

## The Effect of Applying the Islamic Bonds (Sukuk) on the Company's Profitability in Iran's Capital Market

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**Abstract:** Sukuk is a financing tool which is issued by real asset support and it is one of the tools which can be substituted instead of loan papers in the companies financing. Issuance of the rent Sukuk and Murabahah Sukuk can be accounted as a proper solution for the companies financing. Therefore, in this research in order to study the effect of applying the rent and Murabahah Sukuk on the company's profitability in Iran's capital market, the financial information of 26 companies listed on stock exchange that have proceeded to issue Sukuk till the date of providing this research was studied by using of panel data technique during the time span of 2008-2014. The results indicate that there is significant relation between financing through rent Sukuk and profitability. But there is not significant relation between financing through Murabahah Sukuk and profitability.

**Key words:** Financing, Sukuk, rent Sukuk, Murabahah Sukuk, profitability

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### INTRODUCTION

The firms in order to execute the profitable projects and achieve the maximum efficiency for increasing their stockholders' benefits utilize of different methods of financing, the firm's ability in specifying the financing method is accounted as the main factors of their development and progress. According to this, one of the most important financial decisions is the financing manner of economic firms which has significant role in their continuance and profitability. Mostly when the companies need the new financial sources, meet their needs either through utilization of internal sources of firm like accumulated profit and other sources or through receiving the loans and credits from banks and financial and credit institutes and/or issuance of stocks or other debt and capital stock exchange. Therefore, profit is accounted as the important information in the economic decisions, so necessarily, the effective factors on the company's profitability must be identified. Many factors are effective on the company's profitability that the industry kind, company size, company age, ratio of capital to the asset, ratio of debt to the asset and advertising costs can be mentioned as some of them (Sajjadi *et al.*, 2007). The history of Islamic financial tools refers to the Early Islam but using of it in a vast scale and with a new attitude hadn't been considered till several recent decades. Iran is the first country which proceeded to design and issue such financial tools, therefore in 1994, it

provided the controller provisions on the partnership papers issuance and Tehran's municipality as the issuer, issued the first partnership papers but due to the lack of international informing, this case hasn't been transmitted to the other countries (Ghasemi, 2012). Islamic financial tools are as the stock exchange with equal and transactional financial value in the financial markets which have been designed according to one of the contracts confirmed by Islam and the papers' holders are in the form of co-owner of one or a set of assets and the benefits gained from them (Mousavian, 2013). The term of Sukuk for Islamic financial tools for the first time was suggested for financial tools in the juridical committee session of Islamic development bank in 2002. After it, the accounting and auditing organization for Islamic financial institute introduced 14 kinds of Sukuk. For issuance of Sukuk, the existence of at least three financial institutes is necessary which are sponsor, intermediary and trustee. Other components consist of the payment agent, guarantor, auditor, capital supply, credit rating institute and market maker. Sponsor is the legal person that due to the need to the cash fund, special asset(s) or specified design seeks to finance through issuance of Islamic stock exchange. Intermediary is the legal person who usually issues the stock exchange papers with his name. Trustee (company of central asset management) meantime establishing the intermediary companies, does all affairs related to it (Sukuk.ir). The rent Sukuks are the evidences with equal value which indicate the co-owner of their

holders in the rented assets or benefit, services and fees from the place of their received accounts. The components in the rent Sukuk consist of sponsor, guarantor, committed underwriter, auditor, market maker, intermediary institute and sale agent (Mousavian, 2013). Murabahah Sukuk is the sale contract that seller through it informs the customer about the finished price of goods such as purchase price, transportation and maintenance costs and other related costs, then with adding the price or a percent as the profit sells them to him, the Murabahah sale can be contracted in the cash or credit form and usually, the rate of its credit profit is more (Mousavian, 2013). Profit is accounted as the important information in the economic decisions. The studies and researches done about profit constitute one of the most investigative attempts in the accounting history. Profit as the guide of dividend payment, tool of management effectiveness assessment, tool of prediction and assessment of decisions has been always used by investors, managers and financial analyzers. Accordingly, many researchers attempted to identify the effective factors on the company's profitability. Profitability is as the significant component of each organization, survival factor and manifesto of success and progress and it is important to an extent that can be said without occurrence of it, commercial organization or institute loses its validity and clearly any organization which is far from reaching to it, is exterminated and any organization which achieves it, will succeed and developed incrementally. The managers of classic book emphasized on the profit category very much. Fridman as one of the great men of this school considered the profit for the organization as the oxygen for human (Elhaj *et al.*, 2015). Now a days, companies for attracting the investors, attempt to maximize the company's value; and increase of income and growth in the profit are as one of the solutions which are considered for this work. On the other hand, in the industrial organization studies, the market share and its growth have been known as the important performance indexes of the company and also the positive relation between the market share and economic profit has been proved. Therefore, due to the rules governing on Sukuk which are according to the Islamic rules and since Iran is an Islamic country, the researcher assessed the financing effect through Sukuk which is somehow accounted as the company debt on the company's profitability in Iran's capital market. With this explanation, current research seeks to study the effect of applying the Sukuk on company's profitability in Iran's capital market. Therefore, the main question of this research is this case that whether the companies financing in Iran's capital market through Sukuk causes to improve the profitability process or not.

