

Studying the Relation between Fixed Intangible Assets and Accepted Companies' Profitability in Tehran Stock Exchange

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ABSTRACT

The main goal of this study is reviewing whether there is any relation between Tobin's *q* as the agent of fixed intangible assets with Return on Assets (ROA) and the Return on Equity (ROE) as the agents of profitability, or not? In order to achieve this goal, one of the simplest and meanwhile the most applicable statistical methods, is analyzing regression which is used in Enter method. This studying is conducted through testing the investigation hypothesis for accepted companies in Tehran stock exchange during time periods of 1386 to 1390. The results of the study show that there is no any relation between study variables in general and for more assurance, the relation between variables were reviewing yearly, which no relation has been seen in any year. While the results of our investigations have shown the positive relation between variables. So, as the fixed intangible assets are the ability of creating high competition advantages, the managers of these companies have paid more attention to them and also, in accordance with legal responsibility of Accounting Organization in editing the national standards of accounting, so it's suggested to these organization to consider the results of this study. In this regard, the results of the present investigation, is important because of it's related to uncovering the financial reporting and from the theoretical point of view, it's possible that the broad usage of mixing intangible assets in other non-current assets, may be is the base of insufficient uncovering and/or would be misleading in financial reporting.

KEYWORDS: intangible assets, Return on Assets, Return on Equity, stable competitive advantage

INTRODUCTION

The specific economic conditions which are dominant on active companies, caused their relative advantage of these companies are not just their tangible assets. The only thing which makes these companies competitive in present economic scene, is their intangible assets. These kinds of companies, through proper communications with clients and gaining necessary experiment in this regard, and relying to knowledge, organizational techniques and their technical skills, can do it. Today, stable benefit is gained, when these companies learn how to achieve the knowledge. The importance of this issue cause companies have tried more and more in identifying their intangible assets and managing it in suitable way. The organization in order to be immune of environmental horrible waves and consistency with competitive implications, have no way but obtaining and continuing stable competitive influence. The competitive advantage is the distinguished in aspects or dimensions of every company, which enable it to provide better services to clients. But, intangible advantage, is the advantage which cannot be seen easily and resulted of organizational capacities. Overall, it can be said that the more competitive advantage intangible, the possibility of copying of it would be more difficult and time-consuming. Meanwhile, the intangible assets have special role and place. In recent years, we observe the increasing importance of these assets as the valued element to these companies from scientific communities and high-ranking managers perspective. It seems that unilateral between managing this kind of assets and directing the organization, eventually will lead to create value in the process of reverting intangible assets into tangible results, competitive advantage, growth and finally, profitability to company and shareholders. There should make more movement in this regard in Iranian companies. In this way that top managers pay attention to these assets, some indices should be design and make for measuring them and specific informing and culturing should be done in case of interact between these assets and organizational goals.

Study Background

Outdoor investigation about intangible assets have long history. Form Odion and Haloon, this investigation has not added more to economic, and the most part of it, based on the importance of intangible assets. In investigation which have been done by individuals such as Hall (1993), Steuvart (1997), Odion and Haloon (1997),

Caplan and Norton (2004), Vila Longa (2004), and Eatz (2008), have focused on the relation between intangible assets and sustain competitive advantage. In another investigation which is conducted by Wats and Haltozen in 2009 by the name of *The relation between value and reliability of intangible assets*, before and after changing standards in Australia, it showed that after acceptance of standards, the value of intangible assets have increased. Peter Draker, who has been known as the father of new management, has said in an essay by the name of *Our economy is changing*: Two fifth of whole labour of rich countries will consist of knowledged labours through next 20 years. Although this procedure seems to be different in developing countries, but it has specific importance in the basic knowledge organizations throughout developing countries. He by pointing out the intangible assets such as: the relationship of staff or customers as whole, new services, high quality, the operative process of accountability, capable information base, categorizing the skill and the intent of the staff and said that the relationship of employee, has high percent of valueness, and located at the top of the intangible assets list, which and can offer efficient tool for presence in competitive market. In accordance with investigation that Barokh Loo has conducted in New York Eastern University, the results represented that almost 70% of American companies investment devoted to the tangible assets in 1929 and only 30% is related to the intangible assets. This procedure has reversed since 1990 and the proportion of tangible assets to the intangible one has reached to 37 to 63.

