A photograph of the Flinders Street Station in Melbourne, Australia, featuring its iconic clock tower and arched entrance. The building is a grand, ornate structure with a large central dome and multiple smaller domes. The entrance is a large archway with the words 'FLINDERS STREET STATION' above it. People are seen walking on the sidewalk in front of the station. The sky is clear and blue.

# Journal of Business Systems, Governance & Ethics



# **Journal of Business Systems, Governance & Ethics**

Published By

Victoria Law School  
Victoria University

Vol 9, No 2, 2014  
ISSN 1833-4318

Copyright © Victoria University, 2014

Victoria University  
PO Box 14428  
MELBOURNE VIC 8001  
AUSTRALIA

**Editor**

Professor Anona Armstrong

**Associate Editors and Journal Management Board**

Professor Anona Armstrong, Associate Professor Arthur Tatnall, Professor Ronald Francis, Dr Paul Darbyshire, Professor Andrew Clarke, Dr Kumi Heenetigala.

**International Editorial Review Board members**

Dr Michael Segon, Professor Elaine Martin, Professor John Zeleznikow, Dr Ron Kluvers, Dr Aster Yong, Dr Susan Zeidan, Dr Beverley Lloyd-Walker, Professor Helen Borland, Adv Andy Schmulow, Dr Emilia Bellucci, Karen Mather, Andrew Vincent.

The *Journal of Business Systems, Governance and Ethics* is published by Victoria University in online format for no charge. Printed copies are available, for a fee, upon request.

All articles published in this journal were subject to a process of blind peer review by at least two reviewers before selection for publication by the Editorial Board.

Submissions are welcome for research articles of between about 5,000 and 10,000 words in any area relevant to the journal's wide coverage. Potential articles can be submitted online: [www.jbsge.vu.edu.au](http://www.jbsge.vu.edu.au) or be sent to [Kumi.Heenetigala@vu.edu.au](mailto:Kumi.Heenetigala@vu.edu.au) at Victoria University.

**Copying for educational purposes**

The *Journal of Business Systems, Governance and Ethics* is published in both online and print formats. Educational and non-profit institutions are granted a non-exclusive licence to utilise this document in whole or in part for personal or classroom use without fee, provided that correct attribution and citation are made and this copyright statement is reproduced. Any other usage is prohibited without the express permission of the publisher. For details of the CAL licence for educational institutions please contact the Copyright Agency Limited at [info@copyright.com.au](mailto:info@copyright.com.au).

Victoria University Library provides access to this journal via the Library Open Access and EBSCO. <https://jbsge.vu.edu.au/>

# Journal of Business Systems, Governance and Ethics

Vol 9, No 2, 2014

## Contents

---

**Editorial ..... v**

*Anona Armstrong*

**Compliance Costs of Regulation for Small Business ..... 1**

*Phil Lewis, Alice Richardson and Michael Corliss*

**The Relationship Between Corporate Governance  
and Financial Performance of Small Corporations in Australia ..... 25**

*Yongqiang Li, Anona Armstrong and Andrew Clarke*

**Determinants of FDI: Does Democracy Matter? ..... 41**

*Hasan Farazmand and Mahvash Moradi*

**An Empirical Examination of the Relationship Between  
Information Security/Business Strategic Alignment and  
Information Security Governance Domain Areas ..... 51**

*Winfred Yaokumah and Steven Brown*

**Culture, Values and Integrity in Contemporary Society ..... 67**

*Michael Willoughby Small*





# Editorial

---

This edition of the Journal is the first publication under our new publications management system. It presents an eclectic mix of papers ranging from papers with results drawn from analyses of survey data from small business, to strategic decisions about the factors affecting investment. It concludes with a more philosophical paper which addresses the ethical issues of cultural and moral behaviour in the Australian Defence Force.

The extent of and continuing growth of government regulation has emerged as a major issue for governments. The main problem appears to be compliance and reporting costs. Small business is believed to be the major casualty of this problem. Lewis, Richardson and Corliss's paper describes the results of a study of 391 small businesses in NSW and Victoria. It includes estimates of compliance costs for ten types of regulation, their effect on different sized organisations and how the problems might be addressed.

The second paper into small business by Li Armstrong and Clarke complements the first study. Governance mechanisms have been found to support good firm performance and to add value to corporations. However, these findings are generally drawn from the experiences of large corporations with substantial resources. The study reported in this paper is based on the results of an ARC supported study of 387 small corporations. The results show that corporate governance 'bundles' has a negative impact on the financial performance of small corporations. The results call for a stakeholder approach to meeting the governance needs of small corporations.

Among the strategic decisions made by boards are where to invest in foreign companies and how to ensure the security of intellectual property and company information. The selection of international locations for corporate operations and the associated investment of resources are governance issues. Various factors, including good corporate governance, are believed to attract foreign direct investment (FDI). This paper by Farazmanda and Moradib, explores under what circumstances would democracy be one of these factors. Yankumal and Brown's paper provides an excellent argument to suggest that agency theory, stakeholder theory and resource management theory explain a company's strategic decision to invest resources in information security. Using data collected in a survey they found that the alignment of information security governance mechanisms support risk management, company performance and are value adding.

Small's paper offers a response to the challenges posed by recent reports in the media that the Chief of the Army seeks to change the moral behaviour and culture of the Australian Army. His words demand that defence personnel comply with civil customs, laws and moral values. Small suggests that the study of the writings of classical writers and philosophers who addressed similar issues, may provide some assistance in changing the culture.

In conclusion, the diversity of these papers shows that corporate governance theories and principles are important to a wide range of strategic, operational and ethical contexts. Indeed, their applications illustrate the multidisciplinary nature of the decisions that must be addressed by decision-makers today. From understanding of small business, to decisions about foreign investment, or corporate culture, governance theory has something to contribute. It is this complexity which the Journal of Business Systems Governance and Ethics attempts to address.

Professor Anona Armstrong  
Editor





# Compliance Costs of Regulation for Small Business

Phil Lewis, Alice Richardson and Michael Corliss  
University of Canberra, Australia

---

## ABSTRACT

*There has been growing concern about the extent of government regulation in Australia and its impact on small business. This paper examines the results of a survey of small businesses in NSW and Victoria regarding their experiences relating to compliance with government regulation, the costs to business, and factors inhibiting performance. The paper describes the development of the survey instrument, the administration of the survey, a description of the sample, results of the quantitative part of the survey, and an overview of business owners' comments provided by respondents.*

## Introduction

Small businesses are very important to the Australian economy. They account for over 47 percent of all employment, over 32 percent of wages and salaries, over 30 percent of sales and service income, over 42 percent of operating profit (before tax) and over 35 percent of industry value added (ABS 2012).

It is generally recognised that firms pursuing their own interests in competitive markets generally result in efficient allocation of resources, producing goods and services consumers want at the lowest prices. However, even the strong supporters of free markets acknowledge that some government intervention may be necessary to protect consumers, promote competition, correct for externalities, enforce contracts, protect private property rights, etc. (Lewis et al 2010). In addition, businesses are required to collect taxes and compulsory payments (such as superannuation contributions) on their own behalf and on behalf of employees plus taxes and charges on consumers (for example GST). Most of the regulations are legislated emphasising the benefits to society (for example, health and safety), but it is important that the benefits of such regulation are balanced by consideration of the costs. Just because something is beneficial doesn't mean government has to do it. A regulation is appropriate when the marginal benefit exceeds the marginal cost. It is difficult to believe, and borne out by work such as PC (2007), that the myriad of regulation facing small business can be justified under this criterion.

Costs of regulation can be conveniently divided into direct costs, allocative inefficiency and compliance costs. Direct costs consist of direct charges by government on businesses such as licences, fees, fine etc. These are easily measured and vary between businesses. For instance, a restaurant will generally need to pay for a liquor licence; a medical practitioner will need to be registered and so on.

Copyright © 2014 Victoria University. This document has been published as part of the Journal of Business Systems, Governance and Ethics in both online and print formats. Educational and non-profit institutions are granted a non-exclusive licence to utilise this document in whole or in part for personal or classroom use without fee, provided that correct attribution and citation are made and this copyright statement is reproduced. Any other usage is prohibited without the express permission of the publisher.

We do not consider these costs here.

