THE ANALYSIS RELATIONSHIP BETWEEN PRIVATIZATION OF GOVERNMENTAL COMPANIES AND ECONOMIC VALUE ADDED

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Abstract
The present study were classified based on applied research the type. The population of this study are the companies that have been granted in accordance with The State Board Resolution 2008-2009 years more than 50% of the public shares to the private sector. So, with considering this situation, 180 companies were selected as sample.The sampling method of this study is probability - simple random sampling. In order to analyze the data, we used deductive and descriptive statistical methods. The results K-S Test for EVA shows the test distribution is not Normal, so Wilcoxon Signed Ranks Test to test the hypothesis of the research and The results K-S Test for Average rate of return on capital and WACC show the test distribution is Normal, so we can use Paired Samples Statistics. In order to determine the significant difference between the variables of the study, the SPSS tool has been used. Findings show that economic value added of the company before and after privatization have significant difference. Also, the other results show that there is a significant difference between the Average rate of return on capital and WACC of the company before and after privatization.
Keywords: *WACC, Average rate of return on capital, privatization, EVA*

Introduction
In recent years, public private partnerships have become a regular tool for national, state, and local governments to more conveniently fulfill their duties. By involving groups from the private sector, governments have tried to improve the way they perform their duties especially concerning infrastructure improvement projects. Governments have transferred over design, construction, operation, and maintenance responsibilities to the private sector based on the belief that the private sector can fill these needs more efficiently than the government could. Governments are also leasing or selling established government assets, such as toll roads or loan portfolios, in exchange for upfront cash payments. These moneys are used towards new projects or put towards other government needs. Privatization is the transfer of ownership of property or businesses from a government to a privately owned entity. In other hand, The transition from a publicly traded and owned company to a company which is privately owned and no longer trades publicly on a stock exchange. When a publicly traded company becomes private, investors can

no longer purchase a stake in that company (Investopedia, 2014). Privatization, also spelled privatization, may have several meanings. Primarily, it is the process of transferring ownership of a business, enterprise, agency, public service, or public property from the public sector (a government) to the private sector, either to a business that operates for a profit or to a nonprofit organization. It may also mean government outsourcing of services or functions to private firms, e.g. revenue collection, law enforcement, and prison management (Chowdhury, 2006).

Five forms of privatization are identified by Richard C. Brooks in his paper “Privatization of Government Services: An Overview and Review of the Literature.” These five forms of privatization are:

- Complete Privatization,
- Privatization of Operations
- Use of Contracts,
- Franchising,
- and Open Competition (Schoenberg, 2006).

Privatization has occurred numerous times around the world especially in former socialist countries.

The history of privatization dates from Ancient Greece, when governments contracted out almost everything to the private sector. In the Roman Republic private individuals and companies performed the majority of services including tax collection (tax farming), army supplies (military contractors), religious sacrifices and construction. However, the Roman Empire also created state-owned enterprises—for example, much of the grain was eventually produced on estates owned by the Emperor. Some scholars suggest that the cost of bureaucracy was one of the reasons for the fall of the Roman Empire (Parker, 1991). Nationalized industries were often privatized as socialist leaning countries moved towards a more market oriented economy. Socialist countries often faced the problem of having to privatize between 60%-80% of their economies, whereas market based economies had about 10% owned by the public. Industries that were often owned by national governments included gas, electric, water, and telephone services. Other industries included airline service, railway service, bus service, and even some manufacturing. More relevant to the United States would be the period of privatization that has occurred in Western European d Japan over the last thirty years. Beginning with the Margaret Thatcher administration in Great Britain during the late 1970s and early 1980s, privatization of numerous National assets occurred. This privatization movement began with the partial sale of British Petroleum in 1979. This was followed by the sale of an airplane manufacturer (British Aerospace), a radiochemical group (Amersham International), and a freight company (National Freight Company) in 1981 and 1982. Privatization within the country continued with the selling of Britoil, British Ports, Jaguar Cars, and British Telecom in the mid-1980s. British airways, one of the leading airline carriers in Europe, was privatized with an initial public offering (IPO) in 1987. Japan had similar privatization transactions during the mid-1980s. Japan privatized the nation’s monopolies in the tobacco and salt industries in 1984. This was followed by the sale of its telephone service and railway service in 1986. Along with these industries, numerous infrastructural assets such as roads, bridges, and buildings have been privatized around the world. These transactions will be used as example transactions in later sections of this report when analyzing the types of assets that have been privatized in the past (Schoenberg, 2006).

There are numerous reasons why governments turn to privatization. Cost reduction is one motivation for privatization. The desire to transfer risk from the public sector to the private sector can lead to privatization. Another rationale for privatization could be as a new source of revenue. A higher level of service can also be a reason. An absence of expertise within the governmental unit is another. The timeframe with which a project needs to be completed could also factor in the decision for privatization. A final potential reason for privatization is the flexibility provided by the private sector.

Cost Reduction: Governments often outsource operations due to the potential cost savings. Private sector service providers are often able to deliver the same services as the public sector but at a lower price (McGowan, 2000a).

