JGPG (2017) 6: 45-63
DOI 10.14666/2194-7759-6-1-004

PAPER

Islamic Accounting and the Impact of Accounting Ratios on the Islamic Banks' Share Prices

Carlo Mastrosimone

Abstract The aim of this article is to investigate the role of the accounting regulation for the Islamic financial system, how Islamic banks have to account their investments, according to the Shari'ah law, and how they consider their financial assets. In addition, financial statement, and its relative accounting ratios, has become an integral part in the investment choices, thus, determining potential oscillations of the stock price of banks and companies. Moreover, the article will consider the share price of Islamic banks listed in the Bahrain Bourse, during the years 2009 – 2014, and accounting ratios such as Return on Assets (ROA), Return on Equity (ROE), size of the firm and debt ratio, in order to understand their impact on the share price. A theoretical analysis develops the knowledge about the Islamic sector by analysing the main financial instruments and how Islamic banks must account for, and why the accounting regulation is an important part of this field. In addition, the main Islamic standards will be examined in order to understand and describe in a proper way the environment in which the research is rooted.

Finally, a quantitative analysis will be performed by using the panel data analysis in order to investigate the effect of the selected accounting ratios on the share price. In this particular case the Random Effect Model is deemed to be the best model for this research. The final results show that ROA, debt ratio and share price are characterised by a positive relationship, whereas firm size and share price are linked by a negative relationship.

Keywords AAOIFI - Islamic Banks - Share Price - Islamic Accounting - Profit and Loss Sharing - Panel Data Analysis - Random Effect
Jel classification C33

1. The Islamic system

Financial practitioners, researchers, and in particular financial newspapers are often tempted to use the word "globalization" for the financial system. Often it seems difficult to demonstrate that there is no connection in the financial industry among different countries and follow the same rules all over the world. However, it is of paramount importance to clarify that the Islamic financial sector is ruled by a different set of principles compared with the conventional system. The most important principles of the Islamic system are the concepts of "riba", the

Carlo Mastrosimone (✉)
University of Leicester, United Kingdom
e-mail: mastrosimonecarlo@gmail.com

sharing of the profits and losses (PLS), and zakat. Firstly, riba is the application of interest which is forbidden in accordance with the Islamic law (Shari'ah). Due to this rule, the financial and bank industry cannot impose and receive interest as compensation for their investments. In addition, the second principle affirms that the bank is considered a shareholder and participates in the financing of several projects and must bear losses or profits (Dar H. A. and Presely 2000). As a result, this principle also governs the relationship between investors and the bank. Another significant difference with the conventional system is the presence and calculation of the zakat, which is a form of tax applied on unused wealth, and in general is around 2.5% per annum (Olson and Zoubi 2008). Moreover, the Islamic financial institutions are not characterized by lending money because they try to make their profits by acting as an agent or by purchasing commodities on behalf of their customers or by entering in joint venture business with other investors.

All these differences are also reflected in the Islamic accounting system, in the necessity to adopt different accounting approaches. The difference between conventional and Islamic accounting is that the former is based on economic rationalism which includes principles of individualism, profit maximization and self-interest; whereas the latter is based on the principles of the unity of God, which include community interest, reasonable profits and equity (Velayutham 2014). In the Islamic accounting, it is permissible to shift from the classical revenue-expense approach to an Islamic approach assets-liabilities in the determination of the incomes (Gambling and Karim 1991). In addition, the differences are originated from peculiar consideration of the concept of the "time value of money", according to which it is inappropriate to charge any kind of interest. In addition, a transaction that is not based on trade must be considered a purely financial transaction which is not allowed in the Islamic finance (AOSSG 2010).

The aim of this article is to analyse the Islamic financial and bank system from a different perspective such as the Islamic accounting system. It seems to be extremely important to understand how a different economic and financial system works and what kind of accounting rules must be adopted. By looking at the history of the Islamic banking and accounting the first aim was to comply with the Islamic ethics and in order to do so, due to the diversity of the Islamic contracts and business, there was a need for specific Islamic standards. Now, with the exponential growth of the Islamic financial institutions, the main problem is to understand the Islamic accounting system and its standards that separate the Islamic environment from the rest of the international system.

Harahap (2003) affirms that the action of the Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI) is extremely important and this organization represents the foundation for the future development of a common Islamic accounting system. However, Mohammed et al. (2015) state that by working with two different accounting standard systems it is impossible to consolidate the financial reporting of Islamic banks that operate in more than one country. Financial reporting is the translation of the business operations of an entity, which provides qualitative and quantitative information to its users, especially to the investors. For the users to make better financial decisions it is imperative to understand under which accounting rules and convention the financial statement has been prepared and the potential issues related to it.

2. Islamic accounting: state of art

Despite the constant and significant development of the Islamic finance, the literature around the topic of the Islamic accounting is still at the beginning stage due to the fact that there is a lack of use and acceptance of the Islamic accounting standards around the world (Haniffa and Hudaib 2010). By analysing the literature on this topic, it seems important to start with the definition of accounting. As reported in Ahmed et al. (2016, pag. 191), accounting is defined as "the process of

identifying, measuring and communicating economic information to permit informed judgement and decisions by users of that information". From this definition, it is possible to deduce that accounting, and the financial statement, is the only way in order to spread the knowledge and how business has been run by the management, by using qualitative and quantitative description of the business itself. When this definition is applied to the Islamic system, it is important to consider the compliance with the Shari'ah law, the prohibition of any kind of interest and the ban of any speculative behaviours. Napier (2009) and Hayoshi (1989) analyse the meaning of accounting in the context of the Islamic culture, defining that Islamic accounting can be considered as a pool of principles, guidelines, a way of considering accounting figures according to the rules expressed through the Islamic law (Hayoshi 1989). On the other hand, Al Khadash (2001) defines Islamic accounting as "the process of identifying, measuring and communicating the legitimacy of financial activities to be useful in making decisions, calculating zakat as well as calculating the right profit of Islamic investment operations based on its rules" (Al Khadash 2001, pag. 26). However, this definition, which can be considered as a merge of the two definitions reported above, is more concerned about the quality and the religious dimension of the accounting's role. These researches can be considered the most important works on the definition of the Islamic accounting which tries to merge financial communication with the religion.

