

# The Effect of Company Profitability on the Relationship between Physical Asset Management and Profit Sharing Strategy

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## Abstract

The purpose of this study is to investigate the effect of company profitability on the relationship between physical asset management and profit sharing strategy. The net physical assets and the ratio of physical assets as asset management indicators and net profit margin is the profitability index of the company. In this research, financial information of 165 companies from the set of companies accepted in Tehran Stock Exchange for the period 2013 to 2017 was used. The hypothesis test was performed using multiple linear regression model. Eviews software was used for this purpose. The results show that the company's profitability has a positive effect on the relationship between physical asset management and profit sharing strategy; therefore, the management of physical assets enables the organization to increase its value through the optimal utilization of all available resources and provide the basis for maximizing profits and returns to investors.

**Keywords:** Physical assets net, Physical assets ratio, Company profitability, Profit sharing strategy.

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## Introduction

Management of physical assets is described as the active management of the physical assets of a company (or any other entity), especially in order to optimize the return on investment. Modern organizations are always looking for opportunities to advance and improve the use of their assets to monetize. A successful asset management company has two key effects: maximizing asset utilization and minimizing initial investment and operating costs. Asset management should be in line with the company's business strategies and respond to requests of customer, owner / shareholder, and lawmaker. The client and legislator are looking for a high level of service provided at the lowest possible cost, while the owner / shareholder is looking for a maximum return on investment. The biggest challenge in the asset management strategy is the balancing of these conflicting demands. Managing assets in a number of ways can improve the company's performance and, ultimately, shareholder wealth, which includes: increasing operating income (net sales), reducing operating costs, reducing financial costs and reducing operational assets (Nielsen, 2014). The two indicators of net physical assets and the ratio of physical assets are criteria for measuring asset performance, which are in line with the four strategies proposed to improve company performance. On the other hand, the issue of dividend income has always been one of the most controversial topics of financial science, which has attracted the interest of economists of the present century and over the past five decades and has been the subject of comprehensive theoretical models and empirical studies. Split profit between shareholders enables the company to continue its business. It also maximizes shareholders 'equity and directly affects shareholders' expectations, available cash resources, financing, financial structure, and continuing firm activity (Rashidi, 2000). Now, given that investors are important elements of the capital market, the ultimate goal of each investor is to streamline their capital, maximize profits and returns, And because investors, creditors and other stakeholders are very important to the ability to company in creating and increasing cash, to evaluate that. For that investors to be encouraged to invest in financial assets, the return on these assets should be greater than other options (Mehrani and Bahram Far, 2005); Therefore, the present study examines the effect of company profitability on the relationship between physical asset management and profit sharing strategy. The purpose of measuring profits is to determine how much the business has improved as a result of the operation performed over a given period; That is, the concept of profit is usually synonymous with improving the position of the business unit, and as a result, the higher the amount of profit, one can expect more improvement in the position of the business unit (Rahmatifar, 2013).

## Theoretical fundamentals and research background

In this study, the effectiveness of the company's profitability on the relationship between physical asset management and the profit sharing strategy is examined. Creating value and enhancing shareholder wealth in the long run is One of the most important goals of the company. Desirable performance provides the basis for achieving this goal. On the other hand, asset management can be beneficial in this direction by increasing the company's profitability and the benefit of the company based on available possibilities and resources. Asset management enables the organization to understand the value of its assets. The potential impact of asset management on firm performance depends on the

