ISSN:1991-8178

Australian Journal of Basic and Applied Sciences

Journal home page: www.ajbasweb.com

Effect of Ownership Concentration, Loan to Deposit Ratio and Non-Performing Loans toward Return on Equity and Stock Price Index of Banking Industry in Indonesia Stock Exchange

[1]Zakaria, [2]Abdul Rahman Mus, [2]Masdar Mas'ud, [2]Muhammad Su'un

[1]*University of Yapis, Faculty of Economics, Papua, Jayapura - Indonesia*
[2]*University of Muslim Indonesia, Faculty of Economics, Makassar - Indonesia*

ARTICLE INFO

Article history:
Received 12 April 2015
Accepted 18 July 2015
Available online 26 July 2015

Keywords:
Ownership concentration, loan to deposit ratio, non-performing loans, return on equity, stock price index, banking industry.

ABSTRACT

This paper aim is to determine the practical implications for top management in banking industry to identify factors to increase the stock price listed on Indonesia Stock Exchanges. Test results using structural equation modeling recommended for banking industry to give attention to ownership concentration, loan to deposit ratio, and non-performing loans. Research results show that although bank ownership concentration does not affect on return on equity but it has a direct effect toward stock price index. Loan to deposit ratio and non-performing loans affect the return on equity and stock price index. Return on equity as an intervening variable affect toward stock price index. This study limitation is the samples only in banks listed toward stock exchange so the findings cannot be generalized to other banking industry. Therefore, further study is recommended to fill this gap in order to strengthen the results of this study.

To Cite This Article: Zakaria, Abdul Rahman Mus, Masdar Mas'ud, Muhammad Su'un., Effect of Ownership Concentration, Loan to Deposit Ratio and Non-Performing Loans toward Return on Equity and Stock Price Index of Banking Industry in Indonesia Stock Exchange**. *Aust. J. Basic & Appl. Sci., 9(23):* *666-671, 2015***

INTRODUCTION

Indonesia had experienced a financial crisis in 1997-1998. According Ranciere *et al*. (2006), monetary crisis may occur as a result of government's financial liberalization. Bekaert *et al*. (2005) said the financial liberalization is characterized by a change in government regulations where foreign investors are allowed to invest in equity markets of country concerned and vice versa domestic investors are allowed to invest in foreign equity markets. In 1988, government has issued a policy of financial sector to makes a substantial change in capital market. Requirements for admission for stock issuer become easier and foreign investors are allowed to perform transactions to level of 49% of entire shareholding in industry. Subsequently in 2000, government allows ownership by foreign investors as high as 99%. This policy makes the stock has increased, both in number of transactions and in terms of stock price index (CSPI). Even recently, requirements of foreign investment in stock market are no longer limited so often not known who buy a stock. It is enough to understand that in emerging market the foreign investors have come in to buy stock, and it is usually followed by local or domestic investors (Manurung, 2005).

Effect of financial liberalization can be seen from two opposing sides. One side can strengthen financial sector development and lead to higher growth in long term due to influx of foreign capital, but on other hand it may encourage high risk taking due to higher competition, volatility of macroeconomic variables and often leads to onset of financial crisis in country concerned (Ranciere *et al*., 2006). Therefore, banks liquidation that has gone public can be detrimental to shareholders, including the public shareholders. Fundamental analysis has an important role for decision-making in rational investment. Traditionally, fundamental analysis is the main approach to analyzing stocks (Jones, 2000). It is based on premise that all investors should understand all rational aspects affecting stock prices as a basis for careful consideration to making an investment decision. Fundamental analysis learn everything from the economy and industry as a whole, financial condition and management condition of industry, which in turn can be used as a basis for valuation of a stock. Various factors may cause differences and changes in stock prices, Investors need to assess the difference between the stock price and factors affecting the stock price changes. Examining these various factors can be assessed by using the data base stock industry

Corresponding Author: Zakaria, University of Yapis, Faculty of Economics, Papua, Jayapura - Indonesia

affecting the financial performance of industry. Based on above description, this paper aims are:

1. Analyzing the effect of ownership concentration, loan to deposit ratio, and non-performing loans toward return on equity
2. Analyzing the effect of ownership concentration, loan to deposit ratio, and non-performing loans toward stock price index
3. Analyzing the simultaneous relationship of ownership concentration, loan to deposit ratio, and non-performing loans toward stock price index through return on equity

