# Gender Differences on Bias of IPO Earnings Forecasts 

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#### Abstract

This study investigates whether the gender differences of audit committees influences the bias of earnings forecasts. Using earnings forecasts data disclosed in the IPO prospectuses, this study made a comparison with the actual earnings reported in the first publish annual reports to identify such bias. The bias in earnings forecast is divided into two components: pessimistic and optimistic. The univariate analysis is applied using IPO companies that went public during the period 1999-2008 where the requirement on earnings forecast disclosure in Malaysia is mandatory. This study finds that companies having female directors on the audit committee have greater negative forecast errors (optimistcs forecasts bias) than companies having only male audit commitee.


Key words: Corporate governance, earnings forecasts, female directors, gender, Malaysia

## INTRODUCTION

The gender of boards of directors has received international attention as an imperative component of inclusive growth. In some countries, including Malaysia, gender composition is now a policy (Ahmad, 2012). Behavioral differences in gender have not been extensively studied in corporate finance (Huang and Kisgen, 2013). In areas such as finance, pyschologists find that men are more confidence than women (Barber and Odean, 2001). Malmendier and Tate (2005) suggest that personal characteristics are important for a better understanding of corporate decision making. In a more recent study, Huang and Kisgen (2013) find that men provide narrower ranges for earnings forecasts than female, suggesting that men are overconfidence than female. Build on the study of Huang and Kisgen (2013), the present study examines whether the female audit committee give more pessimistic forecast given by greater positive forecast errors. This is the first study that examines the impact of audit committee's gender on mandatory earnings forecast in Malaysia.

Prior studies (e.g., Barber and Odean, 2001; Huang and Kisgen, 2013) suggest that men are more overconfident relative to female. Malmendier and Tate (2005) use the term overconfidence to differentiate between the overestimation of one's own abilities and outcomes relating to one's own personal situation from the general overestimation of exogeneous outcomes. However, Ben-David define overconfidence as a general miscalibration in beliefs. By splitting investors on gender, Barber and Odean (2001) predict that overconfidence
investors trade excessively. Analyzing the common stock investments of men and women, they find that men trade $45 \%$ more than women. Their results indicate that greater overconfidence leads to greater trading. In a more recent study, Huang and Kisgen (2013) investigate corporate financial and investment decisions made by female executives relative to male executives. They test the male overconfidence hypothesis using earnings forecasts data. They find that female executives give wider earnings forecasts range than those with male executives suggesting that men exhibit relative overconfidence (Huang and Kisgen, 2013) use the term overconfidence to include both overconfidence and optimism. In major corporate decision making compared with female. Therefore, this study expects that men will generally be more overconfident about making earnings forecasts decision than women. Based on the above the present study proposes that effective board in the form of female directors is associated with pessimistic bias earnings forecast.

This study provides new findings and knowledge on gender difference of board of directors in influencing the level of bias of earnings forecasts. This is the first study that examines the gender differences in the context of IPO. This study has implications for regulators and policy makers, since the presence of a female director, especially in the audit committee may affect management decisions, and the bias of reported earnings. The presence of female members on the board may further enhance public confidence on the companies that are seeking a listing on the Bursa Malaysia. The analyses done on gender differences on the behavior in disclosing the company's
earnings forecast can serve as guidelines for the investors to make investment decisions in selecting the appropriate IPO companies to invest in. Moreover, this study is also useful for the academic researchers to extend further research in this area.

This study contributes to the existing literature on gender in three aspects. First, this study provides a direct test whether more overconfidence leads to more optimistic forecasts. Second, the findings are significantly important in the current corporate governance discussions. Third, this study will highlight the importance of having women on corporate boards, a policy that has been introduced by the Malaysian government recently.

## MATERIALS AND METHODS

Measure of earnings forecast bias: This study examines the bias in earnings forecasts to test for men overconfidence hypothesis proposed by Huang and Kisgen (2013). The forecast bias for the IPO sample is measured by the sign of Forecast Error (FE). Similar to Ahmad and Hussin (2010) and Gounopoulos (2011), forecast error is calculated as the difference between actual earnings reported in the first published annual report after IPO minus forecasts earnings disclosed in the IPO prospectus divided by the absolute forecasts earnings:

$$
\mathrm{FE}_{\mathrm{i}}=\frac{\mathrm{A}_{\mathrm{i}}-\mathrm{F}_{\mathrm{i}}}{\left|\mathrm{~F}_{\mathrm{i}}\right|}
$$

Where:
$\mathrm{FE}_{\mathrm{i}}=$ Forecast error for company i
$\mathrm{A}_{\mathrm{i}}=$ Actual earnings of company i reported in the first published annual report after IPO
$\mathrm{F}_{\mathrm{i}}=$ Forecast earnings of company i disclosed in the IPO prospectus

This study indicates 'optimistic' bias forecasts if forecast earnings are greater than actual earnings (forecast error is $<0$ ). Conversely, this study specifies 'pessimistic' bias if forecast earnings are lower than actual earnings (forecast error is more than 0 ). Adopting Sun and Lui's argument, negative and positive errors neutralize each other therefore average forecast error across companies may not precisely reflect the average magnitude of forecast errors.