organization's structure. Modern organizations are always looking for opportunities to promote and improve the use of their assets in order to earn money. Asset management should be in line with the company's business strategies and respond of requests to customer, owner / shareholder, and lawmaker. Managers aiming to maximize shareholder wealth must always balance their different interests and opportunities of profitable investment, Therefore, dividend decisions that are made by corporate managers are very sensitive and important. The identification of factors affecting dividend profit has been the subject of research by many researchers. Their results indicate the importance of dividing profits into the company's fate. Mirzaee (2016) in his research titled the Investigating the effect of asset management on the firm's performance in companies admitted to the Tehran Stock Exchange concluded that there is no significant correlation between net physical assets and economic value added; while there is a positive and significant correlation between the physical asset turnover and economic value added. Also, based on his research, there is a significant and inverse correlation between the ratio of physical asset and economic value added. Mohammadi (2015) investigated the ability to predict the policy of paying profit by using financial indicators of the company's performance including return on assets, return on equity, net margin and financial leverage considering the field of activity of the companies. In this research, he used financial information of 258 companies from a set of companies accepted in Tehran Stock Exchange for the period from 2009 to 2013. The results of the hypothesis test show that the ratio of return on assets has a positive and significant effect on the policy of dividend, but this ratio is not useful in interacting with the field of activity of companies to predict the policy of paying profit; Also, financial indicators of return on equity, profit margin and financial leverage are not effective on the dividend policy With regard to non-financial index of the field of activity of the companies. Setiadi et al. (2015) examined the impact of asset management and debt management on economic value added in Indonesia's commercial banks. The model used by them is model of Dodg and Chen (1997) and Dod and Chen (1999). Their research results show that asset management, debt management and asset management - debt have a positive and significant effect on economic value added. Nielsen (2014) explores the relationship between asset management and financial performance of companies. In this research, for asset management, corporate physical assets have been used as the main criterion. In this regard, three indicators of net physical assets, physical asset turnover and physical asset ratios have been used as asset management criteria. Also, for the financial performance of companies, the ratio of return on investment has been used. His research results show that there is a positive and significant relationship between asset management and financial performance of companies and managing assets through improved operating income (net sales), lower operating costs, lowering financial costs and reducing operational assets can improve company financial performance. Memarian and Hosseini Immuni (2012) in their study investigated asset and debt management at Mazandaran SADERAT Bank, with emphasis on profitab. Asset and debt management can be defined as a reorganization of the structure of the two sides of the bank balance sheet in order to try to achieve reasonable profitability, minimizing risk of interest rates and providing sufficient liquidity. Among the important quantitative methods used to manage assets and liabilities in banks, it is an ideal planning model, because it is able to take into account different ideals. It also permits deviations from the ideals and thus creates flexibility in the decision-making process. This research is related to the balance sheet data of 2008 to

2011 years of the Mazandaran SADERAT bank which has been used by an idealized planning model to provide a Quantitative model and framework for the optimal management of bank assets and liabilities. The overall results of the model show the model's efficiency and all the stated goals and priorities have been provided. Al-Shubiri (2011) examined the factors influencing on behavioral change in dividend policy in companies admitted to the Amman Stock Exchange. This research was conducted with the aim of determining the dividend policies of 60 industrial companies in the Amman Stock Exchange (ASE) for the period 2005-2009. This study examines the effects of variables such as debt ratio, firm size, fixed assets ratio, equity ratio (profitability), company growth, liquidity, business risk, institutional ownership and free cash flow on dividend policy, its research results That there is a positive and significant relationship between company size, profitability, liquidity and company growth; Also there is a reverse and significant relationship between debt ratio ratios, institutional ownership and business risk; however, there was no relationship between the ratio of fixed assets and free cash flow to dividend policy. Saeedi and Behnam (2010) examined the factors affecting the dividend policy of companies accepted in Tehran Stock Exchange. In this study, eleven factors were investigated. These variables include: company leverage, company size, dividend last year, availability of investment opportunities, cash from operating activities of the company, expected future profit, average yield of competing companies, inflation rate the percentage of free float shares, the average profit growth rate of the past five years and the profit of each share of the company, that among them Confirmed the significance of the relationship between the size of the company, the dividend in the past year, investment opportunities, expected future profit and inflation rate were verified significantly And the significance of the relationship between other variables, including the average profit growth rate of the past 5 years, the percentage of free floatation, operating cash flow, company leverage ratio, earnings per share, And the average percentage of profits paid by competing companies was not approved. Anile et al. (2008) also determined the factors influencing on the policy of dividing profits in India. This research was conducted for Information Technology (IT) companies over the period 2000 to 2006. In this study, profitability, cash flows, taxes and growth opportunities are considered as independent variables and policy of dividend as a dependent variable in regression equations. The results of the research show that profitability and cash flows have a positive effect on the the dividend profits, but tax and growth opportunities have a negative effect on the dividend profits of companies.

### **Research hypotheses**

Implementing appropriate policies for dividing profits into the full capital market will maximize shareholder wealth, so investors have various incentives to buy stocks. Some of them buy the company's stock with this motive Which regularly receive annual interest payments as ordinary dividends, while others, in the hope of rising stock prices, are buying ordinary shares. Others also buy ordinary shares in order to get dividends and raise stock prices, For this reason, managers must adopt different policies to meet the company's shareholders' expectations Management can, by adopting appropriate policies, realize the main goal of the company, which is to maximize the company's profits and ultimately maximize shareholder wealth (Shokri & Pakdel Moghanlo, 2015). On the other hand, the management of the physical assets of a company is described as a key factor in

optimizing investment returns. Asset management is in fact a business process that maximizes the value of all available resources by using optimally. Therefore, the relationship between the management of physical assets and the profit sharing strategy considering the profitability of the company can provide useful information for the decision of the users. ; Therefore, in this section, the research hypothesis is as follows:

H1: The company's profitability has a significant effect on the relationship between physical asset management and profit sharing strategy.