2. Theoretical Overview:

Consistent with banking theory, basic functions of bank is an intermediary function, raise funds from the public and distribute it in form of loans (Megginson, 1997; Diamond and Dybyig, 1986; Sinkey, 2002). Lending is a basic function in bank intermediary which can provide interest income (Naceur and Goaied, 2005). It is confirmed that credit is an important source of revenue for bank. Greater outstanding loans can increase interest income of bank. Meanwhile, loan to deposit ratio (LDR) shows how much ability to repay the withdrawal of funds by depositors to rely on loans. In other words, how much credit to customers can offset the obligations of bank to immediately meet the demands of depositors who want to withdraw money which has been used by banks to provide credit. LDR is an indicator of vulnerability and ability of a bank. Most practitioners agree that banking safe limit of LDR is about 80%. Therefore, better bank management in carrying out the intermediation functions can increase interest income received by bank (Kunt and Huizinga, 1999; Ahmed, 1999).

Intermediation functions of banks have risk in loan portfolio of non-performing loans (NPL). According to Joseph *et al*. (2012), non-performing loans have a negative effect on banks performance in terms of liquidity and profitability. Azeem *et al*. (2014) show that NPL has a negative correlation with financial performance as measured by return on assets (ROA) and return on equity (ROE). Majid *et al*. (2009) and Zouri *et al*. (2012) show positive relationship between ROE at market price on stock. ROE is an accounting measure from shareholders point of view. However, return on equity should not be considered as investment profitability as measured by dividend yield and yield of stock price changes. Models of return on equity gives an overall picture of banks performance regarding operating efficiency, asset utilization and debt usage because it consists of three components, profit margin, asset utilization, and equity multiplier. Therefore, analysis needs to be done to smooth the collectability of security has been provided to customer so that attitudes and ways of dealing with customers can be adjusted with smoothness of credit (Abdullah, 2003). Based on decree of Directors Board of Bank Indonesia, credit collectability is divided into five groups: performing loans, loans with special attention, substandard loans, doubtful loans and bad credit.

Gul *et al*. (2007) claim that ownership concentration affect toward stock prices. The influence depends on nature of entrenchment or alignment effect. Entrenchment effect is ownership concentration of majority shareholder to encourage organizations utilize resources for personal interests and limiting information to outside parties, including the minority shareholders. This situation will have negative reaction as indicated by decline in stock prices. Furthermore, alignment effect is ownership concentration encourages the majority shareholder to align their interests with minority shareholders.

3. Research Hypothesis:

Citing opinion of Jones (2000), fundamental analysis is main approach to analyze stocks. It can be interpreted that every investor should understand all aspects affecting stock prices as consideration for investment decision making. Fundamental analysis is used to assess the difference between the stock price and factors affecting the stock price changes. Examination these various factors can be assessed by data base stock industry affecting the financial performance of industry. Various factors can cause differences and changes in stock prices, among others related to economic conditions, industry as a whole, financial condition and industrial management. Differences and changes in return on equity (ROE) of banks listed on Indonesia Stock Exchange (IDX) can also be caused by a various factors, both internal and external. Internal factors relate to management of bank that effected by differences in ownership, human resource capability, operating location, size of bank, as well as philosophy in management of bank. These factors may affect on bank's operations.

One aspect of industrial management condition is bank ownership concentration. Earle *et al*. (2005) state that ownership concentration is measured by proportion of shareholding ownership by largest single shareholder. Banks with more concentrated ownership have greater chances choose management in accordance with expectations. Furthermore, owner more able to exercise control over the management. Owner intensity to control management will affect on management or daily technical operation and utilization of organizational resources by management. More intensive management control by owner is expected to be more efficient in execution of day-to-day operations. However, ownership concentration may also adversely affect on performance because too much intervention in management could undermine efforts and innovative management actions (Grosfeld, 2006). The aspects related to financial conditions are return on equity, loan-to-deposit ratio, as well as non-performing loans. Bank's main source of funding comes from

third-party funds. Compared to other funding sources, third party funding is advantageous because it is routine and relatively lower cost (Megginson, 1997). However, credit is the main activity of banks (Siamat, 1993), so that by using the loan to deposit ratio (LDR) we can compare the whole bank loans with funds received by bank. LDR is also an indicator of vulnerability and ability of a bank. Bank success in intermediation function is not only measured by credit growth and third party funds growth, but should also assess the extent of non-performing loan (NPL). Based on Bank Indonesia Circular Letter No. 7/10 / DPNP / 2005, NPL measure the growth nonperforming loans to total loans disbursed by bank. NPLs affect the amount of net interest margin. Presence of NPLs may reduce the net interest margin.