On the other hand, the Islamic worldview is different from the Western worldview and this lead to a different interpretation of the economic and financial reality. As stated by Ibrahim and Yaya (2005) there are three main reasons that lead to the inappropriateness of the Western accounting system in relation to the Islamic model such as (i) discrepancy with the Islamic prescriptions, (ii) discrepancy with the Islamic accounting objectives, (iii) neglect the Islamic socio-economic objectives. Moreover, there are three main objectives for the Islamic accounting such as (i) decision usefulness, (ii) stewardship and (iii) accountability (Ibrahim and Yaya 2005, pag. 82). In the Islamic view, the concept of stewardship descends from the relation among the human being and God, according to which the mankind must manage and use the properties in an effective way and with responsibility, also towards the rest of the society. This point of view has been translated into the separation of ownership and capital, and the managers are considered the steward who must act in a responsible way. Moreover, the financial statement is considered the way of demonstrating that the managers are acting in accordance with honesty and reliability in managing a company (Ibrahim and Yaya 2005). Conversely, the concept of accountability can be translated into the relationship among principal and agent. The agent will be considered responsible for his/her choice and must provide accounts of those choices (Ibrahim and Yaya 2005).

Moreover, in the literature, it is possible to find other interpretations and considerations of the Islamic accounting objectives. Three objectives have been recognised for the Islamic accounting by Haniffa and Hudaib (2002) such as (i) the necessity to achieve a socio-economic justice, (ii) to achieve the obligations to Allah and the community; (iii) all of them in order to obtain the rewards in this life and hereafter. However, as reported by Haniffa and Hudaib (2010), the Islamic accounting has an important role in "(i) providing assurance to users of accounting information through proper recording and disclosure that transactions do not contravene Shari'ah principles and (ii) ensuring that resources are allocated fairly through proper measurement and recognition of assets, liabilities, revenues and expenses" (Haniffa and Hudaib 2010, pag. 6). However, as reported by Ibrahim (2007) the Islamic financial institutions need different accounting standards because "Islamic financial institutions are not based on the capitalistic worldview which underlies the current International Financial Reporting Standards (IFRS) […], Islamic accounting is based on an accountability cum Shari'ah compliance framework which seeks to determine the rights and obligation of all interested parties, including those rights and obligations resulting from

incomplete transaction and other events, in accordance with the principles of the Shari'ah and its concept of fairness, charity, and compliance with Islamic business value" (Ibrahim 2007, pag. 5, and AAOIFI 2010, SFA No. 1).

Unfortunately, all these studies scarcely went beyond the social dimension (Kamla et al. 2006). As stated by Haniffa and Hudaib (2002) one of the main weakness of Islamic accounting studies is that accounting must provide financial information rather than achieve a sort of social justice. On this issue, Kamla (2009) critically affirms that there are also other elements that belong to the Islamic accounting practices and must be considered.

In fact, regarding the accounting method, Mirza and Baydoun (2000) affirm that historical cost accounting method is deemed as a high reliable source of information in describing company's assets, debt, cash and other operations. However, Ibrahim and Yaya (2005) affirm that the current valuation should be the best way in order to report accounting figures because it takes into consideration the future realizations of a past investments.

Moreover, as mentioned by Karim (2001), there are different ways of accounting for investment accounts. In fact, there are three different ways such as account them on-balance sheet, off-balance sheet and the third approach is to treat investment account as "fiduciary" account. The reason why Islamic banks record investment accounts on-balance sheet is because they are considered simply as equity and are identified as participating shares or are considered simply as assets. On the other hand, banks, which report investment accounts off-balance sheet or as "fiduciary", affirm that these funds cannot be considered as bank's assets, but they manage them on behalf of the investors and for this reason they are not reported in the balance sheet. However, the AAOIFI is encouraging the Islamic financial institutions to consider these funds as banks' asset because in general they will be invested through profit and loss sharing agreements (PLS) and for this kind of contracts the AAOIFI allows banks to create provisions and reserves in order to limit potential losses.

By moving forward, another group of researchers has focused their attention on the different types of Islamic financial contracts and their implication from the accounting point of view. Studies conducted by Abdul Rahman (2003) and Salah (2010) focus their attention on the analysis of the Sukuk and how they are classified, how Islamic financial institutions report and measure them in the financial statement. This analysis is made by considering the Islamic Financial Accounting Standard No. 17 issued by the AAOIFI regarding investment, by looking at the differences with the conventional products. This researches conclude that the Islamic financial industry is different from the conventional financial industry and for this reason the former needs a special environment where a particular set of standards must be developed and increased. The accounting implications will be discussed in details in the next section of this research.

Tomkins and Karim (1987), Saddiqui (2003), Vinnecombe (2010), and Atmeh and Ramadan (2012) concentrate their attention on problems related on one of the most important PLS contract, the mudarabah contract. After a deep description of this type of financial agreement, they focus their attention on the different ways of reporting the mudarabah in the balance sheet, because some Islamic banks record this tool as a liability, others as an asset. In addition, the same treatment is valid also for the musharakah contract and wakalah contract, both belong to the PLS category (Maurer 2002, Archer and Karim 2009, and Salah 2010)

On the other hand, Ahmed et al. (2016) focus their attention on the murabah contract, which is the most important contract that it is not based on the PLS principles but on the mark-up principle. In addition, the criticism is related also on how the AAOIFI has decided to discipline this contract by issuing the standard on murabah financing. According to Ahmed et al. (2016), there are many weak points in the standard that can allow accounting managers to play with the

accounting figures and mislead the users of the financial statement.

In the financial and accounting literature there is a huge number of researches that have investigated the presence of the practices of the income smoothing, but it seems difficult to find researches on this topic that have used non – American banks and in particular Islamic banks. However, this topic is the main objective of the research conducted by Taktak et al. (2010) due to the fact that the Islamic accounting standards, and in particular the Islamic Financial Accounting Standards No. 11, encourage the creation of provisions and reserves in order to limit potential losses from investments based on the mudarabah contract. However, Taktak et al. (2010) by using a sample composed of sixty-six Islamic banks have reached the conclusion that Islamic banks are characterized by earnings management and by smoothing their results, but it is also clear that 75% of these financial institutions do not use loan losses provisions. For this reason, can be likely considered that banks can use other figures in order to reach their main objectives. In fact, Islamic accounting allows the banks to create profit equalization reserves (PER) and investment risk reserves (IRR). However, as explained earlier, it is possible to imagine that these provisions and reserves could also be used in order to smooth the financial result at the end of the financial period. In fact, Zoubi and Al-Khazali (2007) and Ismail and Be Lay (2002) have conducted different researches on earnings management by reaching the same conclusion that it is a typical behaviour that banks in Malaysia and in the GCC area often use loan provisions in order to alter their financial situation.

2.1 Studies on the effect of accounting ratios on the share price

After giving an overview of the main studies conducted on the topic of the Islamic accounting, the aim of this second part will be to provide an exhaustive analysis of the literature related to the impact of accounting ratios on the share price of a company.

