

# Examining the relationship between director experience and IPO underestimate in the listed companies in Tehran stock exchange

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**Abstract:** This investigation aims to examine the relationship between director experience and performance of IPOs. All listed companies in Tehran stock exchange were regarded as locative domain and the time domain is between 2009 to 2013. In this research, director experience, short-term performance of IPO, long-term performance of IPO and underpricing are regarded as independent, and dependent variables of the study, respectively. The sample selection is done based on purposive sampling by which 18 IPO firms were selected during the given period. Regarding significance level of F statistics, we have dealt with significance of each variables and their confirmation or rejection. EVIEWS 7 software is used in this investigation. The results suggested that there is not a significant relationship between director experience and IPO underpricing.

**Keywords:** Director experience; Underpricing; Short-term performance; Long-term performance; Initial Public Offerings (IPO).

## Introduction

In today stormy world in which organizations and societies have faced with big environmental and technological evolutions as well as world trade and globalization, access capability to desirable and expected extent of performance has been questioned. In this regard, the only thing ensuring the progressive life of organizations is a strong and efficient management system. In other words, we can see the ultimate desirable performance of organizations when powerfulness and efficient management system is existed (Farahi et al, 2005). "Experience" is the most important factor in learning management capabilities. The studies have showed that management capabilities are achieved to 70% by experience. When we call somebody "experienced" and consider him/her a competent to take responsibility of something, this is the question. They gradually experience various conditions and reach abilities by which encounter with different situations and overcome difficult challenges. That's why each new mission teaches us new skills which is a useful experience. There are various definitions on management experience from various perspectives. From one perspective, management experience of each action is a mission or project creating change or enhancing organizational performance through applying management approaches, methods and ways. Management experience is also defined as encountering and recognizing problem, decision-making during the process of problem-solving. Management experience documentation is also a procedure by which we deal with registering management experience using a comprehensive perspective in a way that others can use them to understand various dimensions and to learn the necessary things. This documentation can be implemented by different ways, such as movies and pictures and other tools for logging events and important happenings. But, an optimized method in documenting management experience is written documentation (Rasouli et al, 2014). In this investigation, we try to examine the relationship between director experience and IPO underpricing in the listed companies in Tehran stock exchange.

## Research background

Zheng (2012) examined the relationship between new firms characteristics and managers' forecast. His sample includes 3186 new firms listed in Canada stock exchange during 1996 to 2011. The results

suggested that there is a positive and significant relationship between bargain and other variables, such as annual sale growth rate and earnings before tax.

Ball & Shivakumar (2012) investigated the earnings quality during initial public offering and showed that contrary to the public belief, firms provide more conservative reports as initial public offering. Mostly of investors request higher reporting quality due to encountering with information asymmetry in compared with private investors.

Ritter (2013) found that long-term return of IPO is annually less than 3.3% on average in compared with other firms with same size. As well, this return is annually less than 1.8% on average in compared with other firms with same size and similar book to market value ratio.

Chow & Lee (2013) examined 591 listed firms in South Korea stock exchange during 2001 to 2011 and investigated the relationship between research and development expenditure (investment) with IPO underpricing in single industries of South Korea.

Trosel et al, (2014) have examined the relationship among director experience and performance of IPO firms. They selected 122 listed companies in Sweden stock exchange with IPO. The obtained results suggested that there is no significant relation between director experience and performance of Sweden IPO firms.

### **Research methodology**

#### ***The research hypothesis***

- There is a significant relationship between director experience and IPO underpricing.

#### ***Research method***

The research plan is done using post-event approach (through past information). On the other hand, the current study is a kind of descriptive-correlation research. It is a quantitative research based on the nature of data. This research is a kind of applied investigation in terms of the goal of the study. To examine the research's hypotheses and regarding data nature and research data which based on past quantitative and real data, regression test is used.

#### ***Regression model***

#### **Underpricing<sub>it</sub>**

$$= \gamma_0 + \gamma_1 \text{Director Experience}_{it} + \gamma_2 \text{Board Size}_{it} + \gamma_3 \text{Age}_{it} + \gamma_4 \text{Firm Size}_{it} + \epsilon_{it}$$

**Underpricing<sub>it</sub>:** In this research, short-term return is calculated for a two-month period based on stock price changes after IPO due to low volume transactions in early days after IPO.

**Director Experience<sub>it</sub>:** The number of years a director works as a firm management (less than 3 years as a less experienced manager and more than 3 years as a high experienced manager) (Trosen & Isaksson, 2014).

**Broad Size<sub>it</sub>:** The number of people existed in board of directors and managers meetings (Hassas Yeganeh et al, 2007).

**Age<sub>it</sub>:** The number of listed years in Tehran stock exchange (Hassas yeganeh et al, 2007).

**Firm Size<sub>it</sub>:** Natural logarithm of book value of total assets (Hassas Yeganeh et al, 2007).

#### ***Statistical sample and population***

The statistical population of the research includes all IPO listed companies in Tehran stock exchange during 2009 to 2013. The purposive sampling method is the index of sample selection by which 18 IPO firms were selected during the given period.