H1a: The company's profitability has a significant effect on the relation between net physical assets and the profit sharing strategy.

H1b: Profitability of the company has a significant effect on the relationship between the ratio of physical assets and the profit sharing strategy.

### **Research method, the statistical population and how to select the research sample to test the hypotheses**

This research is based on the results of applied research and in terms of the implementation process is of quantitative research. In this research, a deductive method or test theory is used. The statistical population of this study is all companies accepted in Tehran Stock Exchange. The realm of research is five years from the beginning of the year 2013 to the end of 2017. Due to the large size of the statistical society and the existence of some inconsistencies among members of the community, the following conditions were chosen for sample selection and thus the sample was selected through systematic elimination. The research sample includes companies that have been extracted from the statistical society based on the following conditions and characteristics:

1. Companies whose financial year they are due to end in March.
2. Companies whose shares have been traded at least once a year.
3. The companies whose required information is available in the Variables Definition section.
4. Companies that are not part of the investment industry and not financial intermediaries.
5. Companies that have not changed the fiscal year in the period under review.

In the present study, with regard to the limitations mentioned, 825 company-year were used as a research sample.

### **Research variables and their measurement method**

Table 1: Research variables

Variable	Symbol	calculation method	Operational definition of variables
independent variable			
Net physical assets	<i>NPA</i>	Net physical assets include land, buildings, inventories, and ... provided on the balance sheet of companies (Nielsen, 2014).	
The ratio of physical assets	<i>PAR</i>	$\frac{Net\ physical\ assets}{Total\ assets}$	The ratio of physical assets is derived from the net distribution of physical assets over total assets (Nielsen, 2014)
Moderator variable			
Net profit margin	<i>NPM</i>	$\frac{Net\ Profit}{Net\ Sales}$	The profit margin results from the division of the amount of profit after deduction of the tax on net sales (Jahankhani and Parsaeeyan, 2007)
The dependent variable			
profit sharing strategy	<i>PSS</i>	$\frac{DPS}{EPS}$	profit sharing strategy is the result of dividend cash dividends per share on the earnings per share (Mohammadi, 2015).

### General research model

In this section, a general model of research has been designed. Since the subject of the research is to examine the effect of the company's profitability on the relationship between the management of physical assets and the profit sharing strategy, Therefore, the profit sharing strategy is dependent variable, net of physical assets, and the ratio of the physical assets of the independent variable and the company's profitability is a moderating variable. The overall research model is as follows:

$$PSS = \alpha_0 + \beta_1 NPA + \beta_2 PAR + \beta_3 NPM + \varepsilon$$

The conceptual model of the research is as follows:

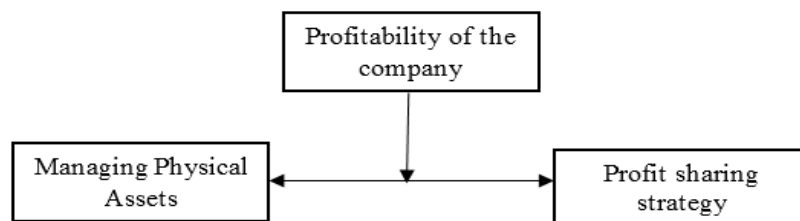


Figure 1: Conceptual Model of Research



## Test results of research hypotheses

### *Investigating the assumptions of linear regression model*

#### .Proof of the variance of the error sentence (remainders)

Another linear regression assumption is that all remaining sentences have the same variance. In this study, the equivalence of variance of residuals was checked by Arch test. According to the table below, the assumption of zero is confirmed based on existence of variance equivalence; Therefore, there is no inconsistency of variance in the model

Table 3: Results from proof of the variance of the error statement

F statistics	sig	Result
0.054	0.815	Equivalence of error variance

#### Normal being an error statement

In this study, the Jarque-Bera statistic has been used to test the normality of the error statement. According to the results, the zero assumption that the error component is normal can not be accepted. But with regard to the central limit theorem when the size of the sample is large enough, the deviation from the assumption of normalization is usually negligible and its consequences are negligible.

Table 4: Results from the normal error statement

Jarque-Bera statistics	sig	Result
10916.3	0.000	Failure to normalize the error component

#### Normality of the dependent variable

In this study, the normal dependency test was verified by Jarque - Bera Statistic. The results indicate that the distribution of variables is abnormal. But with regard to the central limit theorem when the size of the sample is large enough, the deviation from the assumption of normalization is usually negligible and its consequences are negligible.