Based on above explanation, research conceptual framework is shown in Figure 1. Research hypotheses are shown below.

H1: Bank ownership concentration has a positive effect toward return on equity

H2: Bank ownership concentration has negative effect toward stock price index

H3: Loan to deposit ratio has positive effect toward return on equity

H4: Loan to deposit ratio has positive effect toward stock price index

H5: Non-performing loans has negative effect toward return on equity

H6: Non-performing loans has negative effect toward stock price index

H7: Return on equity has positive effect toward stock price index

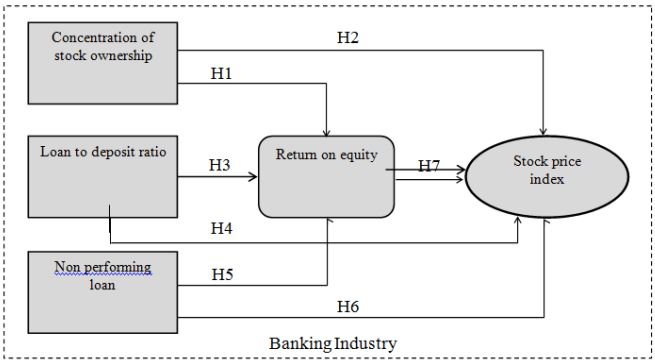

Fig. 1: Conceptual model of research.

4. Methodology:

Variable measurement:

Data observation in this study is ex post facto because researchers cannot control or manipulate the research variables, and only present what had happened. Further causality testing is done to analyze the effect of independent variables on dependent variable. Variables measured in this study were developed by adopting some research and relevant references. Technically, operational definition of measurement variables are explained in Table 1.

Table 1: Operational definition of measurement variables.

Variable Measurement	Concept
Bank ownership concentration (X1)	Proportion of bank ownership by largest single shareholder, either individual and institutional expressed in percent (%) of banking stocks listed on Indonesia Stock Exchange
Loan to deposit ratio (X2)	Ratio of total outstanding loans with funds received by banks expressed in percent (%)
Non performing loan (X3)	Ratio of nonperforming loans to total loans disbursed and expressed in percent (%)
Return on equity (Y1)	Ratio of net income to bank's core capital expressed in percent (%)
Stock price index (Y2)	Ratio of stock market price of initial price of stock concerned and expressed in percent (%)

Data collection:

This study is data observation to examine characteristics or phenomena object of study population represented by 30 banks, government and private banks in banking industry in Indonesia. Secondary data were obtained from the Indonesian Capital Market Directory 2009-2013, Central Bureau of Statistics, Bank Indonesia, and Jakarta Stock Exchange website. Data required are: a) percentage of bank ownership concentration, b) percentage of loan to deposit ratio obtained from periodic financial reports of banks submitted to Bank Indonesia, c) percentage of non-performing loans obtained from Bank Indonesia, d) Return on equity obtained from Bank Indonesia based on periodic reports of banks, e) price of bank stock listed on Indonesia Stock Exchange. Data collection period is from February to May 2014. Characteristics of measurement samples are described in Table 2. Table 3 shows the data the average value and standard deviation of each variable measured on bank samples for bank ownership concentration (X1), loan to deposit ratio (X2), non-performing loan (X3), return on equity (Y1) and stock price index (Y2).

Table 2: Technical characteristics of data samples.