Allocative inefficiency costs arise because in the presence of regulation businesses will behave differently than they would without regulation (otherwise regulation would not be necessary) with subsequent impacts on the type, quantity and prices of goods and services. For instance, licensing reduces competition which increases

market prices and reduces quantity so that consumer welfare is reduced. Restaurants having to meet industrial relations laws may have the effect of reducing employment and reducing the hours or days in which consumers can get a meal. In the longer term regulation may well stifle innovation by restricting management prerogative on how to organise their business to reduce costs and provide better goods and services at lower prices. Although of considerable interest this aspect of regulation is beyond the scope of this study.

Compliance costs are the focus of this study. Compliance costs fall into three general categories. The first relates to becoming aware of regulations which must be abided by. The second relates to the costs of actually abiding by the regulation. For instance, health and safety regulation might prescribe the purchase of special equipment such as safety guards, helmets, wash basins, first aid kits etc. Compliance might involve hiring particular expertise (accountants, lawyers, for example), taking part in training or having to devote time by owners or staff in educating themselves in what exactly is required under legislation and the costs of non-compliance. The third category of costs relates to demonstrating compliance with legislation. This mostly involves record keeping, which increasingly involves computer packages but is often referred to as paperwork. The boundary between actually complying with legislation and demonstrating compliance can be somewhat blurred. The costs include hiring outside professional help devoting staff to compliance related activities or, quite likely for small businesses, the owner's own time.

## Background

The burden of government regulation upon business has been an important issue for governments around the world since the 1990s. In Australia, as elsewhere these issues have centred on the growth in volume and the complexity of regulation (ACCI 2005). The Small Business Deregulation Taskforce (Bell 1996) identified a number of areas of government business regulation in which the recording and reporting requirements placed upon small business were judged to be excessive. Also it was reported there was a great deal of uncertainty about what was required in order to be compliant with government regulation and dealing with various jurisdictions added additional costs to businesses.

In recent years business groups in Australia have become very vocal about the increasing cost of compliance to business (PC 2007). The concern is less about the objectives of the regulation and more to do with perceived unnecessary additional costs associated with the policy design and implementation. There is legitimate concern over the expansion of regulation since the 1990s. For example, the number of pages of legislation passed through federal parliament since 1990 is more than had been passed during the first 90 years of federation (Banks 2006). While this doesn't automatically mean that the burden to business has increased by the same amount - some pieces of legislation were simply replacing old ones and other legislation was necessary for dealing with important social goals such as motor vehicle safety or pollution - still the cumulative effect has been to considerably increase regulatory burden for business (Banks 2006).

Here the focus is on the costs associated with regulation that is over and above the normal day to day running cost of a business, particularly if the regulation imposes costs upon those being regulated that are unnecessary. Such costs have been defined by the Productivity Commission (2009) as being a regulatory burden and include terms found in the literature, which are used interchangeably, such as compliance costs, administrative costs and regulatory costs (Chittenden et al 2002). Sandford et al (1989) define compliance costs as:

'for individuals, the cost of acquiring sufficient knowledge to meet their legal requirements; of compiling the necessary receipts and other data and of completing tax returns; payments to professional advisors for tax advice; and incidental costs of postage, telephone and travel in order to communicate with tax advisors or the tax office. For a business, the compliance costs include the cost of collecting, remitting and accounting for tax on the products or profits of the business and on the wages and salaries of its employees together with the costs of acquiring the knowledge to enable this work to be done including knowledge of their legal obligations and penalties'

The costs of compliance to business are considered to be substantial, although quantifying these burdens has proved difficult (Banks 2006). Estimates on the conservative side put compliance costs to the Australian economy at tens of billions of dollars annually. The costs of regulation include time, paperwork, capital outlays, and deflection from core business activities. From the submissions sent to the Productivity Commission it is estimated that compliance can take up to 25 percent of the time of senior management and boards of large companies' time (Banks 2006).

A series of studies were undertaken in Australia with the aim of estimating the cost of compliance for the major taxes (Pope et al 1989, 1991, 1992; Pope et al 1990; Evans et al 1996, 1997). These studies focused on the overall cost of compliance costs associated with taxes in Australia. The major finding was that the estimated burdens were high with company income tax creating the greatest burden of all the taxes. Pope et al (1991) estimated that the gross taxation compliance costs were between 11.4 percent and 23.7 percent of revenue yield for the period 1986 to 1987. Evans et al (1997) however, suggests that the Pope studies had overestimated the compliance cost of taxation. They estimated these costs to be just 7 percent of revenue yield.

One area of the literature on the cost of compliance that is quite extensive is that of the cost of compliance for small business. In their review of the literature Chittenden et al (2002) found that in the countries they surveyed governments had accepted that there was a disproportionate cost burden placed upon small businesses. They suggest that the regulatory costs are some 35 percent higher for firms with less than 20 employees compared to firms with over 500 staff, although this figure should not be used as a rule of thumb due to comparison difficulties in the methodology. However, this figure should be seen as the minimum increase in compliance cost placed on small business. In fact it is commonly found that firms with less than 20 employees incur compliance costs that are several times greater than the costs incurred by large businesses (Inland Revenue 1998). In some instances while larger firms actually received a net benefit from regulation in the case of holding on to cash collected on behalf of government, smaller firms incurred a net loss (Sandford and Hasseldine 1992).

In Australia the Small Business Deregulation Taskforce was charged with reviewing the compliance burdens incurred by small business (Bell 1996). It defined small businesses as having fewer than 20 employees in the case of non-manufacturing firms and less than 100 employees in the case of manufacturing firms; and having a turnover of less than \$10 million. The Working Overtime Survey (Small Business Deregulation Task Force 1996), found small businesses were particularly concerned by: the complexity of taxation and employment regulations; administrative and compliance costs of dealing with regulations; lack of coordination between government agencies; poor scrutiny of regulation and review processes; and a lack of effective monitoring mechanisms. The major finding of the report was that, on average, small businesses spend 16 hours a week on administration and compliance costs. Of this, 8 hours are spent with accounts, bookkeeping and paying wages; government compliance and paperwork accounts for 4 hours, taxation matters consume 3 hours, and 1 hour is spent on other activities. In total 7 hours weekly are spent by small business in keeping compliant with government regulation. Additionally, the report suggested that on average small business spends \$7000 on total compliance costs, \$3000 of which is spent on external advice.

Banks (2006) also identifies small businesses as being disproportionately impacted by regulation suggesting that generally small business doesn't have the capacity to deal with and keep up to date with, as he puts it, the 'morass' of government regulation.

Research conducted by Evans et al (1997) and Walpole et al (1999) concluded that small businesses were particularly burdened by the compliance costs associated with taxation especially in terms of the number hours spent. Evans et al (1997) estimated that of all the time taken up with associated taxation compliance in the Australian economy, 90.7 percent of that time was borne by small business. In fact Evans et al (1997) found that large firms had a net benefit from taxation compliance due to tax deductions and cash flow benefits. An important finding is the regressive nature of taxation compliance costs. Evans et al (1997) estimated the average overall compliance costs associated with taxation in 1994/95 for firms with turnover less than \$100,000 was \$24.71 per \$1,000 of turnover, compared to \$0.98 for a medium size enterprise with turnover between \$100,000 - \$9,999,999 and

\$0.60 for a large enterprise with turnover in excess of \$10 million. Other studies have also found taxation compliance costs to be regressive (see, for example, Pope et al 1991).

Various other factors have added to the cost of compliance in Australia. The disconnect and rivalry between levels of government in Australia has thwarted the development of a common legislative framework for SMEs in Australia (Buffini 2007). For example, licensed tradespersons acting in accordance with apprenticeship regulation in one state need to comply with different apprenticeship regulation in another state (Leung et al 2008). There is no single place to look up regulatory requirements. Small businesses must look over at least three political jurisdictions including federal, state and local government. Clarke (2010) reported on the complexity of child care regulation made worse by having both state and federal government involvement. They stated that some plans have been made to share or move power to one of competing authorities, usually the Commonwealth, to reduce the complexity.

The aim of this paper is to fill the gap in the Australian literature regarding a quantification of the costs of regulation in terms of both time and money. It also provides insight into how small businesses perceive the problems they face due to excessive regulation and their suggestions of how the burden of regulation can be eased.

Firstly this paper uses recent data to quantify the costs of compliance in both time and money across ten dimensions. Secondly, to examine the extent to which the costs differ according to firm size and source of advice. And finally, to extract themes for reducing compliance costs as reported by businesses themselves.

The rest of the paper is structured as follows. Exploratory data analysis to describe the sample is reported, followed by tests of the strength of the relationship between dimensions of compliance, cost of compliance and source of advice. The next section explores themes in the free text comments about compliance supplied by the businesses in DARRS 2010.