Risk Transfer: Governments often desire to transfer the risks of certain projects to the private sector. By contracting out for certain services, the public sector is exchanging the risks associated with those services for a monetary sum (McGowan, 2000a).

Source of Revenue: The sale or lease of public assets can be used as a new revenue source. The sale/lease of toll roads, toll bridges, loan portfolios, buildings, and lotteries can be sources of large upfront fees or extended fees depending upon the purchase or lease agreement. This new revenue can be used to pay down debt, fund new projects, or meet budgetary needs. This type of revenue generation is often used in lieu of taking on debt or raising taxes (McGowan, 2000b).

Quality of Service: The quality of service provided can also be a reason for privatizing a service or asset. Private sector groups may be able to provide a higher level of service for a similar cost.

Governments may be looking for a higher level of service but cannot provide it by themselves. The private sector may be able to meet the level of service desired without raising cost (McGowan, 2000b).

Expertise: Contractors may be able to have expertise that governmental units do not wish to or cannot afford to provide in-house. These kinds of services are often needed so rarely that it does not make financial sense to maintain staff with these skills. Examples of outside expertise that is often contracted for are architecture and engineering for the construction of buildings (McGowan, 2000b).

Timeliness: The timeliness with which a project needs to be completed can also lead to privatization. In some situations, the government may have the skills to complete a project but they may not be able to complete it within the desired timeframe due to a lack of resources or time. Private groups can supplement the government's efforts and allow a project to maintain a time schedule that would otherwise not be met (McGowan, 2000a).

Flexibility: Often, due to collective bargaining agreements, the public sector is unable to hire and release employees as easily as private contractors can. As such, private contractors are more able to cope with the seasonal demands of some projects which can call for a large amount of labor during parts of the year but less at other times. This can allow the public sector to complete projects without the hassle or cost of hiring and firing employees (McGowan, 2000b).

The economy of Iran has traditionally had some problems due to existence of governmental economic units in the 20^{th} century. Because of the easily available oil revenues, not only the governments have never had a serious tendency to optimize the management of these institutions, but also they had never evaluated their efficiency and management system. There were many economic units which the government took over due to their owner problems. Some of these owners were related with last regime and some of them had left the country because they did not like or did not know the new social and economic conditions. (Razmi, 2007). Article 44 of the Iranian Constitution stipulates that the country's economy should consist of state, cooperative, and private sectors (Madani and Shermamad, 2012).

In general, the date of privatization in the Islamic Republic of Iran backs to the law in 1975 concerning to expansion of the transfer of state owned economic sectors to the private units.

After the Islamic revolution event, Iran faced the great problem (ware with Iraq). It increased government role in planning and controlling the public sector. Officials Under the respective law decided to allocate up to 99% of the government's ownership in non-basic industries. Meanwhile during this vital process blue-collar worker as well as usual people shared. In fact Privatization strategy implementation for the first time according to the sub-article 32 of the first development plan was started in 1989 in Iran. The main objectives of privatization plan were as follows: rising firm's efficiency, decreasing governmental involvement in economic activities, optimizing the utilization of national resources and etc. (Shahraki, Pahlavani, Barghandan, 2011).

In Iran, institutions that provide financial counseling services have not yet been developed. Thus, it is not easy for most investors and shareholders to access valid financial/economic analyses and to interpret the events that affect their activities, which increases the risk involved in buying and selling stocks. In these conditions, the capital market of the country needs to reinforce the institutions that regulate the market and to support shareholders and the free flow of information. On the other hand, it needs to establish entities that provide financial counseling and portfolio management services. Financial analysts play an important role in converging the price and value of stocks by acquiring economic and financial information of firms, thus reducing price bubbles.

Managers do not have much information about the value of assets or about the process through which an investment project is accepted by an entity and rejected by another. Therefore, managers, as users of financial information, require additional data. On the other hand, each business unit needs to evaluate its performance and investigate the strengths and weakness of its past operations. This entails appropriate strategic planning by the management. An important issue for managers in their value creation decisions is economy which is closely linked to value creation. Economy refers to effective use of resources for long-term profitability. There are different measures for valuing assets: return on assets (ROA), return on equity (ROE), profit margin, etc. ROA and ROE were developed by DuPont and have been widely used since the 1980s.

EVA measures the true economic profit, or the amount by which the earnings of a project, an operation, or a company exceed (or fall short of) the total amount of capital that was originally invested by the company's owners. EVA is equal to the profit earned by the firm less the cost of financing the firm's capital. It measures the economic profit rather than the accounting profit that has been created by the business after all the costs of all equity and debt have been taken into consideration.

It must be noted that EVA is also equal to the difference of what the customer pays and what the business spends on raw materials and other production factors. That is, EVA not only measures the economic profit of the business, but also reveals customer satisfaction. In the literature on measures of performance, the closest concept to EVA is residual income. Today, EVA is regarded as a financial management system whose main goal is to maximize shareholders' wealth. It is a basis for setting goals, capital budgets, and incentives (Mousavi Shiri, Salehi, Bahrami, 2013).