Investigation about intangible assets have rarely conducted in Iran. A study by name of *intangible Assets-Forgotten Elements in Accounting*, has been done by Arad Hamed and Ebrahimian Mohammad Taghi, which is conducted in order to identify the intangible assets elements in governmental part. Another study by the name of *The relation between reported items of intangible assets and the market value*, is done by ZareImanand et.al which represented the meaningful relation between these two variables. Fahim Sayed Reza and Esmaeil, together have done another investigation by the name of *The Importance of intangible Assets as Sustain Competitive Advantage*, which is led to the importance of these assets.

METHODOLOGY

Present study from the aim of investigation, is applied investigation. As matter of fact, the developing of applied knowledge is in a specific area and from the method and the nature, is descriptive study. According to the nature of the present study, the correlation analyze method is used for studying the hypothesis. The reasoning method of study is deductive-inductive. It is deductive because of using the second resources (books, specialized magazines and . . .) for theoretical framework and research background and it is inductive, because gathering data is done from the primer data direction in order to be accepted or rejected the hypothesis and the yielded results is generated to the whole statistical population of Tehran exchange stock.

Research Hypothesis

Hypothesis is the writer guess about the subject of study which is identified by investigator research. The belief is told on the basis of present theories in form of studying the amount of correlation relationship between two variables. Meant that whether there is positive relation between sustain intangible assets and profitability. So, the hypothesis of this study are:

1. There is meaningful relation between Tobin's q and Return on Assets(ROA).
2. There is meaningful relation between Tobin's q and Return on Equity (ROE).

Research Hypothesis Test

This study has been conducted in the field of common stock corporation which are accepted in the exchange stock, because of limitation in achieving all financial information of the whole common stock corporations, and all of these corporations are selected provided that having the following conditions as the best one:

1. The company has been accepted in stock before 1386.
2. Ended company fiscal year to 29 Esfand of every year.
3. There wasn't any fiscal year change during the time period of 1386-1390
4. The required information of company, are obtainable.
5. The company had no stop-business more than 6 months during the mentioned time period.

We use of two agents which included ROA and ROE in order to measure the hypothesis of this study to profitability, but in order to measuring the sustain intangible assets, different methods and patterns could be used that we use of simple Tobin's q which is obtain through dividing the market value by book value. So, in the first step and to study and testing our hypothesis, first we study the being normal of variables. It is expected that there would

be a strong correlation relation between them, so that the outdoor investigation prove it. Meanwhile, regression relation is used when at first place the existence of correlation relation between variables is proved.

Table 1- Kolmogrov-smirnovtest to measuring the normality of variables

	ROA	ROE	Tobin's <i>q</i>
Numbers	580	580	580
Mean	9.3327	32.259	2.08
Standard deviation	14.82	131.65	4.223
absolute valuelimit	.112	.343	.335
Positive limit	.084	.343	.315
Negative limit	-.112	-.305	-.335
The amount of Kolmogrov-smirnov	2.686	8.265	8.058
Meaningful level	.000	.000	.000

As we can see in the above table, the meaningful level of Kolmogrov-smirnovtest for variables, is less than one, so these variables have abnormal distribution. By considering that the study variables data are not in normal form, after taking absolute value, by use of ABS mathematical function and LOGfunction, variables are turned into normal forms. To test the hypothesis of this study, Pierson coefficient is used and to analyzing the data, Excel spreadsheet and SPSS16 software are used.

Table 2- central indices and spreading variables before being normal

	ROA	ROE	Tobin's <i>q</i>
Numbers	580	580	580
Mean	.98399	1.4420	2.080
Average	1.0258	1.48491	1.16501
Mode	.104*	.438*	.985*
Standard deviation	.3877	.398	4.222
Skewness	-.467	-.307	8.528
elongation	-.154	3.039	88.910
Amplitude	1.776	3.433	55.494
Minimum	.021	.019	.144
Maximum	1.798	3.452	55.638

Regression analyzing method is used to test these hypothesis by procedure of Enter. Presupposition regression analyzing should be done to conducting this test, so the results of this analyzing would be reliable.