## **Methodology**

The Developing a Responsive Regulatory System (DARRS) survey was conducted in 2010 in New South Wales and Victoria. After a series of interviews with business leaders, questions were developed to investigate the problems Australian businesses face with regards to government regulation and possible solutions. The researchers approached the members of the branches of the Council of Small Business of Australia (COSBOA) in those two states to administer the survey. The researchers asked the organisations to publish the URL of the survey in their newsletters. Responses to the survey were then collected directly from small businesses who were members of the organisations who published the link. Thus the sampling frame consists of all businesses who were members of organisations belonging to COSBOA in Victoria and New South Wales. There were 391 valid responses to various questions relating to business activity and the costs associated with being compliant with government regulation. The same survey has also been analysed from the point of view of determinants of regulatory burden by Li, Armstrong & Clarke (2010).

## **Sample Description**

Comparisons between the DARRS survey respondents and the profile of Australian businesses derived from the ABS Business Register (ABS 2007) are interesting. These comparisons show that DARRS has proportionately more older businesses with the greatest proportions found in the 10 to 20 years, 31.5 percent, and 20 years and over age category at 38.6 percent, a combined total of 71.5 percent. This compares to the ABS Business Register where the age categories with the greatest representation, 3 to 5 years and 10 to 20 years, have only 20.9 percent and 21.1 percent of the share of businesses, respectively. This indicates that respondents in the DARRS survey are generally more established businesses and this is to be expected given that they have been sampled through COSBOA. Businesses which have only had a short life to date are less likely to be part of business organisations such as COSBOA.

The DARRS survey is dominated by three industries namely retail trade, 17.9 percent, professional services, 15.3 percent, and other services 23 percent of the sample. Businesses from any other industries made up less than 7 percent and some industries, such as mining and public administrations were missing from the sample entirely.

The bulk of businesses in the DARRS survey were in the 1 to 5 employee range accounting for 53 percent of the respondents and the 6 to 20 employees range accounting for 24 percent of respondents. The legal status of the firms in the sample were mainly private companies 70 percent, with another 15 percent listed as a sole proprietor and 9 percent as a partnership. Most of the firms in the sample, 70 percent, had only 1 business site, 15 percent had between 2 to 4 business sites in Australia and 6 percent had 5 or more.

The definition of business size used here is that adopted by Heenetigala et al (2011). A business is defined as small if it has 20 or less employees, medium size if it has between 21 to 50 employees and large if the number of employees is greater than 50. Of those firms in the survey providing details of firm size, 9 percent had no employees, 53 percent had between 1 and 5 employees, 24 percent had between 6 and 20 employees, 8 percent had between 21 and 50 employees and 6 percent had over 50 employees.

## **Results**

The results are reported in three sections:

First, the difficulty of compliance with ten types of regulation is discussed in terms of overall percentages. These percentages are then broken down by firm characteristics comprising firm size, legal status, age of firm and source of advice. These percentages are also broken down by numerical measures of firm performance comprising total sales, net profit and cost of compliance in dollars and cost of compliance in time.

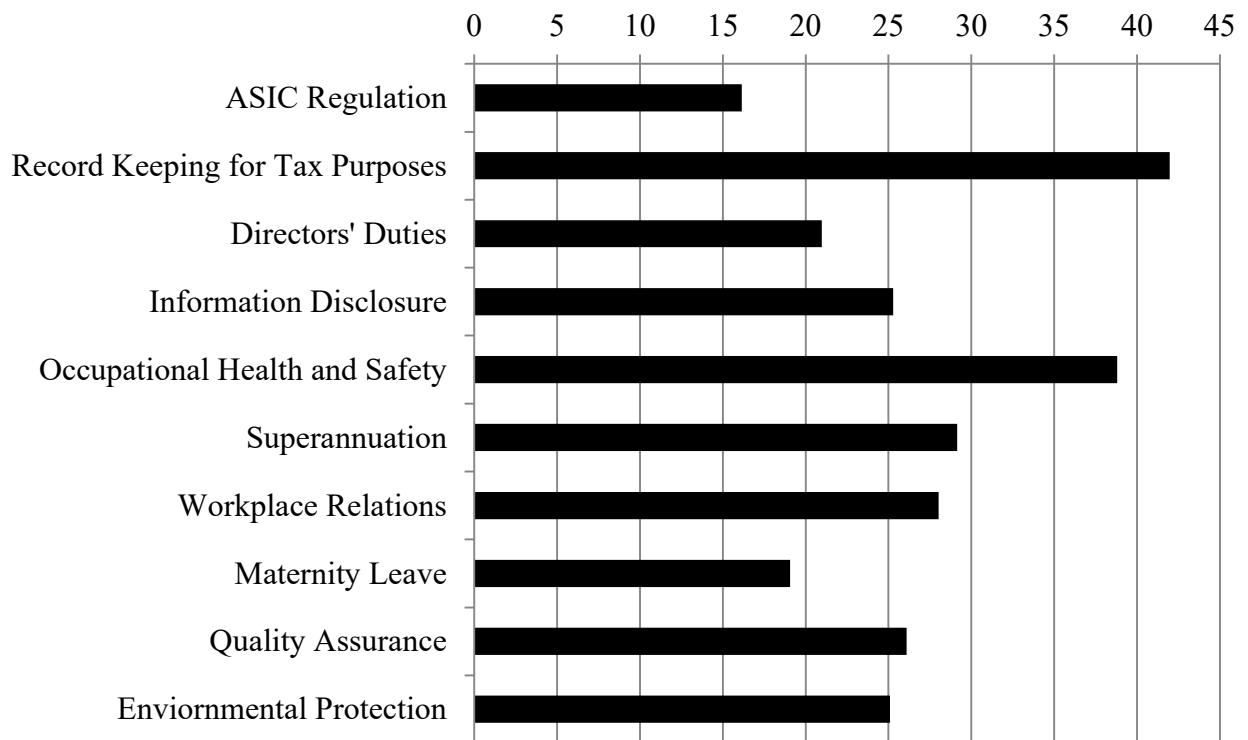
Second, the cost of compliance is estimated across firms of different sizes.

Third, the free text responses of small businesses regarding the difficulty they have complying with regulation are discussed in terms of the ten types of regulation. Followed by the free text responses of small businesses regarding possible solutions to their difficulties are discussed. And a data-driven categorisation of responses is used, loosely based on the ten types of regulation mentioned earlier in the survey.

### **Difficulty with Compliance**

Respondents were asked to rate the difficulty they have had with respect to a number of areas of regulation on a scale of 1, not difficult at all, through to 5, most difficult. Here if a respondent rated a regulatory issue as either 4 or 5 this has been taken to mean the respondent has had difficulty maintaining compliance with this particular issue. In the figures below the number having difficulty are shown as a percentage of all respondents.