**The research background:** Sajjadi *et al.* (2007) studied the effective factors on the profitability of companies listed on stock exchange. They studied six factors of industry kind, company size, company age, ratio of capital to the asset, ratio of debt to the asset and advertising costs on profitability of 60 companies listed on stock exchange as the sample. The findings expressed that if three criteria of profitability, asset efficiency and adjusted efficiency of asset are defined, the variables like company size, ratio of capital to the asset and ratio of debt to the asset will be effective on profitability, but the industry kind, company age and advertising cost aren't effective on profitability. Also, if the capital efficiency is considered as the profitability criterion, the industry kind and company size will be effective on the profitability. But the company age, ratio of capital to the asset, ratio of debt to the asset and advertising cost don't have any effect on profitability. They have used of the multi-variable regression method with virtual variable.

Mollanazari in a research studied the relation between financing methods and success or failure of companies listed on Tehran's stock exchange. The studied sample included 624 companies listed on Tehran's stock exchange that the research results indicated that there is significant relation between financing method and success or failure of intended companies. The research has been a correlative kind.

Talebnia studied the effect of financing out of balance sheet on the profitability ratios. In this research, they studied the effect of financing out of balance sheet on the profitability ratios (ROI, ROE, ROA) of companies listed on Tehran's Stock Exchange. In this research, the survey-comparative method was used and the profitability ratios before and after financing out of balance sheet and also the companies which have had financing out of balance sheet and companies which haven't had financing out of balance sheet were compared. The analysis of collected information and research hypotheses test during 2001-2006 indicated that financing out of balance sheet hasn't had significant change on the profitability ratios.

Kordestani and Najafi (2010) studied the effect of financing methods on the future efficiency of stocks. The research data have been gained from 65 companies listed on Tehran's Stock Exchange during 1999-2006 and the tests have been done by the combinative and sectional method. The findings indicate that the relation of the net change in total financing, net change in external financing and change in the operational net assets supplied from the place of internal financial sources with the abnormal efficiency of accumulated stocks is significant and unlike the prediction, it is positive.

Zamani and Afshar did the empirical test of the relation of financing models on the indexes of financial performance assessment of companies listed on stock exchange. The research sample included 100 companies listed on Tehran's stock exchange during 2006-2011 which were selected through screening. The results gained from the research hypotheses test indicated that the variables of financing model have significant relation with the indexes of financial performance assessment remarkably. The methodology has been descriptive and from a correlative kind.

Salehabadi *et al.* (2011) during a research did the juridical explanation and presentation of technical-marketing model in designing and initiating the rent papers in Iran and concluded that the rent Sukuk is as a proper substitute for the loan papers and another complementary for partnership papers. Also the government should proceed to define, support, apply this new financial tool and create the needed secondary markets for individual investors. This study has been from the field studies.

Moradzadehfard *et al.* (2013) searched about the relation of kind and volume of financing on the operational performance. For this purpose, the statistical samples including 62 companies from companies listed on Tehran's stock exchange were selected for Five-Years period of 2005-2009. In order to test the hypotheses, regression analysis and Pearson correlation coefficient were used that the results gained from these tests indicated that financing through debt and financing out of balance sheet have significant relation in order with market's value added and Q-Tobin ratio.

Jafari did a research entitled "studying the effect of financing method on the firm's profitability growth in Iran". For this purpose, a sample including 30 companies of the largest companies of stock exchange was considered during 2001-2011. The research results indicated that there is positive relation between increase of incomes and companies profitability, moreover short-term financing has more importance in the firm's achievement to the higher rate of growth and the model of divided among the country's firms has been one of the factors of firms growth reduction. They used of panel data method.