No	Code	Banking Industry	No	Code	Banking Industry
1	BBNI	Bank Negara Indonesia (Persero)Tbk	16	BNBA	Bank Bumi Arta Tbk
2	BBRI	Bank Rakyat Indonesia (Persero) Tbk	17	BNGA	Bank CIMB Niaga Tbk
3	BBTN	Bank Tabungan Negara (Persero)Tbk	18	BNII	Bank Internasional Indonesia Tbk
4	BMRI	Bank Mandiri (Persero) Tbk	19	BNLI	Bank Permata Tbk
5	BJBR	BPD Jawa Barat dan Banten Tbk	20	BSIM	Bank Sinarmas Tbk
6	AGRO	Bank Rakyat Indonesia Agroniaga Tbk	21	BSWD	Bank on India Indonesia Tbk
7	BABP	Bank ICB Bumi Putera Tbk	22	BTPN	Bank Tabungan Pensiun Nasional Tbk
8	BACA	Bank Capital Indonesia Tbk	23	BVIC	Bank Victoria Internasional Tbk
9	BAEK	Bank Ekonomi Raharja Tbk	24	INPC	Bank Artha Graha Internasional Tbk
10	BBCA	Bank Central Asia Tbk	25	MAYA	Bank Mayapada Internasional Tbk
11	BBKP	Bank Bukopin Tbk	26	MCOR	Bank Windu Kentjana Internasional Tbk
12	BBNP	Bank Nusantara Parahyangan Tbk	27	MEGA	Bank Mega Tbk
13	BDMN	Bank Danamon Indonesia Tbk	28	NISP	Bank OCBC NISP Tbk
14	BEKS	Bank Pundi Indonesia Tbk	29	PNBN	Bank Pan Indonesia Tbk
15	BKSW	Bank QNB Kesawan Tbk	30	SDRA	Bank Himpunan Saudara 1906 Tbk

Tabel 3: Description of masurement variables.

No	Measurement variables	Minimum	Maximum	Mean	Std. Deviasi
1	Bank ownership concentration (X1)	15.02	98.98	57.48	20.34
2	Loan to deposit ratio (X2)	13.68	112.97	77.13	15.66
3	Non performing loan (X3)	0.14	20.51	2.97	2.63
4	Return on equity (Y1)	- 6.57	23.21	9.61	5.80
5	Stock price index (Y2)	43.08	952.94	218.31	178.18

Confirmatory Factor Analysis:

Structural equation modeling (SEM) with maximum likelihood method and AMOS 16.0 statistical software (Anderson and Gerbing, 1988) are used to test feasibility of data conformity with structural model and estimated by standardized regression weights. Structural model fit is good if chi-square is small and non-significant at $\alpha = 0.05$; the probability value ≥ 0.05; CMI / DF ≤ 2.00; GFI, AGFI, TLI, and CFI NFI ≥ 0.90; and RMSEA ≤ 0.80. Results of confirmatory factor analysis show very good fit models, as shown in Table 4.

Table 4: Comparison of model fit with cut-off value.

Criterion	Fit index	*Cut-off Value*	Desc.	Criterion	Fit index	*Cut-off Value*	Desc.
Chi-square	0.217	Small	Good	GFI	0,999	≥ 0,90	Good
Probability	0.641	≥ 0,05	Good	AGFI	0,991	≥ 0,90	Good
RMSEA	0,000	≤ 0,08	Good	CFI	1.000	≥ 0,90	Good
CMIN/DF	0.217	≤ 2,00	Good	TLI	1.092	≥ 0,90	Good

5. Research Findings:

Hypothesis testing results (Table 5) with structural equation models (figure 2) and using AMOS 16 software shows that bank ownership concentration (X1) does not affect toward return on equity (Y1). Adversely, loan to deposit ratio (X2) and non-performing loans (X3) significantly affect toward return on equity, respectively at p value of 0.005 and 0.000. Bank ownership concentration (X1), loan to deposit ratio (X2) and non-performing loans (X3) have significant effect toward stock price index (Y2), respectively at p value of 0.047, 0.010 and 0.019. Furthermore, return on equity (Y1) also has significant effect toward stock price index (Y2) at p value of 0.000. With reference to test results (Table 5), it shows that the relationships are significant at 95 percent confidence level. In other words, structural equation for return on equity and stock price index reveals that 95 percent of variance can be explained by effect of bank ownership concentration, loan to deposit ratio and non-performing loans. In this case, effect of return on equity toward stock price index is an intervening variable.

Table 5: Testing results the effect between variables.