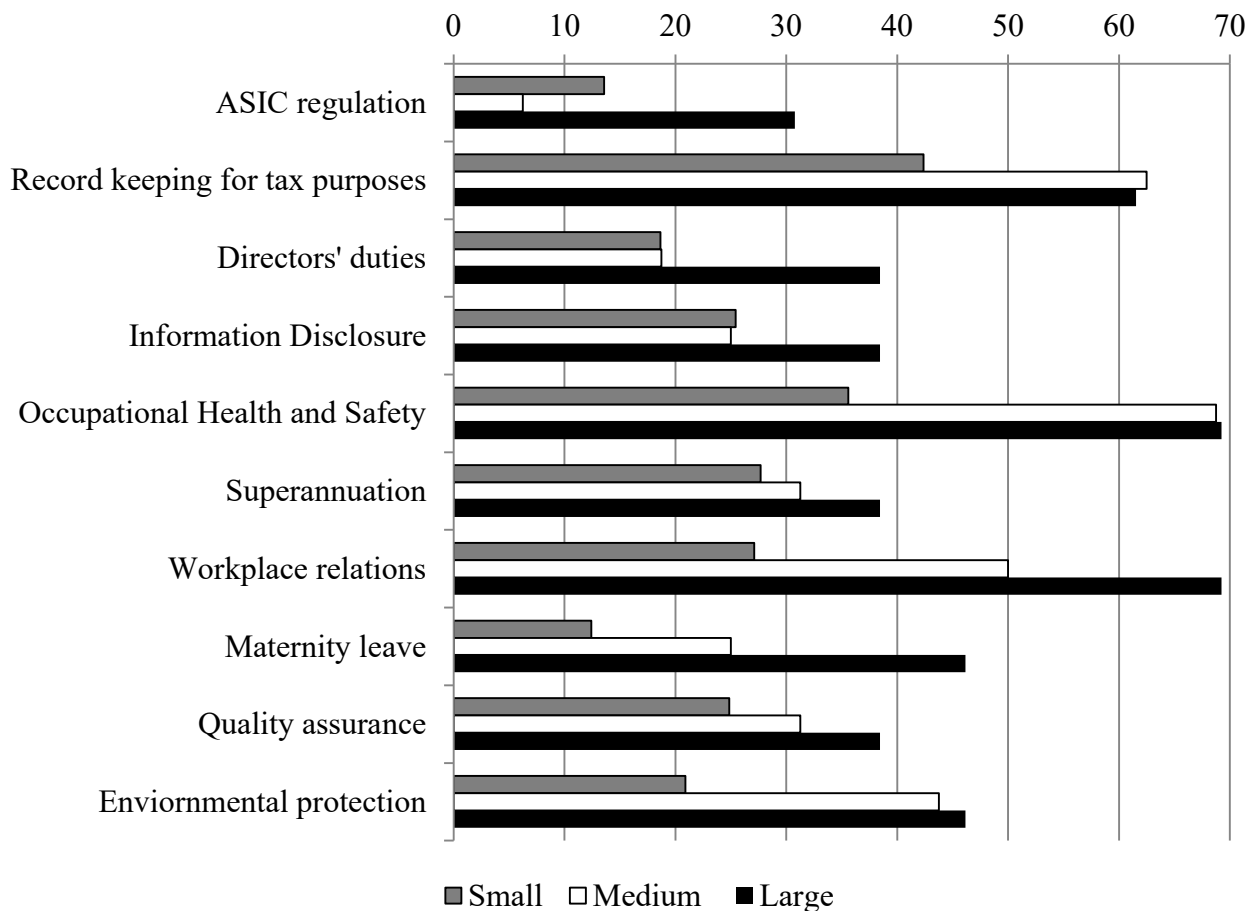
**Figure 1 Compliance Difficulty by Regulation Type, percent.**



Source: DARRS 2010 Survey

Figure 1 shows the proportion of firms having difficulty with compliance by type of regulation. The greatest compliance difficulty appears to be associated with record keeping for tax purposes and occupation health and safety with 42 percent and 39 percent, respectively, of firms indicating they have difficulty with these types of regulation. Additionally, firms in the survey indicated that superannuation and workplace relationships are also quite difficult, although there were fewer respondents indicating difficulty with these types of regulation, 29 percent and 28 percent, respectively. ASIC regulation and maternity leave are associated with less difficulty in maintaining compliance, 16 percent and 19 percent, respectively.

**Figure 2 Compliance Difficulty by Firm Size, percent.**



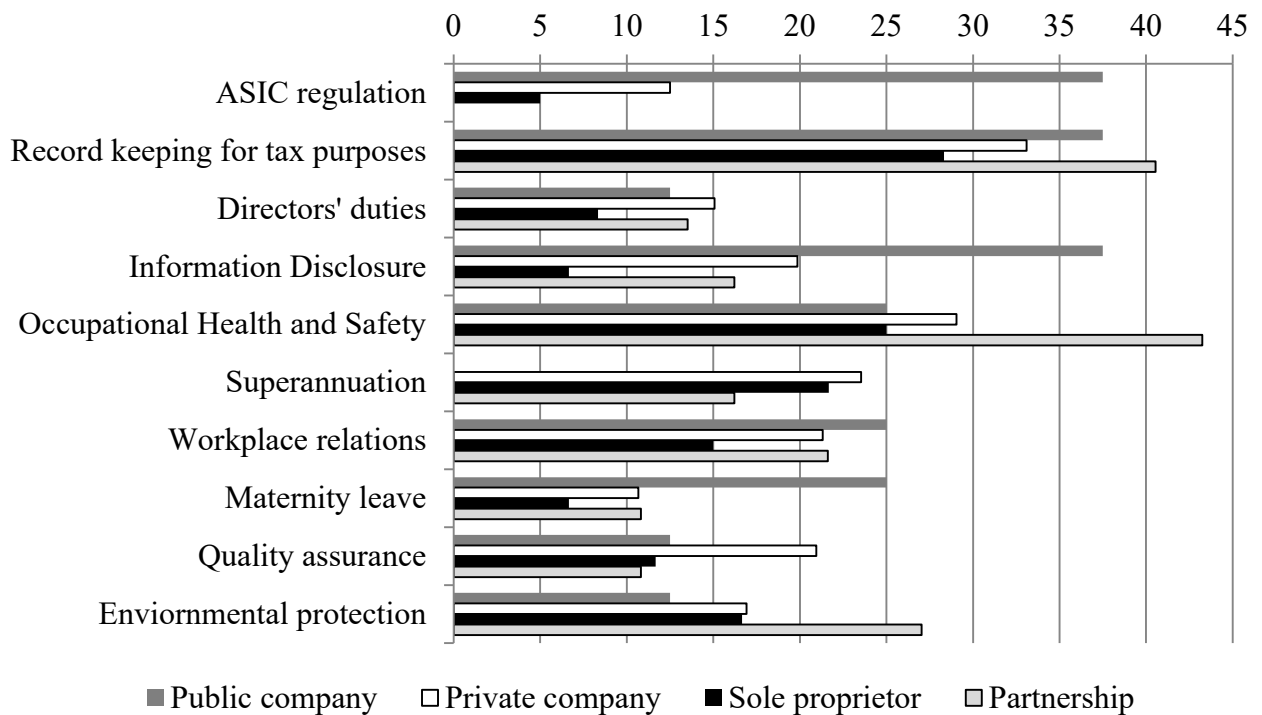
Source: DARRS 2010 Survey

It would be expected that the size of a firm influences the costs associated with maintaining compliance. For the smaller firm, while they may have less regulation to comply with, they also have fewer resources at their disposal. Conversely larger firms, while having more regulations to comply with, they also have greater resources available in order to do so. Figure 2 shows the proportion of firms by firm sizes that have difficulty keeping compliant with government regulation.

It appears that the three greatest problem areas of compliance are in record keeping for tax purposes, Occupational Health and Safety and workplace relationships for medium and large firms. For the larger firms, 69 percent of the firms surveyed had issues with workplace relationships and Occupational Health and Safety and 62 percent had issues with record keeping for tax purposes. Other regulatory areas such as maternity leave and environmental protection were also of concern to a number of large firms. Small firms, it seems, had less trouble dealing with these areas of regulation than did the large and medium size firms. The greatest issues for small firms were found in record keeping for tax purposes, with 42 percent of small firms having difficulty. Also, Occupational Health and Safety was an issue with 36 percent of small firms having difficulty complying