Related to this topic, Ahmed and Khababa (1999) have used the main accounting ratios as Return on Equity (ROE), Return on Assets (ROA) and Earning per Share (EPS) as the main yardstick in order to measure the banks' profitability, by affirming that these important ratios are considered by the investors during their investment decision and by observing an influence on the value of the shares traded in the market.

Another important research is conducted by Kabajah and Nu'aimat (2012), and the main aim is to find out the level of explanatory power of the main accounting ratios such as ROA, ROE and Return on Investment (ROI) against the market share price of insurance companies in Jordan during the years 2002 – 2007. Kabajah and Nu'aimat (2012) construct their research by running four different regression model and show that by regressing ROA, ROE and ROI against the share price there is a positive relationship between ROA, ROE and share price. On the other hand, ROI and share price are linked by a negative relationship with a negative coefficient. In addition, the overall adjusted R-squared is 0.459 or 45.9%, thus, the three accounting ratios can explain 45.9% of the movement of the share prices. A similar result is obtained by running singular regression analysis but in this case only the ROE, considered alone, is not significant with a 0% of adjusted R-squared.

On the same wave, also Dehuan and Zhenhu (2008) focus their attention on the relation between the general performance of a company considered by the interpretation of ROE, EPS, ROA, total asset turnover, in relation to the price of the companies' stock with a particular attention to the Shanghai Stock Exchange. Also in this case the final result shows that the accounting figures have an explanatory power on the share price.

Furthermore, in their analysis, Issah and Ngmenipuo (2015) uses a panel data analysis by regressing market data share price as dependent variable and ROE, ROA and ROI for each firm

listed in Ghana during the period 2009 – 2013. The final results show that the ROA and ROE have a good explanatory power on the value of the share price, and they can explain around 20.1% of the movement of the share price even if the ROE has a more important explanatory power than ROA.

Moreover, also the Saudi market has been the object of a study conducted by Abdallah (2014), who focuses his attention on 46 industrial companies which shares are traded in the Saudi Stock Market between the years 2009 – 2012. This analysis is done by considering as independent variables financial structures, profitability and leverage and as the dependent variable the share price. The final results show that only ROE and capital structure are able to influence the share by having a positive relation.

A different result was obtained by Menaje (2012), who tries to find a relationship between EPS, ROA and the trend of the share price by detecting 50 companies listed in the Philippine Stock Market. The final output showed that there is an important positive correlation between EPS and share price, but this is not true between ROA and share price because they are characterized by a negative and weak correlation.

A recent study, conducted by Abba and Suleiman (2016), is based on the analysis of 5 pharmaceutical companies listed in the Nigerian Stock Exchange during the year 2004 – 2013. As dependent variable is considered the stock price while as the independent variable they have considered the ROE, liquidity, the firm growth and the level of leverage. From their output, it is possible to observe that the ROE is able to influence the share price with an increment of 61.23% for every 1% in ROE's growth. In addition, only the level of liquidity has no disturbance on the share price while the other figures have reported a good impact on the value of the share price.
In addition, Abu Shanab (2008) has investigated if there are any relations between the returns and risk on the share price in Jordan among public industrial companies from 2000 to 2007. The final result shows that the share price is not affected by returns, risk and also dividends, although there is a good relationship between the price of share and the level of cash flow.

A different result is obtained by Al Kurdi (2005) who analyses a sample of hundred and ten public companies in Jordan from the year 1994 to 2004, by regressing accounting information against the share price. The final results show that there is a relationship between share prices and public accounting data. Similar results have been obtained by Abu Hasheeh (2003) who shows that there is a positive relationship between the share price and ratios between the net profits to equity, assets and dividends.

On the other hand, according to Glezakos et al. (2012) there is a relationship between the share price and EPS and book value per share of thirty-eight Greek companies, listed in the Athens Stock Exchange, from the year 1996 to 2008. The study shows that the explanatory power of the accounting figures has an upward trend during this period of time and it is possible to say that during the analysis of the share price the investors are more concentrated on the fundamentals of the company than on the market data.

On the same line, Safdar et al. (2013) analyse whether the share price of 307 companies, which trade their shares in the Karachi Stock Exchange, can be affected by financial figures as market capitalization, EPS, sales growth during the period 2000 - 2012. By using a regression model, the final output shows that all these firms' figures have an impact on the trend of the share price.

Even more, Nirmala et al. (2011) describe the effect, by using a panel data analysis, on 3 Indian sectors such as public sector, healthcare and automotive sector of P/E, leverage and dividend on the price of the share of the companies included in the sample during the years 2000 - 2009. In this case, only the profitability figures of the companies have no effect on the price of the automotive sector's shares.

3. Methodology and Data

As described above, the existing literature on Islamic accounting and the impact of the main accounting ratios on the share price shows how the Islamic banks have to account for their financial instruments and whether there is an impact on the share price due to the analysis of the main accounting figures in different industrial sectors.

The second part of the article is more quantitative oriented, and it is focused on the impact of the selected accounting ratios, such as Return on Assets (ROA), Return on Equity (ROE), firm size and debt ratio, on the share price of the Islamic banks considered in the research.

This section includes the description of the data collection, what kind of sources have been used, what kind of methodology have been used in order to describe the impact of the independent variables on the dependent variable, description and interpretation of the final results will be included in the last part.

3.1 Sample and Data

The sample employed in this article is composed of a panel data originated by observing 6 commercial Islamic banks listed in the Bahrain Bourse from 2009 to 2014. The decision to develop this research during this period of time is due to the will to avoid the financial crisis that shook the global system since 2007, and due to the data availability. The sample size is limited to 6 Islamic banks for several reasons. First of all, the aim of this article is to analyse Islamic banks which comply with the Islamic accounting standards issued by the Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI), and in the Bahrain Bourse only 6 banks out of 8 adhere to the AAOIFI's standards.

Secondly, the aim is to analyse Islamic commercial banks because they use the majority of the Islamic financial products, such as "mudarabah" and "musharakah" contracts, which belong to the profit and loss sharing (PLS) agreement, "murabah" agreement, which is a mark-up contract, "ijaharah" contract or leasing and "sukuk", known as Islamic bonds.

Thirdly, the sample size is limited to Bahrain because the Kingdom of Bahrain is the most important country in the field of the Islamic accounting standards and it is considered as the hub of the Islamic finance and where the majority of the Islamic institutions were born, such as the International Islamic Financial Market (IIFM), the Islamic International Rating Agency (IIRA), the AAOIFI and the General Council for Islamic Banks and Financial Institutions (Serea, 2012). What is more, the Islamic accounting standards are not compulsory in every Islamic country, but they are adopted only in Bahrain, Pakistan, Syria and Sudan. Due to the international situation, Syria cannot be considered because of its state of war, Pakistan has created an Islamic index only in 2015, thus, there is a huge lack of information, and also Sudan is characterized by a lack of information as well as a lack of reliability.