**Foreigner studies:** Alam *et al.* (2013) did a research entitled whether the Islamic loan papers (Sukuk) differ from customary loan papers or not and they did it with international degree of capital market tests. In the intended research, they studied the effect of customary

loan papers and introduced Sukuk on stockholder's wealth by using of 79 Sukuks and 87 customary loan papers during 2004-2012 in six developed Islamic financial market. The results expressed that the market's reaction in the previous period and during the global financial crisis was positive to the customary loan papers and it was negative after it.

Hamid *et al.* (2014) studied the company's performance and risk with existence of Sukuk's rank as the presumed risk. They selected 312 large companies from all industries in Malaysia since 2008-2011 as the sample. The research result led to introduce the presumed risk criteria by Sukuk which is according to the unique data of Malaysia and conforms to the religious law.

Kamarudin *et al.* (2014) studied the financial tool of Sukuk in Malaysia's Sukuk market. This research studies the Sukuk as the presumed financial tool among issuers of Sukuk since 2000-2010. The information of Sukuk issuers has been extracted from their annual report. The research indicated that the most number of issuance of Sukuk has occurred in 2009. Therefore, the average growth of 22.2% of Sukuk in the Islamic capital market of Malaysia is as a clear evidence of Sukuk popularity among large companies in Malaysia and indicates great potential as the stable financing option.

Mohamed *et al.* (2015) have studied the corporate governance, financial ratios, Sukuk structure and Sukuk rank during 2008-2012 in Malaysia. The research results indicate that there is significant relation among corporate governance, financial ratios and Islamic Sukuk. Also the Sukuk's rank has high percent among Malaysia's companies. Zulkhibri (2015) has done the theoretical and empirical study of Sukuk. This research indicates that in the theoretical literature of Sukuk, the qualitative researches are instead of quantitative research to high extent. The researches done in Sukuk have been increased in the frame of articles, journals, books, conference articles and reports but this case has been studied less quantitatively.

Hisham have studied this case that whether Sukuk should be selected for financing or loan papers. For this purpose, samples including 120 issuers of loan papers and 80 issuers of Sukuk were selected during 2000-2012 in Malaysia, the evidences of this research indicate that financing through Sukuk in company with issuance of loan papers has positive effect on the companies' performance.

Aloui *et al.* (2015) have studied the relation between stocks' price and Sukuk. This research was done in the level of countries in Khalije Fars domain since 2009-2014.

The results indicate that there is significant relation between the stock price in the market and financing through Sukuk.

Arundina *et al.* (2015) have studied the production market need to the Sukuk ratios. The research was done during 2010-2014. This research indicates that the companies for their financing need other sources except internal sources. The market with injection of Sukuk to the company has better performance than a time that uses of issuance of stock exchange.

### The research hypotheses

**The main hypothesis:** The companies' financing in Iran's capital market through Sukuk during the studied period has caused to improve the profitability.

### Subsidiary hypothesis:

- There is significant and positive relation between companies' financing in Iran's capital market through rent Sukuk and profitability
- There is significant and positive relation between companies' financing in Iran's capital market through Murabahah Sukuk and profitability

**The statistical population and sample:** The statistical population includes 24 companies of 26 companies that have proceeded to issue Sukuk till the date of providing this research. These companies consist of Butane Murabahah Sukuk, rent Sukuk of Pars oil, leasing rent Sukuk of Rayan SAIPA, Mapna rent Sukuk, leasing rent Sukuk of Sina, rent Sukuk of housing investment group, Jopar rent Sukuk, rent Sukuk of Saman Bank, rent Sukuk of Omid investment, Mahan rent Sukuk, Chadormalou rent sukuk, rent Sukuk of Saderat Sepehr, Ritel rent Sukuk, Dana rent Sukuk, Kish Petrorig, Glocozan Murabahah Sukuk, rent Sukuk of Ghaed Basir petrochemistry, Butan rent Sukuk, rent Sukuk of Yazd's Persepolis tile, rent Sukuk of Kish Kaveh steel, Murabahah Sukuk of Megamotor, rent Sukuk of Asia Petro-Omid, Ritel rent Sukuk, Murabahah Sukuk of Banagostar Karaneh, rent Sukuk of Iran's telecommunication.