#### ***Data analysis method***

During the research process, the next step is to analyze data. In this research, there are two major processing group on data. To do this, descriptive and inferential statistics are used. In descriptive statistics which usually describe the statistics, central tendency and dispersion indices are used to describe the collected data. To show the results of the process, frequency distribution tables based on absolute and relative amounts, percent, and different diagrams such as histogram, column and bar diagram are used. Dispersion index is also used such as variance, standard deviation, standard deviation and so on. In inferential statistics, the studied hypotheses test is examined. We examine the relationship

between the research's variables through Pearson correlation test, and simple linear regression test is used to investigate the impact level of each independent variable on dependent variable. The significance of F-statistics is also used to examine the adequacy of whole model, and t-statistics is applied to examine the significance of each variables, and to confirm or reject of the variables.

### **Results**

#### **Examination of heteroskedasticity**

To examine heteroskedasticity, Arch error terms test (LM) is performed. The obtained results are as follow:

Table 1-1: The results of heteroskedasticity test of Arch-LM in the research model

Description	Statistics amount	Probability
F-statistic	1.001598	0.264
Obs*R-squared	2.619995	0.264

#### **\* 5% error level**

Regarding table 1-1, due to the significance level of f-statistics is not significant in 5% error level, homogeneity of variance is confirmed and heteroskedasticity of error terms is rejected.

#### **Significance test of fixed effects method**

Table 2.1: F-Limer and Hausman test

F-Limer test			
Description	Statistics amount	Freedom degree	Probability
Cross-section F	1.916555	17	*0.023
Cross-section Chi-square	152.417426	17	*0.004
Hausman test			
Description	Statistics amount	Freedom degree	Probability
Cross-section F	7.552178	5	*0.041

#### **\* 5% error level**

Regarding the results of both table (F and Hausman), the obtained probability were less than 5% in each tests, so fixed effects method should be used in the related regression model.

#### **Lin-Levene method**

In panel data, they showed test of cumulative unit root on data have more power than common unit root test, such as Dicky-Fuller, Augmented Dickey-Fuller and Philips-Perron. Lin-Levene test is used in this research. H0 indicates the unit root of variables.

Table 3.1: Test of cumulative unit root on variables by Lin-Levene

Variables	Statistics	Probability
Underpricing	4.869	*0.0130
Director management	-7.222	*0.0015
Board size	6.254	*0.0020
Firm age	-1.590	*0.0310
Firm size	2.882	*0.0053

#### **\* 5% error level**

According to the table 3-1, the examination of calculated statistics and their acceptance probability indicates that H0 is rejected and all variables of the study are durable.

***The research hypothesis test***

Table 4.1: The regression and model significance test

Variable	Estimated coefficients	Estimation of deviation	t-statistics	Significance level
Fixed	0.526	0.127	4.141	*0.016
Director experience	0.418	0.396	1.055	0.084
Board size	1.336	0.251	5.322	*0.005
Firm age	-0.297	0.284	-1.045	0.083
Firm size	2.331	0.993	2.347	0.059

\* 5% error level

Table 5.1: Description and significance ability of whole model

Sig	F	DW	ANOVA	
			R <sup>2</sup>	R
**0.000	71.662	1.529	0.439	0.448

\*\* 1% error level

Regarding the table 4.1, since Durbin-Watson statistic test value is determined among 1.5 to 2.5, there is no correlation between errors and regression can be used. Regarding significance level of F-test (71.662) in error level less than 0.01, it can be concluded that the regression model is a suitable model and the independent variable are able to describe dependent variable changes. The adjusted coefficient of determination is 0.439; indicating 43.9% of all dependent variables depend on the independent and control variable. As well, Estimated impact factor of director management on IPO underpricing is 0.418, suggesting director management has positive and direct impacts on IPO underpricing. Also, according to significance level of t-statistics, and due to the amount of director management on IPO underpricing (0.084) is more than 5% error level, , H<sub>0</sub> is rejected with 95% confidence level. It can be stated that there is no significant relationship between director management and IPO underpricing.

***Conclusion and Recommendations***

The results indicate that there is no significant relationship between director management and IPO underpricing. In this regard, Trocel et al, (2014) showed that there is no significant relationship director management and performance of Sweden IPO firms. According to the conducted examinations, there is no internal or external research was exactly done about the subject to compare it with this research. Regarding the results of the research hypothesis, it can be inferred that IPO underpricing affected by other factors except capability of IPO firm management. Director management can positively and directly impact on short-term and long-term performance of IPO. Therefore, it is suggested to shareholders, investors and other stakeholders to pay much attention to director management as they decide in IPO firms in order to achieve the expected return.

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