**Figure 3 Compliance Difficulty by Legal Status, percent.**

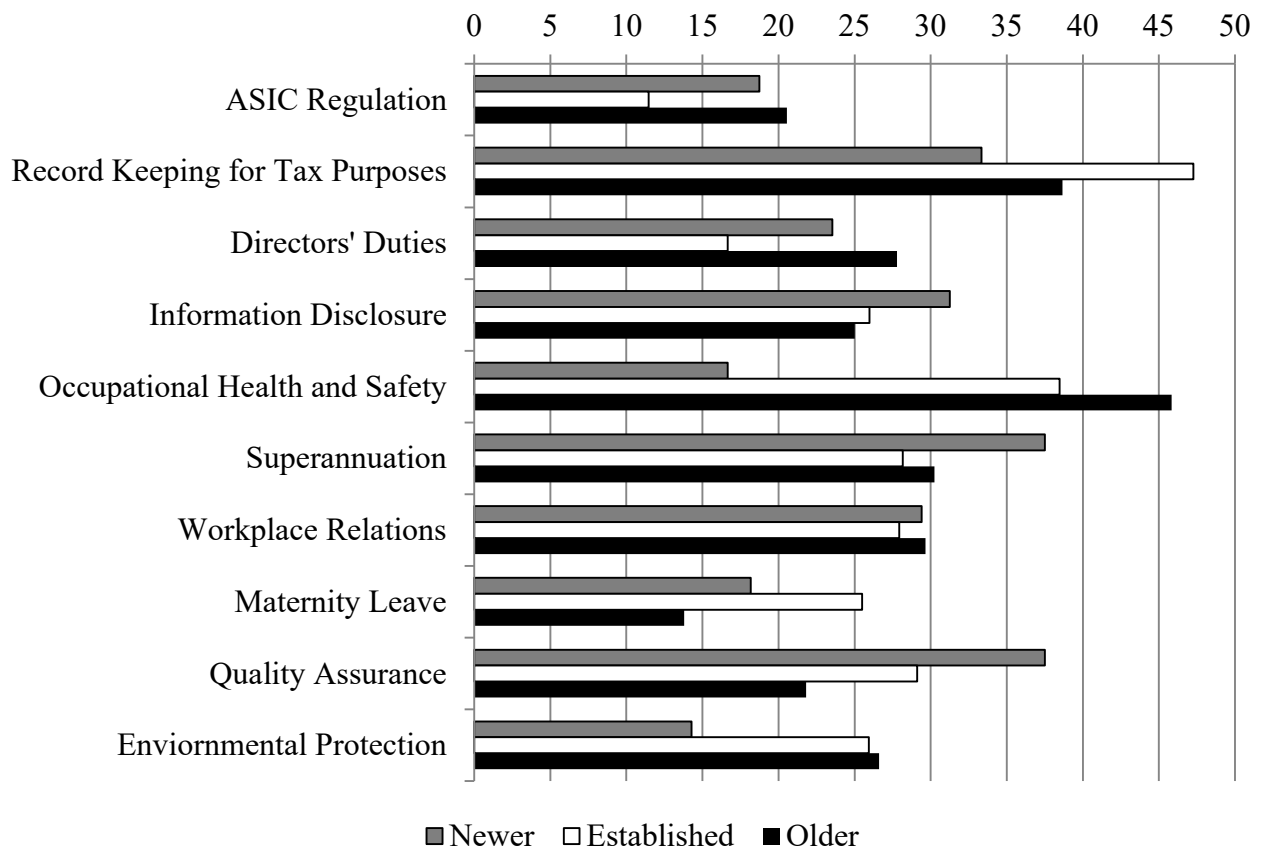


Source: DARRS 2010 Survey

Figure 3 shows the difficulty with compliance by firm legal status. It appears that partnership firms have the greatest difficulty in complying with record keeping for tax purposes, 41 percent, and Occupational Health and Safety, 43 percent. Public firms have the greatest difficulty complying with ASIC regulation, 38 percent, record keeping for tax purposes, 38 percent, and information disclosure, also 38 percent. While private and sole proprietor firms had the least difficulty dealing with record keeping for tax purposes and Occupational Health and Safety, they were still the greatest compliance issues for these types of firms.

Figure 4 shows the percentage of firms that have difficulty with compliance by age of firm. Newer firms are defined to be those less than 5 years old, established firms are 5 to 20 years old and the older firms are ones that have been in business for greater than 20 years. While the greatest difficulty keeping compliant appears to be associated with record keeping for tax purposes and occupational health and safety for the established and older firms, the newer firms tended to struggle with record keeping for tax purposes, information disclosure, superannuation, and quality assurance. The least difficulty with compliance can be associated with ASIC regulation and directors duties for established firms, occupational health and safety, maternity leave and environmental protection for newer firms and maternity leave for older firms.

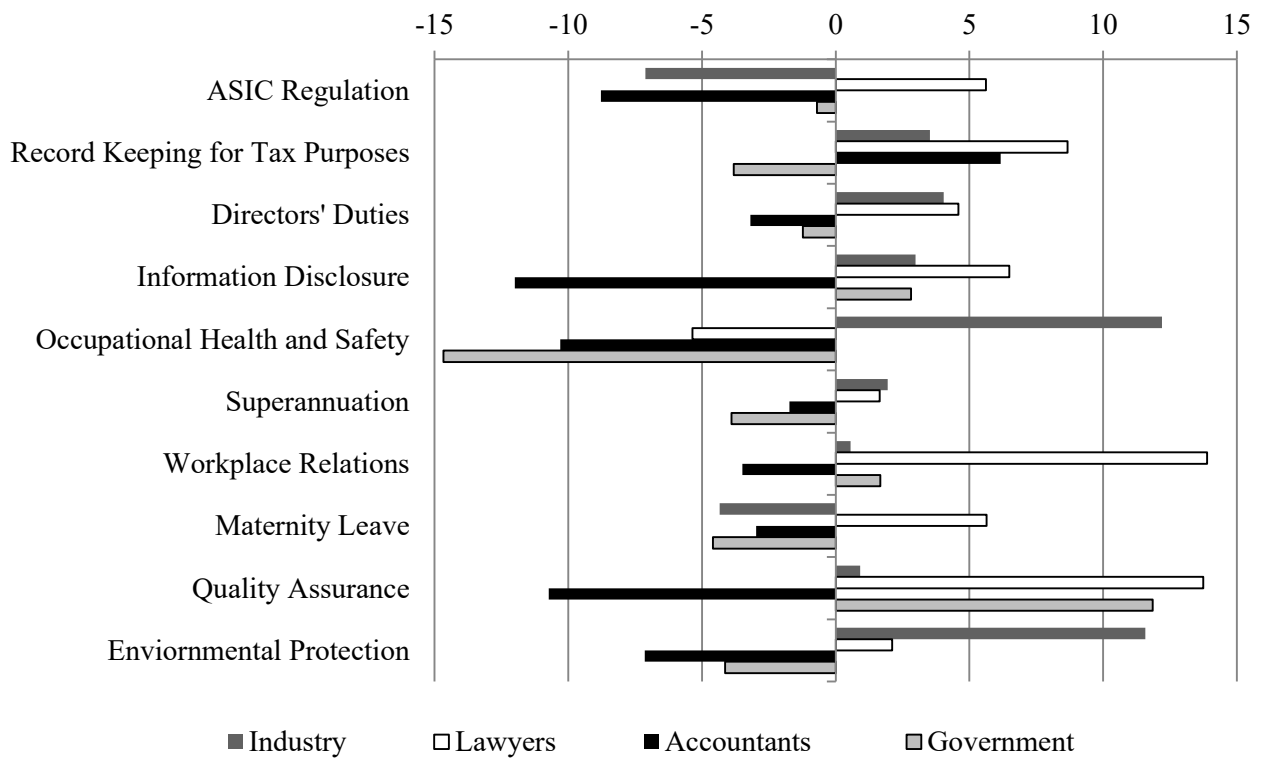
**Figure 4 Compliance Difficulty by Age of Firm**



Source: DARRS 2010 Survey

The data in Figure 5 attempt to examine the extent to which the provision of advice by professionals improves business’s ability to reduce difficulty with compliance. It shows the percentage difference in compliance difficulty between those firms that sought advice and those that didn’t. Bars to the left indicate that businesses experienced decreased difficulty with a particular issue when advice was sought from a particular source. Bars to the right indicate that businesses experienced increased difficulty with a particular issue when advice was sought from a particular source. For example, while 16.2 percent of respondents that sought advice from an accountant found ASIC compliance difficult, 25 percent of respondents that didn’t seek advice from accountant found ASIC regulation difficult, resulting in a -8.8 percent difference. This suggests that seeking the advice of accountants will likely reduce the difficulty firms have with being ASIC compliant.