## MATERIALS AND METHODS

**Data collection method:** The data collection method in this research is a mixture of library methods. In the library method through library studies, the subject literature, research background and also a proper frame for this subject are provided. In this research, the data have been used from the sites of Sukuk.ir, the center of Iran's financial information process (FIPTRAN.ir), stock exchange organization, information related to the companies listed on stock exchange that have proceeded to issue the Sukuk till the date of this research.

**Data analysis method:** The method used in this research with regard to the model is the panel data method. In the panel data, first the units inhomogeneity problem should be tested.

In the event of confirmation of inhomogeneity, the model is estimated through different existing methods for panel data like the fixed effects method or random effects method. The studied period in this research is since 2008-2014.

## RESULTS AND DISCUSSION

**The research findings** The model of the main hypothesis test is as follows:

$$ROA_{it} = \beta_0 + \beta_1 Size_{it} + \beta_2 Age1_{it} + \beta_3 DA_{it} + \beta_4 CA_{it} + \beta_5 Ad_{it} + \beta_6 suk_{it} + U_j$$

So that the variables of intended model consist of:

ROA <sub>it</sub>	=	Profitability according to the assets efficiency
Size <sub>it</sub>	=	Company size
Age1 <sub>it</sub>	=	Company age
Ca <sub>it</sub>	=	The ratio of capital to the asset
Da <sub>it</sub>	=	The ratio of debt to the asset
Ad <sub>it</sub>	=	Advertising cost
suk <sub>it</sub>	=	Issued Sukuk

**F-Limer test:** First, it is necessary that the needed statistical tests to be done for explaining the kind of data. The results of F-Limer test have been indicated for each one of the research models. In order to estimate the model, the method of applying the data is combinative or panel. The amount of probability related to this statistic for the first model of research namely the effect of applying the Islamic stock exchange papers on the companies profitability in Iran is >0.05, therefore, the null hypothesis of test according to the combinative form of data for the research model is rejected. Also, the amount of probability related to this statistic for the second model of the research namely the effect of financing through rent Sukuk on the companies profitability in Iran is <0.05, therefore the null hypothesis of the test according to the combinative form of data for the research model is rejected and finally the amount of probability related to this statistic for the third model of the research namely the effect of financing through Murabahah Sukuk on the companies profitability in Iran is 1<0.05, therefore the null hypothesis of the test according to the combinative form of data for the research model is rejected (Table 1).

**Haussmann test:** With regard to the F-Limer test, necessarily Haussmann test must be done for determining

Table 1: The results of F-Limer test

Models	Kind of test	Statistic	Statistic probability	Results
Financing	F-Limer	7.400	0.0037	Panel method
Rent Sukuk	F-Limer	14.18	0.0000	Panel method
Murabahah Sukuk	F-Limer	14.20	0.0000	Panel method

Table 2: Haussmann test results

Models	Kind of test	Statistic	Statistical probability	Result
Financing	Haussmann	13.55	0.0350	Panel method with fixed effects
Rent Sukuk	Haussmann	19.34	0.0036	Panel method with fixed effects
Murabahah Sukuk	Haussmann	17.35	0.0081	Panel method with fixed effects

The research findings

Table 3: The descriptive statistics of the research model variables

Statistics	Variables (symbol)						
	Assets efficiency (ROA)	Company size (SIZE)	Company age (AGE)	The ratio of capital to the assets (DA)	The ratio of debt to the assets (CA)	Advertising cost (AD)	Islamic financing (SUK)
Mean (Mean)	0.078774	16.24058	19.09677	0.200516	0.603387	0.028194	1021230.0
Middle (Median)	0.042000	16.00300	16.00000	0.156000	0.689000	0.014000	914250.0
Maximum (Maximum)	0.373000	19.24500	56.00000	0.556000	0.948000	0.156000	4500000.0
Minimum (Minimum)	-0.107000	13.52000	0.000000	0.001000	0.000000	0.001000	100000.0
Standard deviation (Std. Dev.)	0.107872	1.871957	16.17478	0.159485	0.253468	0.032442	1014918.0
Skewness (Skewness)	1.191359	0.104564	0.959079	0.585351	-0.700995	2.280897	1.747932
Elongation (Kurtosis)	3.676540	1.756471	2.771272	2.188859	2.496599	8.880598	6.011014

The research findings

Table 4: The results related to the estimation of the research model

$$ROA_{it} = \beta_0 + \beta_1 Size_{it} + \beta_2 Age_{it} + \beta_3 DA_{it} + \beta_4 CA_{it} + \beta_5 Ad_{it} + \beta_6 suk\_R_{it} + \beta_7 suk\_M_{it} + U_{it}$$