Exogen variables	Endogen variables	Coefficient	C.R.	Prob.	Description
	Return on Equity (Y_1)	0.050	0.652	0.514	Insignificant
Loan to Deposit Ratio (X_2)		0.211	2.819	0.005	Significant
Non Performing Loan (X_3)		-0.366	-4.873	0.000	Significant
Bank ownership concentration (X_1)	Stock price index (Y_2)	0.142	1.986	0.047	Significant
Loan to Deposit Ratio (X_2)		0.185	2.569	0.010	Significant
Non Performing Loan (X_3)		-0.178	-2.345	0.019	Significant
Return on Equity (Y_1)	Stock price index (Y_2)	0.318	4.138	0.000	Significant

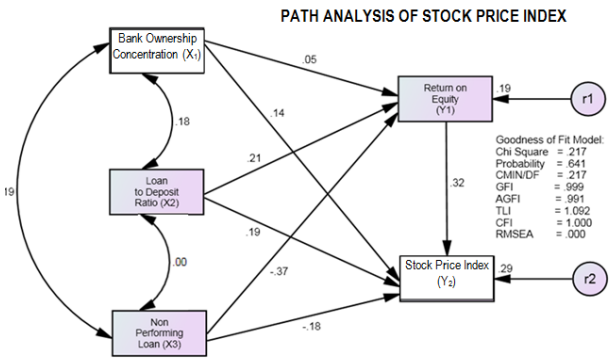

Fig. 2: Model testing overalls.

6. Discussion:

Analysis for five variables of bank ownership concentration, loan-to-deposit ratio, non-performing loans, return on equity, and stock price index show solutions to explain effect between these variables, as shown in Table 5.

• Effect of bank ownership concentration, loan to deposit ratio and non-performing loans toward return on equity:

Hypothesis testing results show that bank ownership concentration (X1) does not affect toward return on equity (Y1). Adversely, loan to deposit ratio (X2) and non-performing loans (X3) have significant effect toward return on equity (Y1). These test results indicate that partially return on equity in banking industry is strongly affected by loan to deposit ratio (LDR) and non-performing loan (NPL).

In other words, how much credit to customers can offset the obligations of bank to immediately meet the demands of depositors who want to withdraw money. Level of risk in loan portfolio also will have an effect on financial banks performance . These findings confirm the research results of Joseph *et al*. (2012) that non-performing loans have a negative effect on banks performance in terms of liquidity and profitability. Azeem *et al*. (2014) show that NPL has a negative relationship with financial performance as measured by return on assets (ROA) and return on equity (ROE). While the bank ownership concentration, which is measured by proportion of shareholding ownership by largest single shareholder, does not affect toward return on equity.

• Effect of bank ownership concentration, loan to deposit ratio and non-performing loans toward stock price index:

Test results of hypothesis show that bank ownership concentration (X1), loan to deposit ratio (X2), and non-performing loans (X3) significantly affect toward stock price index (Y2). These test results indicate that partially stock price index of banking industry is strongly affected by ownership concentration , loan to deposit ratio (LDR) and non-performing loan (NPL). Banks with concentrated ownership give greater chances of bank owners to choose the appropriate management with hopes to exercise control over the management. More intensive management control by owner is expected to create more efficient in execution of day-to-day operations. However, ownership concentration may also adversely affect the performance because too much intervention in management by owner could undermine efforts and innovation of management actions (Grosfeld, 2006). While the effect of LDR and NPL related to how much credit to customers can offset the bank's obligation to immediately meet the demands of depositors who want to withdraw money which has been used by banks to extend credit, as well as the level of risk in loan portfolio will affect on financial banks performance .

• Simultaneous relationship of bank ownership concentrations, loan to deposit ratio, and non-performing loans through a return on equity of stock price index:

Hypothesis testing results also show that return on equity (Y1), an intervening variable, has significant effect toward stock price index (Y2). These test results give a picture of bank's performance regarding the efficiency of operations, asset utilization and debt usage affect toward stock price index. These findings support opinion of Majid *et al*. (2009); and Zouri *et al*. (2012), that there is a positive relationship between ROE at market toward stock price. This test results also confirms the simultaneous effect of bank ownership concentration (X1), loan to deposit ratio (X2), and non-performing loans (X3), through an intervening variable of return on equity (Y1), toward stock price index (Y2).

7. Conclusions:

This study results provide practical implications for top management in banking industry to be able to understand factors to increase the bank stock price index at stock exchange. Management of banking industry should give attention to bank ownership concentrations, loan-to-deposit ratio, a non-performing loans and return on equity to increase the value of company. This study limitation is the samples only in banking industry listed toward stock

exchange so the findings cannot be generalized to other banking industry. Therefore, further study is recommended to fill this gap in order to strengthen the results of this study.

