

## Does the 'Business Case' for Academic Directors on Corporate Board Stand Up?

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### Abstract

*This study aims to investigate the business case of academic directors on the boards of randomly selected 350 non-financial Malaysian listed companies for 5 years from 2010 to 2014. The findings revealed that only 6.56% of the board seats held by academic directors. By employing Seemingly Unrelated Regression (SUR) and Driscoll-Kraay Standard Errors (DKSEs), the study also found that professor not only enhances the independence of the board but also improves ROA and firms' market value. Furthermore, the study also noted that the shareholders appreciate the nomination of a professor to the board. The study contributes to the scarce and incongruent prior literature that not only overlooked the presence of a professor on the board but also relied on small samples composed of the top companies in developed countries.*

**Keywords:** Academic Director, Board Independence, Firm Financial Performance, Firm Market Value, Investors Reaction, Malaysia

### Introduction

Agency theory assumes that boardroom heterogeneity strengthens monitoring and advising roles of the board through augmenting its independence (Fama & Jensen, 1983). Likewise, upper echelon theory also supports heterogeneity at the top for improving the unique, complex and non-routine decisions. Following the postulations of signaling, legitimacy and stakeholder theories, boardroom diversity improves the legitimacy, image, and market value of the firm (Akerlof, 1970; Rahman, Ibrahim, & Che-Ahmad, 2017b). The resource-based view and resource dependency theories also assume that heterogeneous boards are good in countering different pressures, connecting firms with resources, strengthening networks and responding to the new challenges posed by the internal and external environments (Pfeffer, 1972; Pfeffer & Salancik, 1978).

Based on the discussed theoretical assumptions, it is inferred that the nomination of academic directors strengthens intellectual heterogeneity on the board that augments its cognitive

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independence. Also, academic directors are expected to improve firms' financial performance by uplifting the quality of boardroom decisions. In addition, it is also assumed that academic directors on the board increase firms' market value and investors' confidence by pronouncing their recognition and positive image in the eyes of customers and society (Francis, Hasan, & Wu., 2011). Accordingly, being a fast-growing emerging economy, Malaysia also recommends improving boardroom diversity in commentary # 2.2 of its newly introduced CG code in March 2012 for strengthening the cognitive and intellectual independence of the board (PWC, 2012). However, the academic directors are also criticized for a lifelong professional experience in teaching and research that is of no value in practical business (Maher & Munro, 2000; Peterson & Philpot, 2009). Following Arioglu (2015), academic directors are treated as out-group individuals who reduce the effectiveness of the board. Therefore, shareholders also do not believe in the skills of academic directors, particularly in regard to watching and guiding managers.

Based on the rare focus of the prior literature on the intellectual heterogeneity and incongruent findings, this study investigates the impact of on the independence of the board, ROA, firms' market value and investors' reaction in Malaysia. Unlike most of the previous boardroom diversity studies which employed a sample of top companies only, this study uses a sample of 350 non-financial firms randomly selected from the companies listed on Bursa Malaysia for 5 years from 2010 to 2014.

## Literature Review and Hypotheses Development

### *Academic Directors and Board Independence*

The nomination of professors to the board enriches and amplifies analytical and logical boardroom heterogeneity which strengthens the cognitive and cerebral independence of the board (Carter, Simkins, & Simpson, 2003; Fama & Jensen, 1983). Professors are more independent by virtue of their previous experience to work autonomously in education and research institutions (Peterson & Philpot, 2009). Besides acquiring non-routine or non-public information from students, colleagues, and peers, academic directors also have the required intellectual capabilities to accurately process the acquired information and ensure effective surveillance of managers (Lehn, Patro, & Zhao., 2009; Rahman, Ibrahim, & Che-Ahmad, 2017a). Furthermore, they are also less willing to compromise on their reputation, particularly in regard with watching managers which strengthens the independence of the board (Fama & Jensen, 1983; Jensen & Meckling, 1976). As compared to other colleagues, academic directors are viewed to be

more independent, particularly due to their qualification, experience, and low social ties with inside directors and management, which enhance the quality of monitoring and advising, among others (Carter et al., 2003; Fama & Jensen, 1983).