Name of variable	Symbol of variable	Estimated coefficient	Standard error	t-statistic	p-values
Company size	Size	0.007251	0.005464	1.327037	0.1872
Company age	Age	0.012463	0.005960	2.090952	0.0388
Ratio of capital to the assets	DA	-0.045133	0.026277	-1.717561	0.0887
Ratio of debt to the asset	CA	-0.041917	0.020587	-2.036117	0.0441
Advertising cost	Ad	0.449055	0.195397	2.298166	0.0234
Financing through rent papers	Suk_R	-2.25E-07	8.11E-08	-2.776785	0.0065
Financing through Murabahah papers	Suk_M	-3.43E-05	0.000431	-0.079688	0.9366
Intercept	C	-14.69618	187.2772	-0.078473	0.9376

F-statistic = 95.37; F-statistical significance = 0.0000; Determination coefficient = 0.88; Durbin-Watson test = 1.83; The number of observations = 24

the kind of panel data. As it is observed in the table, the result of Haussmann test for the research model indicates that the data are panel with random effects. The amount of probability related to this statistic for the first model of the research is <5%, therefore the first model of the research on the intended variables is estimated according to the approach of panel data with fixed effects. Also the amount of probability related to this statistic for the second model of the research is <5%, therefore the second model of the research on the intended variables is estimated according to the approach of panel data with fixed effects and finally the amount of probability related to this statistic for the third model of the research is <5%, therefore the third model of the research on the intended variables is estimated according to the approach of panel data with fixed effects (Table 2 and 3).

Among central indexes expressed, the mean is accounted as the most important of them which indicates the balance point and gravity center of distribution. The

mean is a proper index which indicates the data centrality. For example, the mean of assets efficiency is equal to 0.078 which indicates that most of the data related to this variable have been concentrated around this point. Middle is another central index which indicates the population status. As it is observed in the descriptive statistic table, the middle of variable of capital ratio to the assets is equal to 0.156 which indicates a half of data of this variable is less than this amount and another half is more than this amount (Table 4).

### CONCLUSION

**The results of the research hypotheses test:** After estimation of the model, the results of the research hypotheses test are studied and interpreted.

**The results of the first subsidiary hypothesis test:** The first subsidiary hypothesis of the research is as follows:

**Null hypothesis:** There is not significant relation between the companies financing in Iran's capital market through rent Sukuk and profitability.

**Opposite hypothesis:** There is significant relation between the companies financing in Iran's capital market through rent Sukuk and profitability.

As the results of the table related to the research estimation indicate, p-value (0.0065) indicates the financing variable through rent Sukuk in the companies listed on Tehran's Stock Exchange with Islamic tool with the probability of 95% less than significance level of 0.05. Therefore,  $H_0$  is rejected and we can conclude that there is significant relation between the companies financing in Iran's capital market through rent Sukuk and profitability.

**The results of the second subsidiary hypothesis test:** The second subsidiary hypothesis is as follows:

**Null hypothesis:** There is not significant relation between the companies financing in Iran's capital market through Murabahah Sukuk and profitability.

**Opposite hypothesis:** There is significant relation between the companies financing in Iran's capital market through Murabahah Sukuk and profitability.

As the results related to the research estimation indicate, p-value (0.9366) indicates the financing variable through Murabahah Sukuk in the companies listed on Tehran's Stock Exchange with Islamic tool with the probability of 95 percent more than the significance level of 0.05. Therefore,  $H_0$  isn't rejected and we can conclude that there is not significant relation between the companies financing in Iran's capital market through Murabahah Sukuk and profitability.

The purpose of current research was this case that whether the companies financing in Iran's capital market through Sukuk during the studied period has caused to improve the profitability process or not. The first subsidiary hypothesis studied the relation between the companies financing in Iran's capital market through rent Sukuk and profitability. According to the results gained, there is significant relation between the companies financing in Iran's capital market through rent Sukuk and profitability. The second subsidiary hypothesis of the research studied the relation between the companies financing in Iran's capital market through Murabahah Sukuk and profitability. According to the results gained, there is not significant relation between the companies financing in Iran's capital market through Murabahah Sukuk and profitability.

## SUGGESTIONS

With regard to the research results, the research utilizers are suggested to create variety in applying Sukuk kinds especially rent Sukuk for creating the profitability field and other models in this field can be assessed. Moreover, the advantages of Sukuk issuance can be studied more precisely and they can be generalized to the other companies.

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