REFERENCES

Abdullah, Faisal, 2003. "Manajemen Perbankan, Teknik Analisis Kinerja Keuangan Bank", Edisi Pertama, *UMM Press*, Yogjakarta.

Anderson, J.C. and D. Gerbing, 1988. "Structural modeling in practice: a review and recommended two-steps approach", *Psychological Bulletin*, 103(3): 411-23.

Azeem., Amir and Amara, 2014. "Quantum of Non Performing Loans".

Bank Indonesia, 2000. "Peraturan Bank Indonesia No.2/27/PBI/2000 tentang Bank Umum".

Bank Indonesia, 2006. "Peraturan Bank Indonesia No.8/16/PBI/2006 tentang kepemilikan tunggal pada Perbankan Indonesia"

Bekaert, Geert and Campbell, R. Harvey, 2005. "Christian Lundblad, Does Financial Liberalization spur Growth?", *Journal of Financial Economics*, 77: 3-56

Diamond, W., Douglas and Philip H. Dybvig, 1986. "Banking theory, deposit insurance and bank regulation", *The Journal of Business*, 59(1): 55-68.

Earle, S., John, Csaba Kucsera and Almons Telegdy, 2005. "Owenership Concentration and Corporate Performance on the Budapest Stock Exchange : Do too many Cooks Spoil the Goulash?", *Corporate Governance*, Vol.13, No.2, pp.1-11.

Gul, A., Ferdinand, Jeong-Bon Kim and Aini Qiu, 2007. "Ownership Concentration, Foreign Shareholding, Audit quality and Firm-specific Return Variation:Evidence from China", *Hong Kong Politechnic University-School of Accounting and Finance and Citigroup Japan Inc*, Working Paper Series, 1- 37.

Grosfeld, Irena, 2006. "Ownership concentration and firm performance: evidence from an emerging market", *William Davidson Institute Working Paper Number*

Hadad, D., Muliaman, Agus Sugiarto, Wini Purwanti, M. Jony Hermanto, Bambang Arianto, 2003. "Kajian mengenai struktur kepemilikan bank di Indonesia", *Bank Indonesia.*

Jones, P., Charles, 2000. "Investments, Analysis and Management", 7th edition, *John Wiley & Sons*

Joseph, Mabveere Tendai, Gwangwana Edson, Faltira Manuere, Mutibvu Clifford and Kamayo Michael, 2012. "Performing Loans in Commercial Banks : A Case of CBZ Bank Limited in Zimbabwe".

Kunt-Asli Demirguc and Enrica, Detragiache, 1998. "The determinants of banking crices: evidence from developed and developing countries", *IMF Staff Papers*, 45.

Kunt-Asli Demirguc and Huizinga, Harry, 1999. "Determinants of commercial bank interest margins and profitability: some international evidence", *The World Bank Economic Review*, 13(2): 379-408.

Manurung, Adler, 2005. "Pasar Modal Indonesia Menuju Bursa Kelas Dunia". *Elex Media Komputindo*, Jakarta gramedia.

Majed, Abdel Majid, Kata, Mukhhled Ahmed and Firas, Naim Dahmash, 2009. "The Ralationship betwen the ROA, ROE and ROI rations with Jordanian Insurance Public Companies Market Share Prices."

Megginson, L., William, 1997. "Corporate Finance Theory", *Addison-Wesley*

Naceur, Sammy Ben and Goaied, Mohamed, 2005. "The Determinants of Commercial Bank Interest Margin and Profitability: Evidence from Tunisia", *IHEC Carthage Working Paper Series*, 2-23.

Ranciere, Romain, Aaron Tornell, Frank Westermann, 2006. "Decomposing the effect of financial liberalization: crisis vs growth", *Journal of Banking and Finance*, 30: 3331-3348.

Riyadi, Slamet, 2007. "Banking assets and liability management", Edisi Ketiga, *LPFE Universitas Indonesia*

Siamat, Dahlan, 1993. "Manajemen Bank Umum", Cetakan Pertama, *Intermedia Jakarta*,

Sinkey Jr, Joseph, F., 2002. "Commercial Bank Financial Management in the Financial Services Industries", 6th Edition, *Prentice Hall*

Zouri, Sarra ben Slama and Neila Boulila Taktak, 2012. "Owenership Structure and financial Performance in Islamic Banks"