The data employed in this article are divided into two groups. The first group is composed of data that will be considered as independent variables, and they are the main accounting ratios, such as ROA, ROE, the size of the firm and the debt ratio. They have been collected in two different ways. First of all, ROA and ROE have been downloaded from Bloomberg. This choice is due to the fact that Bloomberg provides the methodology used in order to compute each accounting ratio and by doing so it is possible to limit any potential distortion and they are more reliable. Secondly, the size of the firm and the debt ratio have been calculated by analysing the financial statement of each bank from the period 2009 – 2014. At the time of data collection, the financial statement for the year 2015 was not available for all the banks included in the sample. The second group is composed by the daily share price, and considering its logarithm, of each

bank in the sample for the years 2009 – 2014. Moreover, due to the fact that the accounting ratios are annual figures, the annual average logarithm share price has been calculated in order to create a well-organized panel data. The logarithm share price is considered as the dependent variable.

3.2 The importance of the independent variables

The majority of the previous researches, described above, in order to analyse the impact of the accounting ratios on the share price have considered the main profitability ratios such as ROA and ROE and other accounting ratios between the Earnings per Share (EPS), firm size, Return on Investment and so on.

In addition, as reported by Taktak et al. (2010) and Iqbal (2001) when Islamic banks decide to invest in a specific project it will be considered as a partner and must bear potential risks due to the nature of the business, thus, the ROE will be higher if compared with conventional banks. Besides, the principle of profit and loss sharing will provide the advantage to amortise potential and unpredictable movement in the ROA (Hutchison and Cox 2006, and Taktak et al. 2010).

For a company, it seems to be important the relationship existing between the capital structure and the ROE. Adjustment in the capital structure is extremely important because, in particular a bank, it is subject to changes in its level of debt and equity, and its relative cost of debt and equity. The balance between the level of equity and the level of debt is important also from the point of view of the shareholder because a high levered bank is riskier and, as a consequence, an investor will require a high return on investing in the bank's capital (Al-Kayed et al. 2014).

In addition, also the size is an important figure, although Islamic banks are in general small, but the size can be considered as signal of its market competitiveness and ability to diversify their investments, and of course a big bank can be considered by the investors as safer than a small bank (Hutchison and Cox 2006).

The ROA is a measure of efficiency based on the ability of the company to generate profits by using the total assets, whereas the ROE is a measure of the rate of return that shareholder will get by investing in the company (Kabajah and Nu'aimat 2012). In addition, in the bank sector the ROA can be affected by the interest rates' trend in the financial market and of course the bank will not get any beneficial effect if the interest rates in the market are high (Madura 2015). What is more, for an Islamic bank in particular, ROA can be strongly related to the general economic condition, due to the nature of the Islamic financial contracts, and on the quality of the creditors. As mentioned before, ROA is able to reveal how well the management is using their assets in order to generate profits. In addition, ROA can be simply calculated as Net Profit After Tax over the Total Assets. What is more in the banking sector a good value of ROA is between 1.2% - 1.4%, by considering a benchmark of 1% (Goel 2014).

On the other hand, ROE represents the amount of earnings generated in the investment in equity. This figure can be considered extremely important from the point of view of the equity holder. As the definition says the ROE can be calculated as Net Profit After Tax over the Equity Capital, and also for the ROE exists a range, and as reported by Issah and Ngmenipuo (2015) for the actual bank industry a good ROE should be between 11% and 33%.

In addition, as stated by Sutton (2004) there are several factors that can influence the ROE and ROA and for this reason can be recorded a high value of correlation between the two profitability ratios.

Finally, even if in the case of the Islamic banks, they can be depicted as companies without debt, all-equity financed, due to the fact that all the depositors are considered as partners and

must share the potential losses and profits (Al-Kayed et al., 2014), from an accounting point of view the banks have always some liabilities to the investors and for this reason it is also important to consider the debt ratio because it is the measure of bank's solvency.

3.3 Methodology

By considering the previous researches presented in the literature review, this article follows the same pattern, and all the data are organised according to the panel data structure and are regressed according to the panel data model.

As reported by Wooldridge (2012) a panel data, also known as "longitudinal data", is a combination of both cross-sectional data and time series data. Cross-sectional data allows the researchers to analyse different companies, countries, and in general different entities in the same period of time. On the other hand, time series analysis allows the researches to analyse one individual during different period of time.

Formally, panel data is represented as "Yit", where i = 1,2,3,4,5…N represents all the entities included in the panel data and object of analysis, and t = 1,2,3,4,5…T is the expression of the time (Koop 2008). In addition, the panel data constructed for the purpose of this research is considered balanced panel data because, as stated by Gujarati (2009) when each entity of the panel has the same amount of observation in the same time period it can be defined as balanced. In addition, the panel data analysis can reduce the level of collinearity between the variables and what is more important it considers the possibility of heterogeneity among the entities by taking in consideration that they are and can be different (Wooldridge 2012). Moreover, the panel data can intercept specific characteristics that can be not considered by the researchers, or they are difficult to identify. In other words, the panel data match unobserved variables with the explanatory variables reported in the panel (Baltagi 2005).

However, panel data is not a perfect model and as main limitations can be considered the fact that there is always a lack of coverage with a limited number of entities and in general short time dimension because often with a panel data are analysed annual information (Gujarati 2009). Furthermore, the panel data analysis is characterised by three main models. First of all, it is possible to mention the pooled model which consider all the observations free from any kind of individual effect, as they are originated by the same regression model, the intercept is constant as well as the coefficient. Moreover, the pooled method uses the ordinary least squares (OLS) estimators as the best and efficient parameters estimates (Koop 2008).

Secondly, it is possible to use the fixed model, which use dummy variables in order to model the effect of an individual entity. In general, the formula for the fixed effect is:

$$Yit = \alpha 1 * D1 + \alpha 2 * D2 + \alpha 3 * D3 + \ldots + \alpha n * Dn + \beta * Xit + \varepsilon it \quad (1)$$

where α1, α2, α3, αn are the intercepts, D1, D2, D3, Dn are the dummy variables, β is the coefficient, and ε is the error.

As it can be seen from the formula (1), in the fixed effect the intercept is considered not constant and is different from the entities in the sample (Greene 2012). In addition, the fixed effect is computed by using the least squares dummy variable (LSDV) (Park 2011).

Thirdly, it is possible to use the random effect which assumes that the intercept can change by following a random pattern, and the effect, which characterises the entities, is not correlated with the regressors (Greene 2012 and Park 2011). Moreover, in the random effect the intercept and the inclination of the regressors are considered to be the same, but the difference is present in the error term, and each individual is characterised by a specific error (Park 2011).