However, on contrary, it is also noted that independence of the board and the subsequent increased monitoring as a result of high regulatory and academia focus (Fama and Jensen, 1983) has impaired its other roles (Adams & Ferreira, 2007; Rahman, Rehman, & Zahid, 2018). In view of this, some authors recommend the nomination of academic directors due to their unique skills (Ararat, Black, & Yurtoglu, 2016; Rahman et al., 2017a). The expertise hypothesis endorses that academic directors are preferred over others on account of their effective advising and counseling (Audretsch & Lehmann, 2006; Rahman et al., 2017b). To sum up, there is a need for further investigation on the basis of the following hypothesis.

*H1: The presence of an Academic director on the board has a significant positive impact on board independence.*

#### *Academic Directors and Firms' Financial Performance*

Academic competences, cerebral independence and the acquisition along with the good processing of information associated with academic directors improve boardrooms' decision-making process, among others (Rahman et al., 2018). Theoretical understanding and critical attitude of the academic directors grant firms a competitive edge over their competitors in uplifting the quality of decisions which improve their performance (Adams & Ferreira, 2007; Audretsch & Lehmann, 2006; Lehn et al., 2009). Aligned with these, agency theory also provides an anchor to the non-management or academic directors for improving firms' financial performance (Van der Walt & Ingley, 2003). In contrast, it is also argued that academic directors are not good directors as they spend substantial time in non-profit organizations which are much different than business organizations and their activities (Peterson & Philpot, 2009). Based on mixed arguments and findings of the scarce prior literature, this study establishes the following hypothesis for further investigation.

*H2: The presence of an Academic director on the board has a significant positive impact on firms' financial performance (ROA).*

#### *Academic Directors and Firms' Market Value*

By virtue of having students, colleagues, and peers at various key positions, academic directors facilitate firms in establishing alliances, liaison, and cooperation with other organizations especially universities, research-oriented institutions, and banks, among others. Besides others, this improves firms' authenticity, recognition, and

acceptability at large which increases their market value (Maher & Munro, 2000). Following Resource dependency theory, it is assumed that firms nominate academicians for benefiting from their connections and relations, particularly with politicians and other high-ups which increase firms' value (Audretsch & Lehmann, 2006; Rahman et al., 2017b). According to signaling theory, the presence of academic directors contributes to firms' market value by signaling their positive image to market and society (Akerlof, 1970; Carter, D'Souza, Simkins, & Simpson, 2010). In view of the discussed theoretical assumptions and scarce mixed empirical literature, this study establishes the following hypothesis for further investigation.

*H3: The presence of an Academic director on the board has a significant positive impact on firms' market value.*

#### *Academic Directors and Investors' Reaction*

Following agency theory, the academic directors who strengthen the independence of the board are believed to protect shareholders' interests. It has been found that stock market positively reacts to the appointment of an academic director to the board (Ararat et al., 2016; Rahman, Ibrahim, & Che - Ahmad, 2015).

Peterson and Philpot (2009) argued that academicians on the board pronounce valuable intangible assets - knowledge-based assets or intellectual capital which encourages creativity, innovation, and investments in research, brands, and patents. These, in turn, not only accelerate firms' growth but also grant them a competitive edge over competitors. Investors give value to the knowledge, skills, social connections, networks, and reputation of the academic directors for the success of firms. Professors assist firms in accessing the current relevant knowledge and the latest research. Besides, they are also useful members in that to assist firms in developing the budget, plans, and strategies (Ararat et al., 2016; Audretsch & Lehmann, 2006; Lehn et al., 2009). However, in contrast, it is also argued that shareholders do not consider academic directors as good advisors or experts than their other counterparts particularly executive directors. Based on these findings of the scarce literature mostly carried out in developed countries, this study establishes the following hypothesis for further investigation.

*H4: The presence of an Academic director on the board has a significant positive impact on firms' market value*

#### **Research Design**

The study includes the age and size of the sample firms along with board size and CG code as control variables. Among 960 companies registered in 12 sectors on Bursa Malaysia at the end of 2009, this

study selected a stratified random sample of 350 non-financial listed firms for 5 years from 2010 to 2014. The study did not consider sectors like finance, hotels, and mining due to their different governance requirements and a low representation. Data for academic directors collected manually from annual reports of the sample companies while data for all other variables extracted from Thomson Reuters DataStream. Following are econometric models of the study.