Sample selection and data: The present study identifies IPOs listed on Bursa Malaysia from Jan 1999-2008 for which a profit forecast was mandatory to be included in the prospectus. The sample are confined to Main Market companies, excluding two companies that are listed via
introduction, four insfrastructure project companies and seventeen financial companies. This study also excluded two IPO companies that have incomplete information due to missing prospectus. Of the 280 IPOs listed during the period under study, 255 companies met the criterias and became the final sample. The most widely represented industrial sectors in the sample are Industrial Products ( $40 \%$ ), followed by Consumer Products ( $24.31 \%$ ) and Trading/Services (21.96\%). The remaining of IPO companies in the sample is from the Construction (3.53\%), Plantation (3.53\%), Properties (5.49\%) and Technology sector (1.18\%).

Data on board of directors and audit committees characteristic (i.e., gender) and earnings forecasts were hand-collected from the offering prospectuses available on the Bursa Malaysia website. The actual earnings data were collected from the annual reports that are produced immediately after the companies going public.

## RESULTS AND DISCUSSION

This study presents the main results of gender difference in disclosing earnings forecasts bias. Table 1 reports the gender representation of the board of directors and the audit committees in Malaysia listed companies at the time of public offerings during the period Jan 1999-2008. In total, there are 104 companies ( $41 \%$ of the sample) having female representation on the board in our sample. The percentage of companies having female directors is similar to what was found by Ahmad (2012) in her study using a sample period of 1999-2006. Columns three and four report the number and percentage of companies having female board representation, meanwhile columns five and six report the number and percentage of companies having female audit committee representation. The major percentage of companies having female board representation occurs for companies that went public in $2003(51 \%)$ but none in 2008. This non-existence of female board representation is due to the companies included in the sample is just for those that are listed on January 2008. This study only stop at January 2008 as the ending period of the study because starting from February 2008, the earnings forecasts disclosure requirement is no longer mandatory in Malaysia. Similar to female board representation, the female representation on an audit committee appears the most for companies that went public in 2003 (31\%). Even though, nearly $50 \%$ of the sample have female board representation but female audit committee representation is relatively low. There are only 54 companies having female directors on the audit committee which accounts for $21 \%$ of the sample.

Table 1: Female representation of the board of directors and audit committees

| Period | N | Companies having female board representation |  | Companies having female audit committee representation |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | No. | Percentage | No. | Percentage |
| 1999 | 19 | 9 | 47.37 | 2 | 10.53 |
| 2000 | 38 | 15 | 39.47 | 7 | 18.42 |
| 2001 | 19 | 4 | 21.05 | 4 | 21.05 |
| 2002 | 43 | 20 | 46.51 | 9 | 20.93 |
| 2003 | 35 | 18 | 51.43 | 11 | 31.34 |
| 2004 | 41 | 16 | 39.02 | 8 | 19.51 |
| 2005 | 26 | 9 | 34.62 | 7 | 26.92 |
| 2006 | 14 | 4 | 28.57 | 2 | 14.29 |
| 2007 | 18 | 9 | 50.00 | 4 | 22.22 |
| 2008 Jan. | 2 | 0 | 0.00 | 0 | 0.00 |
| All | 255 | 104 | 40.78 | 54 | 21.18 |

This table presents the distribution of companies having female representation of board of directors and audit committees during the period Jan 1999-2008

This study evaluates whether companies having female audit committees provide wider earnings forecasts ranges compared with male audit committees. Earnings forecast bias is defined as the difference between actual earnings minus forecast earnings divided by absolute forecasts earnings. It is found that the mean forecasts error for all companies in the sample is $-2.29 \%$. The results show that on average, Malaysian IPOs have negative earnings forecast errors, indicating managers have overestimated the earnings disclosed in the IPO prospectus. This results is similar to previous Malaysian evidence by Ahmad and Hussin (2010) who found the mean forecast error of $-3.50 \%$ (optimistic forecast) but in contrast to Jelic et al. (1998) who found a positive mean forecast error of $+33.37 \%$ (pessimistic forecast).

Models of overconfidence by Barber and Odean (2001) and Huang and Kisgen (2013) predict that women who are generally less overconfidence will have greater positive forecast errors and more pessimistically bias in making earnings forecasts than men. Interestingly, this study finds the reverse. Companies having female directors on the audit committee have greater negative mean forecast errors (mean $=-5.23 \%$ ) than companies having only male audit commitee (mean $=-1.50 \%$ ). The results do not confirm that men are overconfident than female.

Undoubtedly, this study is based on Malaysian data and the results cannot be simply generalized to other countries. To improve our knowledge on gender differences, it is recommended that future studies should include worldwide data that allow a comparison of gender differences in diverse countries. Future study should investigate whether having female directors on the board will provide better returns to investors in the post-IPO periods. This will create better insight in the gender-based
differences. It is also suggested that the study on gender differences should focus not only IPO companies but also existing established listed companies.

## CONCLUSSION

The results are not in line with the argument that men are overconfident than female, suggesting that the hypothesis does not hold in the Malaysian market. This research contributes to the literature on gender especially on earnings forecasts disclosure by IPO companies.

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