As reported by Koop (2008), the random effect is computed by utilizing the generalised least square (GLS) when every entity has a known covariance structure. In case the covariance structure is unknown the random effect uses the feasible generalised least squares (FGLS) or estimated generalised least squares (EGLS), which are the most common methods (Baltagi 2005, and Greene 2012).

3.4 Specification of the model used

As described above, in the panel data analysis it is possible to use pooled ordinary least squares (OLS), fixed effect model and random effect model.

However, in general there is always a model that is better to use compared with the others. For the purpose of this research different tests have been performed in order to decide which is the best model.

By utilizing the statistical software STATA, the panel data has been tested for time effect. In this way, as specified by Koop (2008) and Greene (2012) it is possible to understand if the time component has some impact in the model by eliminating the possibility that the pooled model should be used, due to the fact that the pooled model neglect the possibility of heterogeneity of the entity, which helps to understand whether the regression function is stable over the period of time.

In order to perform this test with STATA, it is important to create "time dummy variables", with the command "xi: regress variable1, variable2…, variable N, i.years", then run the regression by using OLS and finally test whether the time dummy variables are equal to zero. The test performed is known as "testparm" and the null hypothesis (H0) is that the time dummy variables are equal to zero (Wooldridge 2012).

By running the test, it is possible to observe a p-value of 0.0025, which is less than 0.05 confidence interval, and for this reason, it is possible to reject the null hypothesis, which means that the dummy variables are not equal to zero. In this situation, the pooled model is not the best model to use.

Now, the choice of the right model is between the fixed effect model and the random effect model. In this situation it is possible to use the Hausman Test (Hausman 1978) and the null hypothesis (H0) is that the regressors and the individual effect are not correlated. This test has been performed for the sample of this research, and the final result shows that the test statistic has a chi-square distribution with a value of 0.0958 which means that it is not possible to reject the null hypothesis and the random effect should be used (Baltagi 2005).

Finally, as stated above, the random effect model is the most efficient method that is used in this research. In addition, according to Greene (2012) and Park (2011) the random effect can be estimated through GLS, FGLS and EGLS, however, due to the fact that the covariance is likely to be unknown EGLS is the most common method.

The next section reports the description and interpretation of the data obtained by running the regression model.

3.5 Descriptive statistics

This section presents the general statistics of the sample considered in the research. Table 1 shows that the mean of the first variable, log share price, is negative, with a value of -0.0001722, with a minimum value of -0.0027519 and a maximum value of 0.0038572. By looking at these figures, it is possible to understand that from 2009 to 2014 the performance of the shares traded in the Bahrain Bourse has followed a downward trend. It is important to consider that the Islamic banks are allowed to invest only in specific sectors. In general, in the

Middle East, the main sectors are the real estate, energy, infrastructure, retail and consumer goods. The negative result can also be considered as a negative consequence generated by the bubble on the real estate that hit the countries in the Middle East particularly in United Arab Emirates, Qatar and Bahrain in 2007 – 2008. The Return on Equity (ROE), has recorded a mean of 0.0090194, with a standard deviation of 12.8%, reporting a minimum value of -0.2724139, and a maximum value of 0.4645528. The ROE is an important figure, from the perspective of the shareholders, because it represents the earnings generated from the equity investment. In addition, as reported by Issah and Ngmenipuo (2015), in general, the bank sector is characterized by a ROE that is around 11% and 33%. The value reported by the Islamic banks in Bahrain are characterized by a broad fluctuation with values between -27.24139% and 46.45528%.

Moreover, the Return on Assets (ROA) is essential in the analysis of the company's profitability as well. The mean value of the ROA is negative, -0.0003889, with a low standard deviation (0.0150557). Also for the ROA it is possible to see a broad fluctuation of its figures, with a minimum value of -0.0355056, and a maximum value of 0.0434944. As mentioned earlier, the ROA is a measure of returns generated from the assets owned by the bank and as stated by Goel (2014) a good value of the ROA should be between 1.2% and 1.4%. However, also in this case the severe fluctuation pushes away the mean value from the range reported by Goel (2014), and it is possible to deduce that the projects financed through Islamic contracts have experienced a bad performance due to the fact that they are considered as bank's assets, and the profit of the bank is linked to the trend of its investments. Thus, because of the bad state of the economy, after the period of the financial crisis, the performance of the assets' return was also affected by the trend of the entire economy.

Table 1 Overall descriptive statistics

Variable	Mean	Std. Dev.	Min	Max	Observations (N)
Log share Price	-0.0001722	0.0015533	-0.0027519	0.0038572	36
ROE	0.0090194	0.1283947	-0.2724139	0.4645528	36
ROA	-0.0003889	0.0150557	-0.0355056	0.0434944	36
Firm Size	9.509783	0.1048353	9.251454	9.784951	36
Debt Ratio	0.8495427	0.0265593	0.7929304	0.9130785	36

Source: STATA output

Furthermore, the firm size is important because it can be seen as the ability of the bank to enhance their investments. The mean value of the firm size is 9.509783, which is included in the range with a minimum value of 9.251454 and a maximum value of 9.784951. In addition, the bank's size can also be indicative of market competitiveness and the ability to enhance portfolio investments, even if in general the Islamic banks are small financial institutions (Hutchinson and Cox 2006).

Finally, although the Islamic banks are considered as financial institutions without debt, due to the nature of the Islamic contracts, all the investors are considered partners, thus they must share potential losses and profits, the banks must always recognise an amount of debt, and they always have liabilities to their investors. For this reason, it is important to consider the debt ratio, and as can be seen from Table 1, the mean value is 0.8495427, with a range

between the minimum value of 0.7929304 and the maximum value of 0.9130785. However, the value of the standard deviation is small, so the risk associated with the debt ratio is attested to be 0.0265593. Yet, it is possible to observe that the percentage of debt in the Islamic banks is rather high, but in order to understand this figure better, it is necessary to have a deep analysis of the investment decision of the bank, how they have decided to invest and what was the state of the payments. In addition, the high level of debt reported in Table 1 is in line with the study conducted by Kadom and Eid (2008), according to which the Islamic banks are characterized by 75% of their capital coming from their depositors, through profit and loss sharing (PLS) agreements, and only 25% coming from equity.

4. Panel data analysis

The panel data analysis, as mentioned earlier, will allow performing a regression analysis for several entities in different periods of time. The aim of this section is to understand what is the impact of the accounting ratios, adopted as part of the sample, on the log share price of six Islamic banks in Bahrain.