$$BIND_{it} = \beta_0 + \beta_1 PROF_{it} + \beta_2 BSIZ_{it} + \beta_3 FAGE_{it} + \beta_4 FSIZ_{it} + \beta_5 COD_{it} + \beta_6 ID_{it} + \beta_7 TD_{it} + \varepsilon_{it} \dots \text{Model 1}$$

$$FP (ROA) = \beta_0 + \beta_1 PROF_{it} + \beta_2 BSIZ_{it} + \beta_3 FAGE_{it} + \beta_4 FSIZ_{it} + \beta_5 COD_{it} + \beta_6 ID_{it} + \beta_7 TD_{it} + \varepsilon_{it} \dots \text{Model 2}$$

$$MV_{it} = \beta_0 + \beta_1 PROF_{it} + \beta_2 BSIZ_{it} + \beta_3 FAGE_{it} + \beta_4 FSIZ_{it} + \beta_5 COD_{it} + \beta_6 ID_{it} + \beta_7 TD_{it} + \varepsilon_{it} \dots \text{Model 3}$$

$$IR = \beta_0 + \beta_1 PROF_{it} + \beta_2 BSIZ_{it} + \beta_3 FAGE_{it} + \beta_4 FSIZ_{it} + \beta_5 COD_{it} + \beta_6 ID_{it} + \beta_7 TD_{it} + \varepsilon_{it} \dots \text{Model 4}$$

Where;

$BIND_{it}$  = The proportion of independent directors on the board of the  $i$ th firm at time  $t$

$\beta$  = Beta

$PROF$  = Dummy variable 1 for a professor on board and 0 otherwise of the  $i$ th firm at time  $t$

$FAGE_{it}$  = Age of the  $i$ th firm at time  $t$  measured by the number of years since listing

$FSIZ_{it}$  = Size of the  $i$ th firm at time  $t$  measured by the log of total assets

$BSIZE_{it}$  = Total number of directors on the board of the  $i$ th firm at time  $t$

$CODE_{it}$  = Malaysian Code on Corporate Governance 2012 measured as 1 for code and 0 otherwise

$ID_{it}$  = Dummy variables for controlling sector-wise effects on the  $i$ th firm at time  $t$

$TD_{it}$  = Dummy variables for controlling time effects of five years on  $i$ th firm at time  $t$

$\varepsilon_{it}$  = Error term of the  $i$ th firm at time  $t$

$FP (ROA)$  = Financial performance measured by ROA for the  $i$ th firm at time  $t$

$MV_{it}$  = Market value of the  $i$ th firm at time  $t$

$IR_{it}$  = Investors' reaction measured by the stock market price of the  $i$ th firm at time  $t$

## Methods and Analysis

### *Descriptive Statistics*

Table 1 shows that only 6.56% of seats of the Malaysian boards are held by professors. ROA and firm market value have average values of 0.0546 and 5.2552 while investors' reaction shows a mean value of RM 1.7842. Sample firms' average life is 16 years. Likewise, the average size of the sample firms and boards are 5.5902 and 7.20 respectively. CODE that represents MCG 2012 provides evidence of its enactment in 2012.

Table 1: Descriptive Statistics

	Minimum	Maximum	Mean	Std. Deviation
BIND	0.23	1	0.4684	0.12293
ROA	-1.092	6.338	0.0546	0.2373
MV	3.73	7.74	5.2552	0.7145
IR	0.01	46.7	1.7842	3.5837
PROF	0	1	0.0656	0.2477
FAGE	1	42	15.9919	7.2496
FSIZ	4.07	7.36	5.5902	0.5889
BSIZ	4	13	7.2006	1.6992
CODE	0	1	0.6	0.4901

#### *Multiple Regression*

With the exception of Table 3, the findings for diagnostic tests reported from Table 2 to Table 5 show heteroscedasticity, serial correlation and cross-sectional dependence in the data. Therefore, this study employed Seemingly Unrelated Regression (SUR) for all models that is robust to heteroscedasticity, serial correlation, and cross-sectional dependence. The estimation is further validated through Driscoll-Kraay Standard Errors (DKSEs).

#### **Findings and Discussion**

Table 2 shows a significant positive association between PROF and BIND which indicates that the presence of a professor on the board strengthens the independence of the board. The statistics which endorse H1 of the study are aligned with the postulations of agency theory that directors with diverse backgrounds, strengthen the independence of the board (Van der Walt & Ingley, 2003) through augmenting the cognitive independence of the board (Carter et al., 2003; Fama & Jensen, 1983). Following previous literature, the findings could be explained in that academic directors are more independent and free from the influence of management and CEO that strengthen the independence of the board (Ararat et al., 2016; Audretsch & Lehmann, 2006; Lehn et al., 2009).