**Figure 5 Compliance Difficulty by Sources of Advice**

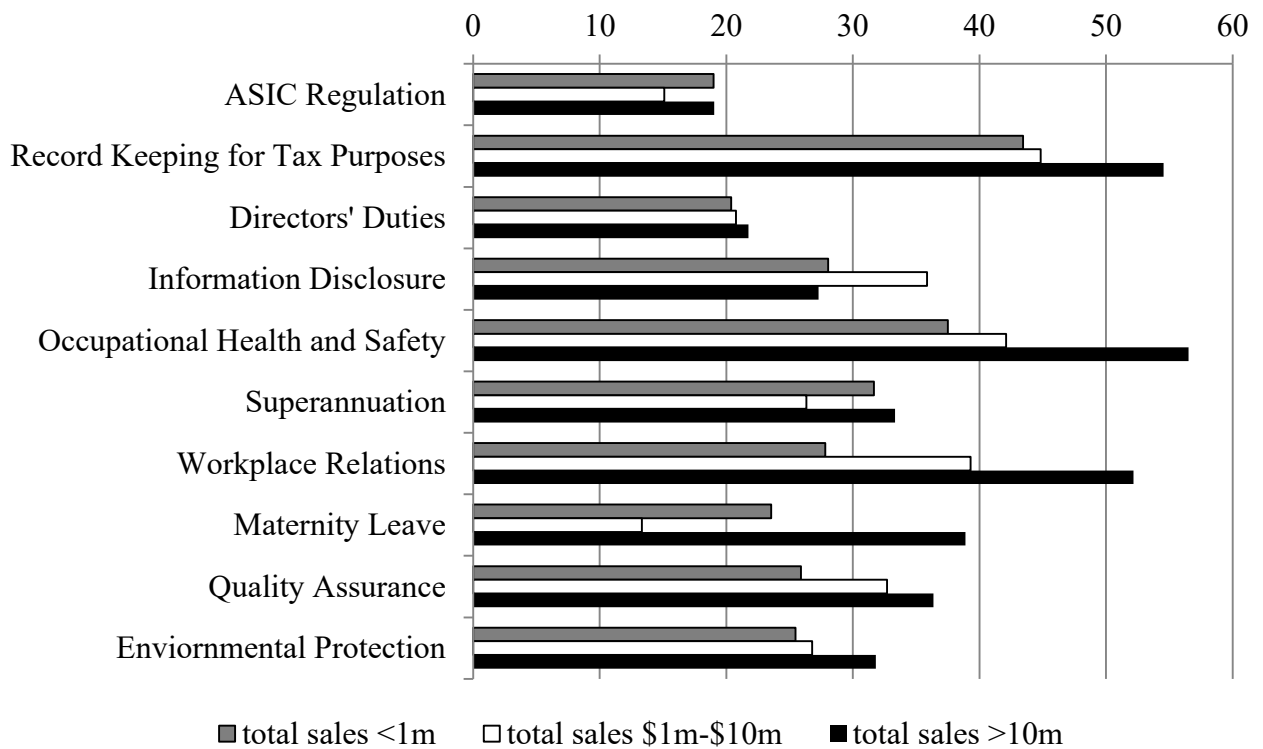


Source: DARRS 2010 Survey

The results suggest that generally accountants and government are the best form of advice and lawyers are associated with being the worst form of advice. Advice from accountants is associated with the greatest reduction in compliance difficulty in ASIC regulation, directors’ duties, information disclosure, workplace relations, quality assurance and environmental protection. Government advice is also associated with the greatest reductions in compliance difficulty for record keeping for tax purposes, occupation health and safety, superannuation and maternity leave. Advice from lawyers, on the other hand, is often associated with greater compliance difficulty, particularly for ASIC regulation, record keeping for tax purposes, information disclosure, workplace relationships, maternity leave and quality assurance. This is likely a reflection not upon the advice given from lawyers but upon matters that have taken place in the workplace that require legal advice.

Figure 6 shows compliance difficulty by total sales. The figure suggests that sales volume is positively associated with compliance difficulty. In particularly this is evident in record keeping for tax purposes, occupational health and safety, workplace relationships, quality assurance and environmental protection. While the positive association is not as clear for maternity leave, businesses with total sales of 10 million and greater did have the greatest difficulty in complying with maternity leave.

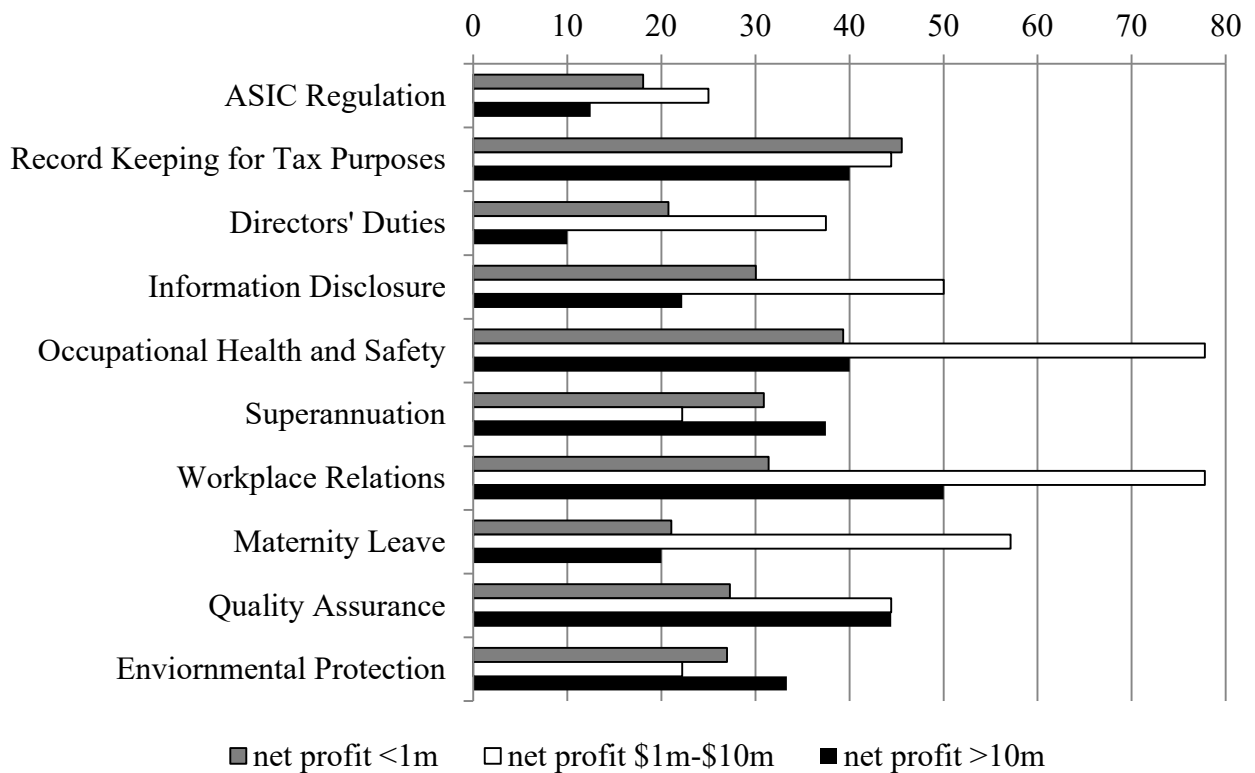
**Figure 6 Compliance Difficulty by Total Sales**



Source: DARRS 2010 Survey

Figure 7 shows compliance difficulty by net profit. Interestingly there is not the same positive association as that associated between total sales and compliance difficulty. Here it appears that the net profit category of \$1-\$10 million is associated with the greatest compliance difficulty. The net profit category of greater than \$10 million is actually associated with a significant reduction in compliance difficulty when compared to the profit category of \$1-\$10million. In fact in some cases of regulation such as ASIC regulation, record keeping for tax purposes, directors’ duties and information disclosure, the net profit category of greater than \$10 million had the least difficulty with compliance. This is perhaps evidence that a competency in dealing with government regulation is significantly associated with better performance, in this case net profit.

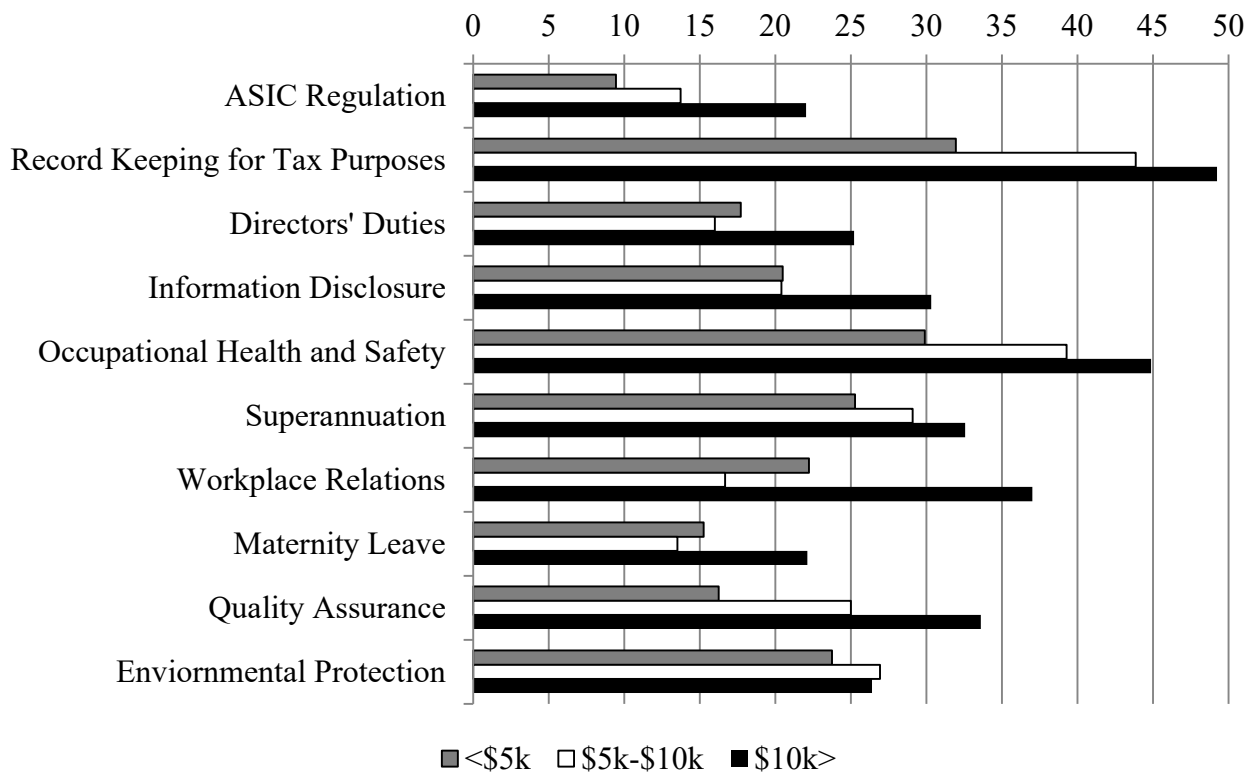
**Figure 7 Compliance Difficulty by Net Profit**