In this study, we use the economic approach to assess management performance. So that we studied performance of the privatization policy in formation underlie returns. So, the aim of this study is 'has privatization had a positive effect on the economic value or not? And the economic value of the company before and after privatization are significantly different or not?

METHOD

The present study were classified based on applied research the type. The population of this study are the companies that have been granted in accordance with The State Board Resolution 2008-2009 years more than 50% of the public shares to the private sector. So, with considering this situation, 180 companies were selected as sample.The sampling method of this study is probability - simple random sampling.

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. Table 1 show the Kolmogorov-Smirnov test results for EVA before and after privatization.

Table 1: Kolmogorov-Smirnov test for EVA before and after privatization

Variable		Sig	Statistic	n
EVA	before	.001	1.933	180
	after	.001	2.279	180
Average rate of return on capital	before	.741	.610	180
	after	.671	.760	180
WACC	before	.760	.670	180
	after	.641	.742	180

In order to determine the significant difference between the variables of the study, the SPSS tool has been used.

RESULTS

A) *Deductive Results*

Table 2 to shows the Deductive Results of variables of this research (Minimum, Maximum, Mean, Std. Deviation, Skewness and Kurtosis).

Table 2: Deductive Results

Descriptive Statistics								
		N	Minimum	Maximum	Mean	Std. Deviation	Skewness	Kurtosis
EVA	before	180	-.362	4.69	.5456	1.02969	2.858	8.976
	after	180	-.251	6.12	.2734	1.11833	5.273	28.407
ARRC	before	180	.09	.77	.3641	.19592	.068	-.955
	after	180	.04	.74	.3255	.20117	.288	-.648
WACC	before	180	.091	.78	.3696	.19890	.068	-.955
	after	180	.043	.76	.3305	.20423	.288	-.648

B) *Hypotheses Results*

In this paper we have one main hypotheses and two sub-hypotheses. The statistical way of analysis of hypotheses is two ways, H_1 is acceptance of hypothesis and H_0 is rejecting of hypothesis. In other words, it means that H_1 has positive meaning and H_0 has no meaning.

B-1) Main Hypothesis

- H_1: There is not significant difference between the economic value added of the company before and after privatization.
- H_0: There is significant difference between the economic value added of the company before and after privatization.

Table 3 shows that Wilcoxon Signed Ranks Test has been done in order to determine the significant difference between economic values added of the company before and after privatization.

Table3: Wilcoxon Signed Ranks Test

Ranks				
		N	Mean Rank	Sum of Ranks
post - pre	Negative Ranks	25a	14.68	367.00
	Positive Ranks	5b	19.60	98.00
	Ties	0c		
	Total	30		
a. post < pre b. post > pre c. post = pre				

Test Statistics b	
	post - pre
Z	-2.766a
Asymp. Sig. (2-tailed)	.006
a. Based on positive ranks. b. Wilcoxon Signed Ranks Test	

Table 4 show the summary of the main hypothesis results.

n	Before	After	z	Z table	Result
30	**.545**	**.273**	**-2.779**	**1.96**	**H_0**

According to table 4 results, we can confirm H_0 in 0.05 level of Error. So, with 95 percent confidence level, we can say that there is significant difference between the economic value added of the company before and after privatization.

B-2) Sub-Hypothesis One

- H_1: There is not significant difference between the Average rate of return on capital of the company before and after privatization.
- H_0: There is significant difference between the Average rate of return on capital of the company before and after privatization.

Table 3 shows that Paired Samples Statistics has been done in order to determine the significant difference between Average rate of return on capital of the company before and after privatization.

Table3: Paired Samples Statistics

		Paired Differences	t	df	Sig.

		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				(2-tailed)
					Lower	Upper			
Pair 1	pre - post	.03916	.04897	.00894	.02087	.05744	4.380	29	.000

Table 4 show the summary of the main hypothesis results.

n	**Before**	**After**	**z**	**Z table**	**Result**
30	.369	.303	4.380	1.96 +	H_0

According to table 4 results, we can confirm H_0 in 0.05 level of Error. So, with 95 percent confidence level, we can say that there is significant difference between the Average rate of return on capital of the company before and after privatization.

B-3) Sub-Hypothesis Two

- H_1: There is not significant difference between the WACC of the company before and after privatization.
- H_0: There is significant difference between the WACC of the company before and after privatization.

Table 3 shows that Paired Samples Statistics has been done in order to determine the significant difference between WACC of the companies before and after privatization.

Table3: Paired Samples Statistics

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	pre - post	.03857	.048236	.008806	.020563	.0565866	4.170	29	.000

Table 4 show the summary of the main hypothesis results.

n	**Before**	**After**	**z**	**Z table**	**Result**
77	.364	.325	4.17	1.96 +	H_0

According to table 4 results, we can confirm H_0 in 0.01 level of Error. So, with 99 percent confidence level, we can say that there is significant difference between the WACC of the company before and after privatization.

Findings show that economic value added of the company before and after privatization have significant difference. Also, the other results show that

- There is a significant difference between the Average rate of return on capital of the company before and after privatization.
- There is a significant difference between the WACC of the company before and after privatization.

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