4.1 Multicollinearity analysis

Before starting with the analysis of the regression model, it seems to be useful and appropriate to check the level of multicollinearity between the variables.

Table 2 Multicollinearity

	Log Share Price	ROE	ROA	Firm Size	Debt ratio
Log share Price	1.0000				
ROE	0.1333	1.0000			
ROA	0.1754	0.9557	1.0000		
Firm Size	0.0981	0.4416	0.3517	1.0000	
Debt ratio	0.1865	0.0653	-0.0184	0.6538	1.0000

Source: STATA output

As can be seen from Table 2 there is a high multicollinearity between the ROE and ROA and this result is in line with Sutton (2004), who affirms that there are several common factors that can affect the Return on Equity and Return on Assets; thus, they are often correlated with each other. In this case, it is possible to observe a 95.57% of correlation, that is extremely high. According to Koop (2008) and Gujarati (2003), in case there is a high level of multicollinearity between the variables there are two options that it is possible to follow. The first option is to keep the variables and continue to analyse them if there is a theoretical reason to include these regressors, but the consequence can be an imprecise standard error. The second option is to reduce the number of regressors and exclude one variable, in this case, it is possible to reduce the multicollinearity, or transform the data by taking the first difference, or add new data (Koop 2008).

In this context where there is a deficiency of available data, and the sample is not broad enough, the best options is to drop a variable and keep the others and continue the analysis. In the case of the 95.57% correlation between the ROE and ROA, the decision is to exclude

the ROE from the analysis because it is believed that due to the nature of the Islamic contracts and how they are considered in the balance sheet, the value of the assets can have a more significant influence on the investment decision of the shareholders, thus, in this specific situation the ROA is believed to be more important than ROE.

Regarding the correlation between the firm size and debt ratio, which is 65.38% the decision taken is to keep the variables in the analysis as well as in the case of the correlation between ROA and firm size, which is 35.17%.

4.2 Regression Model

As mentioned earlier, in the panel data analysis there are three regression models that are possible to perform namely, pooled model, random effect model and fixed effect model. All three of them are good models but in the regression analysis there is always one model that is better than the others.

By utilizing the statistical software STATA, the test for time effect has been performed. According to Koop (2008) and Greene (2012), by running a time effect test it is possible to understand whether this component has some influence on the model, and by doing so it is possible to decide that the pooled model should not be used, because it considers the regression function stable over the period of time.

By running the "testparm", with the null hypothesis (H0) that the time dummy variables are equal to zero (Wooldridge 2012), the final result shows a p-value of 0.0025, which is less than 0.05 confidence interval, thus, the H0 can be rejected, and the time dummy variables are different from zero. In this situation, the final consideration is that the pooled model is not an appropriate model.

Therefore, the two models left are the random effect model and fixed effect model. The main test used in order to decide which model is more appropriate for the analysis is the Hausman Test (Hausman 1978), which is characterized by a null hypothesis (H0) which states that the regressors and the individual error terms are not correlated. The Hausman Test is characterized by a chi – square distribution and the final result shows a p-value of 0.0958, which is higher than 0.05 significance level. This large p-value can be interpreted as a sign that the null hypothesis cannot be rejected, so the random effect is the best model to use with the sample in question.

By moving forward, Table 3 reports the final result obtained by running a regression model by using the random effect model through utilising the software EViews, and as specified by Green (2012) and Park (2011) the result have been obtained by using the most common method, estimated generalised least squares (EGLS), due to the fact that the covariance is unknown.

Table 3 Random Effect method

Variable	Coefficient	Std. Error	t-statistic	p-value
ROA	0.023934	0.002143	11.17074	0.0000
Firm Size	-0.000573	0.000109	-5.269247	0.0000
Debt ratio	0.006418	0.001024	6.266743	0.0000

Source: EViews output

From the analysis of the p-value, it is possible to declare that the ROA, firm size and debt ratio are significant at 0.05 significance level, because all of them have reported a p-value that is less than 5%. In addition, it is possible to analyse and interpret the different coefficients generated by the regression model. The ROA and the log share price are characterized by a

positive relationship, which is indicated by the positive coefficient of 0.023934. This figure represents that a change of one unit in the level of ROA causes a change of 0.023934 in the log share price of the banks considered in the sample. This means that the return generated by the project financed by the Islamic banks are extremely important because by selecting and using the banks' assets in a profitable way it is possible to increase the value of the share and the wealth of the investors. Thus, this scenario can suggest that the managers have the task to carefully select and finance projects that can guarantee a positive return in order to increase the wealth of the shareholders. This result is also consistent with the studies reported in the literature review where in all of them the ROA has a positive and significant influence on the share price.

Furthermore, the firm size and the log share price are characterized by a negative and significant relationship with a coefficient of -0.000573 and a p-value of 0.0000. This means that an increase of one percent in the size of the bank can cause a decrease in the stock price of 0.000573. It can be gathered that for the Islamic banking sector, a small bank can have more chance to increase the price of its shares. From this result, it is possible to affirm that with regard to the Islamic banking industry, an investor invests the most in small banks because he/she believes that these banks can make a more careful and precise evaluation of the projects they want to fund. In addition, being a small bank, there is an incentive in monitoring the risks that may arise from risky investments and what is more an Islamic investor thinks that a small bank is more concerned about the goodness and compliance with the Islamic law. Thus, there is a high demand for the small bank's shares.

The debt ratio and log share price are related by a positive and significant relationship. The coefficient reported in Table 3 shows that a change of one unit in the debt ratio can affect the log share price by increasing it of 0.006416. For the Islamic banks the debt side is composed by operational liabilities, where it is possible to include all the funds gathered by profit and loss sharing contracts (PLS), and in several cases, sukuk contracts. All this means that Islamic investors want to invest in banks that have a huge amount of project financed by PLS contracts because this implies a diversification in the investments, therefore the risk in investments are reduced.

Finally, from the results obtained by running the regression model, it is possible to consider the value of the adjusted R-squared which reports a value of 0.777191. This means that the ROA, firm size and debt ratio can explain 77.71% of the changes in the log share price.

5. Conclusion

The preeminent objective of this article is to analyse the main characteristics of the Islamic accounting system and the impact of the accounting ratios on the share price of six Islamic banks based in Bahrain.

In the first section, the introduction of the Islamic system, introduction of the Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI), and structure of the article are presented. The second part contains the literature review which has been divided into two parts, the first part presents the theoretical researches about Islamic accounting system whereas the second part presents the main studies on the impact of the accounting ratios on the share price of companies.

Based on the previous researches the methodology has been explained, by analysing the data collected on six Islamic banks. Furthermore, the data's description, the main descriptive statistics, the analysis of multicollinearity as well as the analysis of the regression model and results' explanation about the impact of the accounting ratios on the share price is reported.