Table 5: Normal Test(Jarque - Bera)

Variables	Test statistic	sig	Result
Profit sharing strategy	248279	0.000	P<0.05

#### Lack of consistency between explanatory sentences

In this study, the Variance Inflation Factor was used to investigate the lack of coherence. The results of this test show that the inflation rate of variance of the

independent and control variables of the research model is within its permissible limit and therefore there is no problem with this.

Table 6. Test results The lack of a coherence between the explanatory sentences of the research model

Variables	Coefficient variance	Variance Inflation Factor
NPA	$1.88 \times 10^{-15}$	1.099
PAR	0.361	1.18
NPM	0.134	1.956

### Maneuverability test of research variables

Maneuverability test results are presented in Table 7. According to the results, the variables are mana, and the false regression problem will not exist in the estimated coefficients.

Table 7. Maneuverability results of research variables

variables	Symbol	Dickey Fuller		Results
		statistics	sig	
Net profit margin	NPM	-20.88	0.000	mana
profit sharing strategy	PSS	-2175	0.000	mana
Net physical assets	NPA	-9.54	0.000	mana
The ratio of physical assets	PAR	-15.99	0.000	mana

### F limmer test and Hausman test

As shown in Table 8, the probability of F limmer for the research model is less than 5%; Therefore, the panel method is used to estimate the model. Also, the results of the Hausman test showed that the constant effects method was used to estimate the model.

Table 8. The results of the F limmer test

Type of statistics	Statistics	df	Sig.	Result
F statistics	23.146	(6.463)	0.000	Panel method
Statistics of Chi-square	55.952	5	0.000	Fixed effects

### Model estimation and analysis of results

After the classical assumptions about regression and manifestation of the variables of the research were examined and the model estimation method was determined, Now it's the turn that The model is estimated according to the results of the F limmer and Hausman test. In this regard , Eviews9 software has been used to diagnose the relationship between variables.



## Results of research hypothesis testing

By testing the hypotheses, the model estimation results are presented in Table 9. The probability (or significant level) F is 0.000, and since this value is less than 0.05, the zero assumption is rejected at the 95% confidence level, meaning the model is significant. Amount of the Dorbin-Watson statistic is 2.08, which indicates the absence of error autocorrelation. The results of the adjusted coefficient of determination indicate that approximately 71.98% of the changes in variables of the dependent variable are explained by independent and control variables of the model.

Table 9. Testing research hypotheses

$PSS = \alpha_0 + \beta_1 NPA + \beta_2 PAR + \beta_3 NPM + \varepsilon$				
Variable	Estimated coefficient	standard error	Statistics t	sig
<i>NPA</i>	-2.56E-07	1.21E-07	-2.118064	0.0348
<i>PAR</i>	14.18027	0.784930	18.06565	0.0000
<i>NPM</i>	5.061289	0.419650	12.06074	0.0000
<i>C</i>	-2.582461	0.238792	-10.81467	0.0000
$R^2$	71.98%			
Dorbin-Watson	2.08			
F statistics	9.73			
Sig(F statistics)	0.000			

**H1a:** The company's profitability has a significant effect on the relationship between the net physical assets and the profit sharing strategy.

The result of the above table shows the significance level of the t test for the net physical assets is less than 0.05 (0.034); Therefore, it can be said that the zero hypothesis has been rejected in favor of the opposite hypothesis and the company's profitability has a significant effect on the relationship between physical asset management and profit sharing strategy.

**H1b:** Profitability of the company has a significant effect on the relationship between the ratio of physical assets and the profit sharing strategy.

The result of the table above shows that the significance level of the t test for the variable of the ratio of physical assets is less than 0.05 (0.000); Therefore, it can be said that the hypothesis is rejected in favor of the opposite hypothesis and the company's profitability has a significant effect on the ratio between the ratio of physical assets and profit sharing strategy.

## Conclusion of Overall research

In this research, the effect of the company's profitability on the relationship between physical asset management and profit sharing strategy in listed companies in Tehran Stock Exchange from 2013 to 2017 was tested. Variables that were tested as asset

components are: net physical assets and the ratio of physical assets. The profit margin was also used for profitability of the company. According to the results of research hypothesis, the company's profitability has a significant and positive effect on the relationship between physical asset management and profit sharing strategy; Therefore, increasing attention to the management of physical assets has enabled the organization to understand the value of its assets And can best manage assets through optimal use of all available resources And generate value added and improve performance, increase the value of the company and also increase the shareholder's wealth.

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