Source: DARRS 2010 Survey

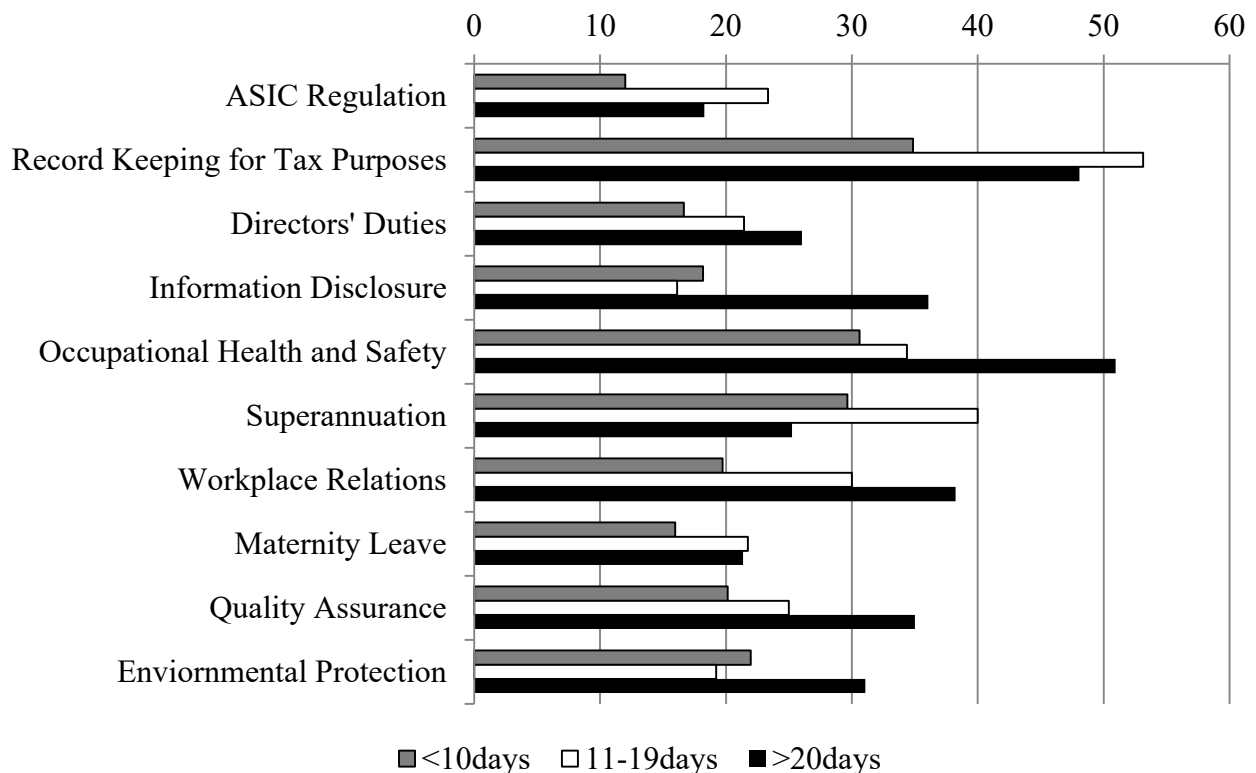
It would be expected that if compliance is more difficult then there would be an increased cost of compliance. This largely borne out by Figure 8 which shows the relation between the difficulty with compliance and the dollar cost of compliance. Generally speaking there appears to be a discernible positive association between the difficulty with compliance and the dollar cost of being compliant. This is the case for a number of the regulation types such as ASIC regulation, record keeping for tax purposes, Occupational Health and Safety, superannuation and quality assurance. For other types of regulation the increase in compliance costs is not as clearly associated with the difficulty in compliance, for example directors’ duties, information disclosure, workplace relationships and maternity leave. However, the highest category for cost of compliance was also associated with the greatest difficulty. This has important implications for any future reform of small business regulation since reducing the difficulty with compliance will also reduce the compliance costs to businesses.

**Figure 8 Compliance Difficulty by Cost of Compliance (\$)**



Source: DARRS 2010 Survey

Figure 9 shows the difficulty with compliance by the cost of compliance in days. As in figure 8, the same positive association between the difficulty with compliance and the cost of being compliant in days exists. This is the case for a number of the regulation types such as directors’ duties, information disclosure, occupational health and safety, workplace relationships, quality assurance and environmental protection.

**Figure 9 Compliance Difficulty by Cost of Compliance (Days)**

Source: DARRS 2010 Survey

### Cost of Compliance

Table 1 below shows the median cost per business of compliance with government regulation by firm size as measured by number of employees. The estimates are calculated from the responses of small businesses to the survey. Businesses were asked to estimate both the number of days per year devoted to compliance and to estimate the costs of compliance. The time spent includes only both the owners' own time and that of employees. The monetary cost includes not just time within the firm but also fees paid outside the firm such as accountants.

**Table 1: Median compliance cost by firm size.**

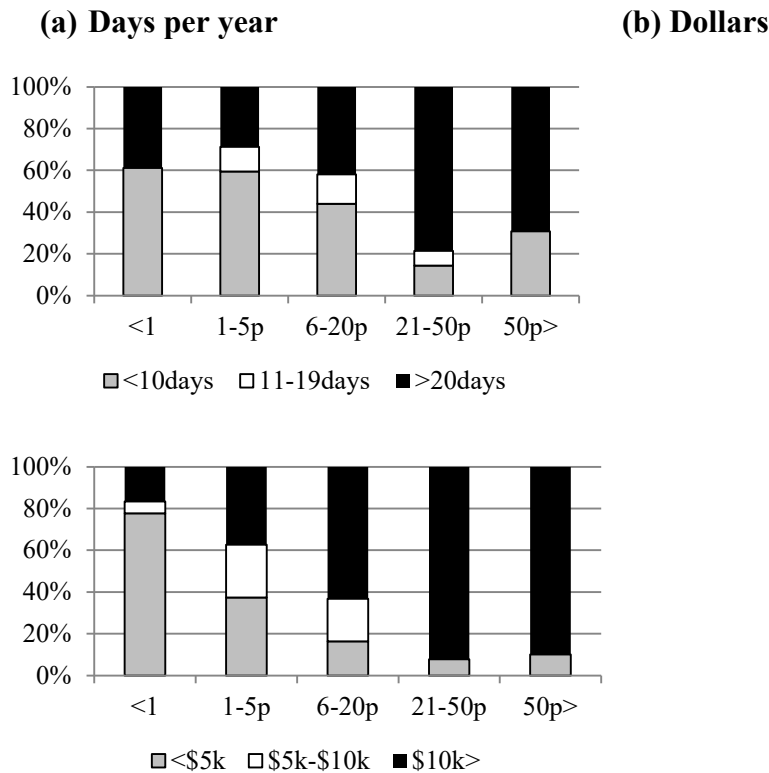
No. of employees	Compliance cost (days per year)	cost of compliance (\$ per year)	Implied cost per hour (\$)	Total sales (\$)	Cost as a percent of sales
None	5	3182	80	150000	2.1
1-5	8	7500	115	365000	2.1
6-20	14	15417	139	1523810	1.0

Source: DARRS (2010) Survey



Clearly compliance costs for businesses increase with firm size as does implied cost per hour. This may well reflect that the larger the firm the more complex is compliance and the need to buy in professional help. However, as the firm size increases, the relative burden of compliance, as measured by costs as a percentage of sales, falls.