5.1 Main findings

In this article four factors have been used in order to detect the impact of accounting ratios on the share price. Two model specification tests have been run and the random effect is proved to be the best model in order to analyse the available data for the purpose of this research. The main findings are that the three accounting ratios, namely, Return on Assets (ROA), Return on Equity (ROE), size of the firm and debt ratio do exert impact on share price. In fact, the ROA and log share price are characterised by positive relationship with a coefficient of 0.023934, by causing an increase of the log share price by the same amount. This means that the return generated by the projects financed by the bank are extremely important and has an immense impact on the share price.

By considering the result obtained for the firm size, it is possible to observe a negative relationship with the log share price, with a coefficient of -0.000573, this indicates that a small Islamic bank can have more chance to increase the price of its shares.

Different result has been obtained for the debt ratio. It is possible to record a positive impact on the share price by having a coefficient of 0.006416. Thus, a bank with a high level of debt can be more attractive for a Muslim investor because he/she may think that the bank is investing its capital in several projects which can improve the shareholders' wealth.

From the analysis of the regression model, the three accounting ratios such as ROA, firm size and debt ratio can explain 77.71% of the changes in the log share price.

By moving on to the theoretical part of this study, the main remarks are that the Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI) is the main organization in order to spread awareness of the Islamic standards, but the primary limitation is that the AAOIFI's rules are not compulsory. In addition, there is a lack in the homogeneity due to the fact that the majority of the Islamic banks have relationships with Western business organizations which comply with the IFRS or US GAAP, as well as the local legislation comply with Western standards.

5.2 Contribution of this study

This study has an important contribution to the literature related to the topic of the Islamic accounting system. The literature review examines the main researches related to this topic and in particular in the second part of the literature review, it can be found that it is possible to understand that there is a lack of quantitative studies on Islamic banks. The majority of researches are focused on other kind of companies, however, this research wants to add an important study focused only on Islamic banks, even if several difficulties were encountered during the data collection. This is due to the fact that the Islamic accounting standards are not compulsory. In addition, the importance of this study is also related to the fact that the data employed in the research are collected from authoritative sources and are recent.

5.3 Limitation and recommendations for future research

This research analyses the Islamic accounting standards and the impact of the Islamic accounting ratios on the share price of six Islamic banks based in Bahrain. This study has several limitations due to the lack of data, and in particular reliable data on Islamic banks. Furthermore, as mentioned earlier, the Islamic accounting standards are not compulsory, and for this reason it is not easy to find banks which publish reliable financial statements, trade their shares in the financial market and at the same time comply with the standards issued by the Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI). In addition, this research is

focused only on Islamic banks based in Bahrain, but it seems to be interesting that futures studies could take into consideration with regards to other Islamic countries. From a quantitative point of view, this research focuses its attention only on Return of Assets (ROA), Return on Equity (ROE), and firm size and debt ratio. Suggestions for future researches can be made and it is possible to mention that, due to the nature of the Islamic financial contracts and the business in which they operate, it is interesting to also consider financial and accounting data of the sectors in which the Islamic banks are allowed to invest, by detecting whether the investment in a specific sector can have an impact on the banks' share price.

References

AAOIFI (2008) financial accounting standards: Accounting and Auditing Organization for Islamic

Financial Institutions, Manama, Bahrain

Abba M, Suleiman U (2016) Corporate attributes and share value of listed pharmaceutical firms in Nigeria, Journal of Arts, Science and Commerce, 7(1), pag. 88 – 98

Abdallah B (2014) The impact of financial structure, financial leverage and profitability on industrial company share value: Applied study on a sample of Saudi industrial companies, Journal of Finance and Accounting, 5(1), pag. 55 – 66

Abdul Rahman RA (2003) Accounting regulatory issues on investment in Islamic bonds, International Journal of Islamic Financial Service, 4(4), pag. 1 – 11

Abu Hasheeh K (2003) The role of published accounting information in predicting of stock prices,

Al Basa'er Magazine, Petra University, Issue No.2

Abu Shanab SA (2008) The impact of returns and risk on share price, Doctorate Thesis, Arab Amman University for Higher Studies, Amman, Jordan

Ahmed AM, Khababa N (1999) Performance of the banking sector in Saudi Arabia, Journal of Financial Management and Analysis, 12(2), pag. 30 – 36

Ahmed MU, Sabirzvanov R, Rosman R (2016) A critique on accounting for murabah contract. A comparative analysis of IFRS and AAOIFI accounting standards, Journal of Islamic Accounting and Business Research, 7(3), pag. 190 – 201

Al Khadash HAM (2001) The accounting measurement and disclosure requirement in Islamic Banks, unpublished Thesis, University of Western Sydney. Cited in Velayutham S (2014) Conventional accounting vs Islamic accounting: the debate revisited, Journal of Islamic Accounting and Business Research, 5(2), pag. 126 – 141

Al Kurdi A (2005) The ability ranges of published accounting information on stock prices prediction: an applied study on public shareholding corporations on Amman Security Exchange, Doctorate Thesis, Arab Academy for Financial and Banking Sciences, Amman, Jordan

Al-kayed LT, Zain SRSM, Duasa J (2014) The relationship between the capital structure and performance of Islamic banks, Journal of Islamic Accounting and Business Research, 5(2), pag. 158 – 181

Archer S, Karim R (2009) Profit-sharing investment account in Islamic banks: regulatory problems and possible solutions, Journal of Banking Regulation, 10, pag. 300 – 306

Atmeh MA, Ramadan AH (2012) A critique on accounting for the Mudarabah contract, Journal

of Islamic Accounting and Business Research, 3(1), pag. 7 – 19

Baltagi BH (2005), Econometric Analysis of Panel Data, 3rd edition, John Wiley and Sons, Inc, Chichester

Dar HA, Presely R (2000) Lack of profit loss sharing in Islamic banking: management and control imbalances. In: Economic Research paper, No. 00/24, Department of Economics, Loughborough University

Dehuan J, Zhenhu J (2008) Firms performance and stock returns: An empirical study of the top performing stocks listed on Shanghai Stock Exchange, Academy of Accounting and Financial Studies Journal, 12(1), pag. 79

Financial Reporting Issues relating to Islamic finance, Second Meeting of the Asian – Oceanian Standard – setter group (AOSSG), Tokyo, Japan, September 2010

Gambling T, Karim R (1991) Islam and Social Accounting, Journal of Business Finance and Accounting, 13(1), pag. 39 – 50

Glezakos M, Mylonakis J, Kafouros C (2012) The impact of accounting information on stock price: evidence from the Athens Stock Exchange, International Journal of Economics and Finance, 4(2), pag. 56 – 68

Goel S (2014) Financial Statement Analysis: Case from corporate India. Routledge: London, UK

Greene WH (2012) Econometric Analysis, 7th edition, Boston, Mass: Pearson

Gujarati DN (2009) Basic Econometrics, 5th Edition, McGrew-Hill, New York; London

Haniffa R, Hudaib M (2010) The two Ws of the Islamic accounting research, Journal of Islamic Accounting and Business Research, 1(1), pag. 5 – 9

Haniffa R, Hudaib MA (2002) A theoretical framework for the development of the Islamic perspective of accounting, Accounting, Commerce and Finance: The Islamic Perspective Journal, 6(12), pag. 1 – 71.