Following Maher and Munro (2000), the findings also have a plausible explanation that academic directors amplify independence

of the board as they possess the ability and courage to ask critical questions and challenge the grey policies of management. The findings endorse prior studies that independence of the board heaps on by intellectual abilities and less social ties of the academic directors with management (Ararat, Black, & Yurtoglu, 2016; Audretsch & Lehmann., 2006; Lehn, Patro, & Zhao., 2009).

Table 2: Professor on Board and Independence of the Board

Variables – BIND	SUR	DKSEs
PROF	0.0387** (0.0117)	0.0387** (0.0049)
FAGE	0.0019*** (0.0004)	0.0019*** (0.0002)
FSIZE	0.0054 (0.0055)	0.0054 (0.0060)
BSIZ	-0.0245*** (0.0018)	-0.0245*** (0.0003)
CODE	0.0186** (0.0059)	0.0186** (0.0030)
Constant	0.5706*** (0.0277)	0.5706*** (0.0351)
Industry Dummies	Yes	Yes
Year Dummies	Yes	Yes
Observations (sample 350 * 5 years)	1750	1750
R Square	0.1341	0.1341
chi2	247.83	F(5, 4) = 2604.40
P	0.0000	Prob> F = 0.0000
Heteroscedasticity Wald Chi2 (01)		32.01
Prob> chi2		0.0000
Serial correlation F (1, 319)		85.720
Prob> F		0.0000
Pesaran's test of cross-sectional independence		27.764
Pr		0.0000

Standard errors in parentheses. Significance = \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 3 shows that PROF has a significant positive association with ROA. The computations which endorse H2 of the study are consistent with agency theory that intellectual capabilities, critical thinking and scientific approach of academic directors improve firms' financial performance through uplifting the quality of boardrooms' decision (Adams & Ferreira, 2007; Audretsch & Lehmann., 2006; Lehn et al., 2009). Following prior studies, the findings could also be explained in that the presence of a professor on the board improves firms' financial performance through expanding

firms' capabilities for creativity and innovation (Hambrick & Mason, 1984; Michel & Hambrick, 1992). In addition, the findings also have a rationale in that professors strengthen monitoring abilities of the board as they are highly critical.

Table 3: Professor on Board and Firm Performance (ROA)

Variables – ROA	SUR	DKSEs
PROF	0.2488** (0.0975)	0.2488** (0.0308.)
FAGE	-0.0112** (0.0035)	-0.0112** (0.0014)
FSIZE	0.3399*** (0.0463)	0.3399*** (0.0201)
BSIZ	0.0645*** (0.0151)	0.0645*** (0.0066)
CODE	-0.1215** (0.0496)	-0.1215** (0.0146)
Constant	-2.1284*** (0.2323)	-2.1284*** (0.0783)
Industry Dummies	Yes	Yes
Year Dummies	Yes	Yes
Observations (sample 350 * 5 years)	1750	1750
R Square	0.0760	0.0760
chi2	131.56	F(5, 4) = 816.34
P	0.0000	Prob> F = 0.000
Heteroscedasticity Wald Chi2 (01)		36.22
Prob> chi2		0.0000
Serial correlation F (1, 319)		14.142
Prob> F		0.0002
Pesaran's test of cross-sectional independence		1.226
Pr		0.2201

Standard errors in parentheses. Significance = \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 4 provides evidence for a significant positive relationship between PROF and firm market value which supports H3 of the study. Following previous literature, the findings could be explained in that professors improve firms' authenticity and recognition in the market and society by establishing alliances and networks with other organizations where their students and peer work (Maher & Munro, 2000; Rahman et al., 2018). Also, these connections help firms in



accessing funds and favor which increase their market value by pronouncing acceptability and legitimacy. The findings also have an explanation that academic directors reflect firms' commitment towards professionalism, discipline, integrity (Hambrick & Mason, 1984; Peterson & Philpot, 2009) and superior quality of human capital that increase their market value (Audretsch & Lehmann, 2006).