The results of hypothesis test and analyzing data

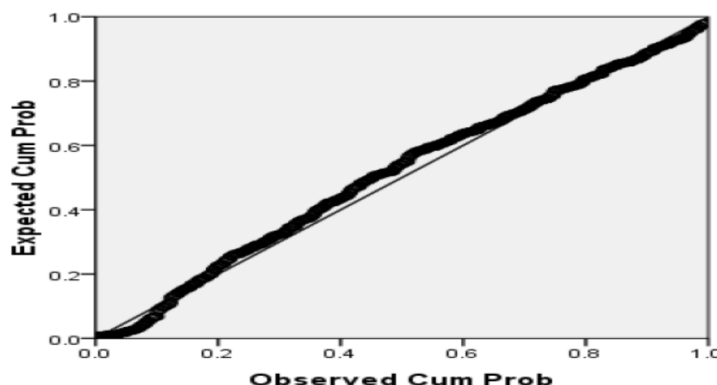
Hypothesis test 1: there is relation between Tobin's *q* and assets efficiency

H0: there is no meaningful relation between Tobin's *q* and Return on Assets(ROA).

H1: there is meaningful relation between Tobin's *q* and Return on Assets(ROA).

1) The presupposition of normality of residuals through the normal plot of residuals (P-P)

Figor1: Normal P-P Plot of Regression Standardized Residual



By considering the above plot which all residual are around or on the line of value, we can concluded that the residual have normal distribution.

2) presupposition independence errors of each other

Durbin-Watson test is used to study the independence errors of each other

Table 3- regression model summarized

Modle	Coefficient of correlation	Determining coefficient	The coefficient of standard determinant	The error of measurement value	Durbin-Watson Test	F	Meaningful level
1	.005a	.000	-.002	.388089	1.948	.014	.904

As it can be seen of above table, the obtained amount of Durbin-Watson is 1/94 and as this amount is located between 1/5 and 2/5, so, the hypothesis of independence errors is accepted.

3)presupposition of the existence of correlation relation between independence and dependence variables

As it can be seen of the above table, the obtained coefficient of correlation is 0/005 which indicate the very poor relation between these two variables in this hypothesis.

3) presupposition identify of model

The obtained coefficient of determinant standard as indicated in above table is 0/002, so, according to this test, the independence variable couldn't identify the model.

5) presupposition of reviewing the liner relation between independence and dependence variables

As it can be seen in the above table, the meaningful level of F test is more than 5 percent, so the zero supposition indicated there is no liner relation between independence and dependence variables is accepted, therefore, according to this supposition, existence of liner relation is rejected.

Table 4- Regression Coefficients

ROA = $\beta_0 + \alpha$ Tobin's q						
Meaningful level	t	Standard Coefficient	Nonstandard Coefficient			Model
			Beta	Value Error	B	1
						Independence Variables Dependence variables
0.000	54.770			.018	.985	(constant) ROA
.904	-.120	-.005		.004	.000	Tobin's q

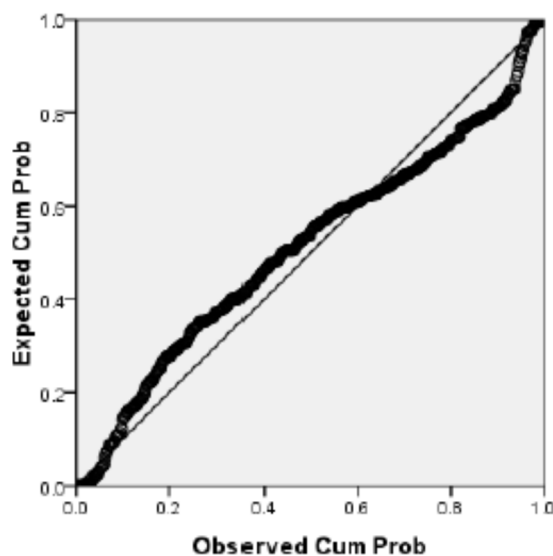
The above table showed that the obtained correlation between these two variables is low and the amount of identify the model by independence variable is equal to zero, and meaningful level of F test is more than 5 percent, so, there is no liner relation between these two variables. By considering that the prerequisites of regression are not take into account, so it can say that independence variable couldn't make related to the dependence variable, as a result, this hypothesis is rejected and on the other hand, there is no relation between Tobin's q and assets efficiencies.