Harahap S (2003) Disclosure of Islamic values – Annual report, the analysis of Bank Muamalat Indonesia's annual report, Managerial Finance, 29, ABI/INFORM Global, pag. 70 – 89

Hausman JA (1987) Tests in Econometrics, Econometrica, Journal of Econometric Society, 46(6), pag. 1251 – 1271

Hayoshi T (1989) On Islamic accounting: Its future impact on Western accounting, The Institute of Middle Eastern Studies, International University of Japan, Minami Uonuma

Hutchison DE, Cox RAK (2006) Annuals of Financial Economic, University of Ontario Institute of Technology, Oshawa, pag. 40 – 54

Ibrahim SH (2007) IFRS vs AAOIFI: the clash of standards?, Paper No. 12539, Munich Personal REPEc Archive (MPRA), Munich

Ibrahim SHM, Yaya R (2005) The emerging issues on the objectives and characteristics of Islamic accounting for Islamic business organization, Malaysian Accounting Review, 4(1), pag. 75 – 92

Iqbal M (2001) Islamic and conventional banking in the nineties: a comparative study, Islamic Economic Studies, 8(2), pag. 1 – 27

Ismail AG, Be Lay AT (2002) Bank loans portfolio composition and the disclosure of loan loss provision: an empirical evidence of Malaysian banks, Asian Review of Accounting, 10(1), pag. 147 – 162

Issah O, Ngmenipuo IM (2015) An empirical study of the relationship between profitability ratios and market share price of publicly traded banking financial institutions in Ghana, International Journal of Economics, Commerce and Management, 3(12), pag. 27 – 42

Kabajah MAM, Al Nu'aimat SMA, Dahmash FN (2012) The relationship between the ROA, ROE and ROI ratios with the Jordanian Insurance Public Companies market share price, International Journal of Humanities and Social Science, 2(11), pag. 115 – 120

Kadom S, Eid A (2008) Cost of capital of Islamic banking institutions: an empirical study of special case, International Journal of Islamic and Middle Eastern Finance and Management, 1(1), pag. 10 – 19

Kamla R (2009) Critical insight into the contemporary Islamic accounting, Critical Perspective on Accounting, 20, pag. 921 – 932

Kamla R, Gollhofer S, Haslam J (2006) Islam, nature and accounting: Islamic principles and the notion of accounting for the environment, Accounting Forum, 30, pag. 245 – 265

Karim RAA (2001) International accounting harmonization, banking regulation and Islamic banks, The international Journal of Accounting, 36, pag. 169 – 193

Koop G (2008), Introduction to Econometrics, John Wiley and Sons, England: Chichester

Madura J (2015) Financial Market and Institutions, Stanford: Cangage Learning, 11th Edition, USA

Manage PM (2012) Impact of selected financial variables on share price of listed public firms in the

Philippines, American International Journal of Contemporary Research, 2(9), pag. 98 – 104

Maurer B (2002) Anthropological and accounting knowledge in Islamic banking and finance: rethinking critical accounts, Journal of Royal Anthropological Institute, 8, pag. 645 – 667

Mirza M, Baydoun N (2000) Accounting policy in a riba free environment, Accounting, Commerce and Finance: The Islamic Perspective Journal, 4(1), pag. 30 – 40

Mohammed NF, Fahmi FM, Ahmad AE (2015) Influence of AAOIFI accounting standards in reporting Islamic financial institutions in Malaysia, Procedia Economics and Finance, 31, pag. 418 – 425

Napier C (2009) Defining Islamic accounting: current issues, past roots, Accounting History, 14(1-2), pag. 121 – 144

Nirmala P, Sanju S, Ramachandran M (2011) Determinants of share price, Journal of Emerging Trends in Economics and Management Sciences, 2(2), pag. 124 – 130

Olson D, TA Zoubi (2008) Using accounting ratios to distinguish between Islamic and conventional banks in the GCC region, The International Journal of Accounting, 43, pag. 45 – 65

Park HM (2011) Practical guides to panel data modelling: A step by step analysis using STATA, Tutorial working paper, Graduate School of International Relations, University of Japan

Saddiqui A (2003) Financial contracts, risk and performance of Islamic banking, Managerial Finance, 34(10), pag. 680 – 694

Safdar HT, Hazoor MS, Tobeed A, Ammara I (2013) Impact of firm characteristics on stock returns of non-financial listed companies in Karachi Stock Exchange, Asian Economic and Financial Review, 3(1), pag. 51 – 61

Salah O (2010) Islamic finance: the impact of the AAOIFI resolution on equity based sukuk structures, Law and Financial Market Review, 4(5), pag. 507 – 517

Sarea AM (2012) The level of compliance with AAOIFI accounting standards: Evidence from Bahrain, International Management Review, 8(2), pag. 27 – 32

Sutton T (2004) Corporate Financial Accounting and Reporting. Pearson Education

Taktak NB, Zouari SBS, Boudriga A (2010) Do Islamic banks use loan loss provisions to smooth their results?, Journal of Islamic Accounting, Business and Research, 1(2), pag. 114 – 127

Tomkins C, Karim RAA (1987) The Shari'ah and its implications for Islamic financial analysis: an

opportunity to study interactions among society, organization and accounting, The American Journal of Islamic Social Sciences, 4(1), pag. 101 – 115

Velayutham S (2014) Conventional accounting vs Islamic accounting: the debate revisited, Journal of Islamic Accounting and Business Research, 5(2), pag. 126 – 141

Vinnicombe T (2010) AAOIFI reporting standards: Measuring of compliance, Advances in Accounting, Incorporating Advances in International Accounting, 26(1), pag. 55 – 65

Wooldridge JM (2012) Introductory Econometrics: a modern approach. 5th Edition, Mason, Ohio: South-Western Cengage Leaning

Zoubi TA, Al-Khazali O (2007) Empirical testing of the loss provisions of banks in the GCC region, Managerial Finance, 33(7), pag. 500 – 511