Table 4: Professor on Board and Firm Market Value

Variables – MC	SUR	DKSEs
PROF	0.1205** (0.0353)	0.1205** (0.0067)
FAGE	0.0002 (0.0012)	0.0002 (0.0011)
FSIZE	1.0289*** (0.0168)	1.0289*** (0.0263)
BSIZ	0.0196*** (0.0055)	0.0196** (0.0040)
CODE	0.0096 (0.0180)	0.0096 (0.0140)
Constant	-0.6554*** (0.0842)	-0.6554** (0.1031)
Industry Dummies	Yes	Yes
Year Dummies	Yes	Yes
Observations (sample 350 * 5 years)	1750	1750
R Square	0.7637	0.7637
chi2	5171.60	F( 5, 4) = 8847.7
P	0.0000	Prob> F = 0.000
Heteroscedasticity Wald Chi2 (01)	47.14	
Prob> chi2	0.0000	
Serial correlation F (1, 319)	142.853	
Prob> F	0.0000	
Pesaran's test of cross-sectional independence	21.553	
Pr	0.0000	

Standard errors in parentheses. Significance = \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 5 shows that PROF has a significant positive association with investors' reaction. The statistics which support H4 of the study indicate that professors are independent and thus can raise questions over those policies of management which may harm the interests of investors (Fama & Jensen, 1983; Jensen & Meckling, 1976). Accordingly, investors believe in the presence of a professor on the

board for the protection of their interests. Also, the findings could be explained in that academic directors magnify merit, competency, professionalism, and transparency of the firm and hence stock market positively reacts to their appointment (Ararat et al., 2016). Furthermore, the findings are logical as shareholders give value to the knowledge, skills, and above all contacts of the academic directors with politicians and other high ups which help firms in connecting with resources and getting legitimate favor (Ararat et al., 2016; Audretsch & Lehmann., 2006; Lehn et al., 2009).

Table 5: Professor on Board and Investors' Reaction

Variables – SP	SUR	DKSEs
PROF	0.2647** (0.0798)	0.2647** (0.0264)
FAGE	0.0126*** (0.0029)	0.0126** (0.0029)
FSIZE	0.9047*** (0.0378)	0.9047*** (0.0378)
BSIZ	0.0450 *** (0.0124)	0.0450** (0.0071)
CODE	0.0881** (0.0405)	0.0881 (0.0547)
Constant	-5.6535*** (0.1900)	-5.6535** (0.1377)
Industry Dummies	Yes	Yes
Year Dummies	Yes	Yes
Observations (sample 350 * 5 years)	1750	1750
R Square	0.3817	0.3817
chi2	987.95	F( 5, 4) = 29101.6
P	0.0000	Prob> F = 0.000
Heteroscedasticity Wald Chi2 (01)		1442.47
Prob> chi2		0.0000
Serial correlation F (1, 31the 9)		192.591
Prob > F		0.0000
Pesaran's test of cross-sectional independence		29.350
Pr		0.0000

Standard errors in parentheses. Significance = \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

### Conclusion, Recommendations and Future Directions

This study which investigated the business case for academic directors found that despite a high focus of the public and regulatory authorities only 6.56% of seats of the Malaysian boards could be held by professors. The robust findings revealed that professors strengthen

the independence of the board which implies that education and experience of academic directors grant firms an edge to attain true independence of the board. The findings also provide evidence that professors improve firms' financial performance which might be due to their critical approach and effective monitoring. Furthermore, the findings show that professors assist firms in increasing firms' market value and shareholders' confidence. These findings have a plausible explanation that professors have contacts which facilitate firms in getting loans and other legitimate favors. Also, they raise voice for the betterment and welfare of all stakeholders including shareholders in the board meetings which improve firms' market value and shareholders' confidence. In view of these, the current representation of professors on the board, despite a recent regulatory attempt to increase boardrooms' heterogeneity on the Malaysian board, is quite low and need to be increased.

This study contributes to the limited and incongruent literature as most of the previous studies conducted in the context of developed countries. Also, the prior literature not only overlooked the presence of professor on the board but also relied on the small sample of top companies which do not reflect the true picture of the economy. Furthermore, the study also contributes to the methodology that the estimation of SUR and DKSEs are almost similar and thus these estimators can be used interchangeably. In regard to practice, the findings of the study provide important insights for policy and regulations in developing countries particularly Malaysia. Besides the qualitative aspect, future studies could also validate the findings by investigating the topic in other emerging economies.

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