Second Hypothesis Test: There is relation between Tobin's q and shareholders' payments' efficiencies

H0: There is no meaningful relation between Tobin's q and Return on Equity (ROE).

H1: There is meaningful relation between Tobin's q and Return on Equity (ROE).

1) presupposition normality of residual through normal plot of residual (P-P)

Figor2: Normal P-P Plot of Regression Standardized Residual

By taking into account that all residual are around or on the fitting line, so we can result that residual have normal distribution.

2) Presupposition Independence Errors of Each other

Durbin-Watson test is used to studying the independence errors of each other.

Table 5- the summary of regression model

Model	Correlation Coefficient	Determinant coefficient	Determining standard coefficient	Measurement of Value Error	Durbin-Watson Test	F	Meaningful level
1	.032	.001	.000	.398360	1.948	.604	.437

As it can be seen from the above table, the obtained value of Durbin- Watson is 1/94 and as this value is between 1/5 and 2/5, so the hypothesis of independency of errors is accepted.

3) presupposition existence of correlation between independence and dependence variables

As it can be seen from the above table, the obtained correlation coefficient is 0/032 which is indicated that the correlation between these two variables in this hypothesis is very poor.

4) presupposition identify of the model

The obtained coefficient of standard determinant is 0.000, so according to this test, the independence variable could not identify the model.

5) presupposition reviewing the existence of liner relation between independence and dependence variables

It was more than 5 percent, so, according to F, as it can be seen in the above table, the meaningful level of the test is zero, and it is to say none existence of liner relation between independence and dependence variables is accepted, so according to the table, the supposition of existence liner relation is rejected.

Table 6- Regression Coefficients

ROE = $\beta_0 + a$ Tobin's q						
Meaningful level	t	Standard Coefficient	Nonstandard Coefficient		Model	
		Beta	Value Error	B	1	
					Independence Variables	Dependence variable
0.000	77.779		.018	1.436	(constant)	ROE
.437	.777	.032	.004	.003	Tobin's q	

The above tables showed that the obtained correlation between these two variables is low and the amount of identifying the model by dependence variable is equal to zero, meanwhile meaningful level vote of F test is more than 5 percent, so there is no liner relation between these two variables. According to this that regression prerequisite^۱ are not considered, so it can be said that dependence variable couldn't make relation with dependence variable, as a results this hypothesis is rejected and on the other hand, there is no relation between Tobin's q and capital efficiency.

Conclusion

The supposition about corporations said that there is relation between intangible assets and profitability, as it said by foreign investigators' findings. Now, this important question is raised: How we can explain the existence opposition, and providing the reason. Suppose one of these reasons is that intangible assets are not considered by exchange stock corporations because of its nonphysical nature, and the other reason may be this, that the accounting standard about these assets, have curtand the ability of analyzing these assets is difficult.

Suggestions:

According to the results of research, the following are projected:

1. Recommended that the companies managers pay especial attention to the intangible assets as an important resource for profitability, as these assets can have such acceptance that can make a sustainable competitive advantage for holders, and higher than this, the managers of banks and credit financial institution can provide the possibility that invisible assets can have capacity of deposited.
2. The results of this study indicated that there is no relation between intangible assets and profitability. It seemed that not efficient non promote and uncovering intangible assets of the member corporations by exchange stock institution was efficient in circulating this phenomena, specially in case of circumstances that this behavior is dominated on financial reporting of some companies. So that, even uncovering the information of intangible assets in a separated category in the section of non-current assets haven't seen before. So, it is recommended that the exchange stock institution of Tehran by editing a codified and suitable program, developing its monitoring on financial reporting of member companies of the market about these assets.
3. By considering the legal responsibility of audit organization in editing the Accounting and audit National Standards, it is recommended to this organization that considering the results of this research. In regard of the results of this research, they are so important as they related to the uncovering the financial reporting and from the theoretical point of view it is possible that broad usage of mixing the intangible assets in other non-current assets, can cause the inefficient uncovering and / or be misleading in financial reporting.

It is recommended to the audit organization (which is the main part of member companies of Tehran exchange stock is controlled by this organization) and other audit institutions to codifying an accounting program and performing the accounting in a proper way that take the possibility of mixing these kind of assets into account. This possibility from the inefficient uncovering point of view can be relative importance, especially for users of financial statements.

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