Date).** The direct and indirect effects of operating costs on branches of bank profitability (case of Bank Sepah).

**Owini L (No Date).** Identify factors affecting the profitability of the State Bank (case of Bank Reafah) Refah Bank website.

**Ramlall Indrananri (2009).** Bank-specific Industry-specific and macroeconomic de terminants of profit ability in tawanese Banking system:under panel Data Estimation. *International Research Journal of Finance and Economics* (34) 1450-2887.

**Rashidi D et al., (2010).** Liquidity management, Education administration and improve the management of the Agricultural Bank

**Rezaeeyan A (No Date).** Design for the model of organizational development, fees management.

**Rostami F (2011).** Review of factors effectiveness on the profitability of bank’s branches (case study in Keshavarzi Bank) Keshavarzi Bank site.

**Shadkam H (2009).** *Proceedings the Nineteenth Conference on Islamic Banking*, (Islamic Banking Institution Press).

**Walter A (No Date).** *Econometrics Time-Series Approach*, 2007, translated by Mehdi Sadeghi and Somaye Shawwalpour (University of Imam Sadeq publications) 2 490.