**Figure 10: Cost of compliance by firm size**



Source: DARRS (2010) Survey

Using the ABS estimates of the number of small businesses in Australia allows us to extrapolate to the economy as a whole. For small businesses, those businesses with less than 20 employees, the cost to the economy of complying with government regulations, is estimated to be over \$10 billion.

**Businesses’ Own Views**

What do the businesses say themselves? Of the 391 firms surveyed, 226 businesses reported problems with compliance. Only seven firms reported specifically that they experienced no problems. Problems were initially categorised according to the categories suggested in the previous survey questions, namely ASIC regulation; record keeping for tax purpose; directors’ duties; information disclosure; OHS; superannuation; workplace relations; maternity leave; quality assurance; and environmental protection.

In order of most problematic (defined as the percentage of all businesses who responded “difficult” or “very difficult” to each of the issues listed), the issues and percentages encountering this issue are shown in Table 2.

**Table 2: Quotations from businesses experiencing difficulties, and the percentage finding this issue difficult**

Issue	Percentage finding issue difficult	Quotations
Record keeping for tax purposes	45	<p>“Taxation law and compliance - difficult to follow as I am not a professor of taxation law - and neither are the "helpful" folk who take calls for the Tax Office (they are all subject to changing their minds, that is not what I meant or I will have to seek someone else's advice)”</p> <p>“BAS - it's too complicated - not to complete, but to gather and reconcile all source data. “</p>
Occupational Health and Safety (OH&S) - general	40	<p>“Occupational Health and Safety - very hard to proactively determine level of satisfactory compliance ("paper trail" measurement with considerable cost/workload too often applied/relied on, &amp; retrospectively)”</p> <p>“OHS - Potentially serious legal consequences. To get "air tight" OHS policies and procedures, and train staff in these would cost tens of thousands of dollars, and take a long time!”</p>
OH&S - specific		<p>“Occupational health &amp; safety regulations that are not workable in small businesses in rural &amp; regional areas.”</p> <p>“WorkCover in South Australia which requires the employer to compensate for all lost wages from every employment source, e.g. where people have more than one job, work across many businesses, and the employer has to pay all lost wages for the injury. It is not worth employing someone who works elsewhere.”</p>
Workplace Relations	32	<p>“Workplace relations is out of control.”</p> <p>“Workplace Relations are more complex and ever changing.”</p> <p>“Being taken to task by past staff members when they were well looked after in this current difficult ... market”</p> <p>“Employees who think they are above the law”</p>
Superannuation	29	<p>“The mechanism is too complex and the rules / penalties are draconian, especially considering most of the problems / penalties happen due to circumstances beyond our control.”</p> <p>“Having employees nominate super fund. It creates a lot of extra time consuming paperwork.”</p> <p>“Super - we are a company of 13 employees with 5 different super funds - keeping all super funds satisfied because of varying 'payment dates' is ridiculous!”</p>
Quality Assurance	26	<p>“so many loopholes to fill. Seems like there is always an area that needs work, and constant updating”</p>

		“Too much useless government intervention in 'quality measurement'.”
Information disclosure	26	“Most significant problem is cost of technical and compliance advice in relation to volume of services.” “Compliance to company standards - costly if you want to change to be fully regulated by AASB”
Environmental Protection	24	“Carbon tax - this plus GST will make my goods more expensive and harder to sell” “Environmental compliance, but mainly in respect of my clients' operations and my role as a consultant providing advice to them.”
Directors duties	20	
Maternity leave	16	“Maternity Leave - I don't even know where to start.” “As a sole trader, I cannot afford maternity leave as it would be a double wage bill when I can barely make a single wage work.” “Maternity leave is yet another service that government is getting small business to do on their behalf.”
ASIC regulation	14	“Keep govt out of my business” “Too many regulations across a broad spectrum so that multiple advisors are required to run a business”

Source: DARRS (2010) Survey

While none of these percentages represent a majority of firms, they are significant proportions of businesses in the sample. The top two issues for firms are “record keeping for tax purposes” and “Occupational Health and Safety”.

Information disclosure was not really the term that respondents used, they complained more about compliance (which we take to be different to record keeping). Also it would be interesting to know what respondents thought of when they saw the term “information disclosure.” We assume they are treating it as information that has to be sent on to the ATO, ASIC or a similar government regulator, and record keeping is a more internal mechanism that could even be a precursor to information disclosure. We do not think that businesses are thinking here of disclosure such as reporting oil spillages.

Directors' duties did not attract any problems in the free text. The survey data shows that only 34 percent of non-missing respondents had a board of directors and the size of most responding firms (less than 20 employees) suggests that directors' duties are unlikely to be a major source of difficulty. This is despite the fact that Adams (2011) reports on the comparative ineffectiveness of the “business judgment rule” when ASIC pursues litigation.

**Table 3: Other themes**

Category	Quotation
Tax in general	<p>“The complexity of tax law”</p> <p>“Excessive and complex taxation”</p> <p>“Difficulty in meeting BAS funding and deadlines”</p>
Time management	<p>“Compliance with ... requirements often draws me away from the joy of training which is my passion”</p>
Change management	<p>“There appears to be change for change sake and no real benefits to business are apparent from changes.”</p>
Federal Government policy	<p>“down turn in economy”</p> <p>“High interest rates”</p> <p>“Internet competition - lack of tax on private imports”</p> <p>“\$A. For export becoming a killer”</p>

Source: DARRS (2010) Survey

Other themes expressed by businesses in the free text comments that were not specifically mentioned in the categories of difficulty are listed below. The record keeping item in the survey was too specific, so we captured a whole variety of tax-related problems such as the following. Chittenden et al. (2003) reporting on the Working Overtime Survey of 1996 also noted complexity of taxation and employment regulations.

### **What Does Business Suggest?**

179 businesses suggested solutions. Six stated that they could not think of any solutions required. From the solutions, we constructed our own categories based on the responses received. These categories are shown in Table 4, along with some representative quotes from businesses.

**Table 4: Suggested Solutions.**

Category	Quotation
Light-hearted	<p>“Don’t be a small business!!!”</p> <p>“Provide larger heads for the small operator of small business and not expect them to be more knowledgeable than the Commissioner for Taxation, the Director of Workplace relations, etc. all at the same time.”</p>
Simplification including common sense	<p>“Fewer rules! Fewer laws!”</p> <p>“Simplify the legislation”</p> <p>“Simplify!!!”</p> <p>“Don't keep making laws that punish most businesses just to deter the one or two bad eggs in an industry - they will do it any way.”</p> <p>“There should be levels of compliance depending on the size of the organization without putting larger organisations at a disadvantage, and without putting employees at risk. These levels should be based on total number of employees”</p> <p>“Common sense to be brought back in as to what is really necessary or bring in fierce penalties to all businesses that don’t met all regulations. The well ran shops are disadvantaged by having a much higher hourly rate than those shops that don't conform”</p>
Online solutions	<p>“Not so much remedies but provide free user friendly online options of compliance tools- that take you through wizards and print out a "what you should be doing- what you could be doing" reports”</p> <p>“Allow the use of online registrations and paying of annual fees and changing information. Make it easier to use and not so much done time and timing out.”</p>
Assistance	<p>“Further training offered at the expense of the regulators e.g. WorkCover, ATO”</p> <p>“more assistance less of a willingness to fine and punish”</p>
Communication	<p>“regular broadcasting in plain straight forward English”</p> <p>“consult more widely with business and industry groups</p>

	and have legislation and regulation written in plain English that the average small business operator can comprehend”
Payments to businesses	<p>“being paid to be a tax collector - GST, employee PAYG - the ATO expects us to work for them for free”</p> <p>“Govt to reimburse small business for the time spent on compliance at say \$100 per hour. This would stimulate an interest by government to reduce time of compliance and would make small business more interested in complying”</p>
Specific workplace relations solutions	<p>“Being able to sack an employee for being lazy and incompetent”</p> <p>“A Fair Work Australia for employers be set up.”</p>
Specific OHS solutions	<p>“Let the workers develop their own OH &amp; S policies and procedures in agreement with the executives not the other way around”</p> <p>“reverse onus of proof for workers compensation i.e. workers have to prove that they have actually been injured and if injured that their injuries occurred at work”</p>
Specific tax changes (generally reductions or exemptions)	<p>“Flat tax”</p> <p>“Increase GST to 15percent and drop all other taxes”</p> <p>“GST free for business under \$250,000”</p>
Consistency	<p>“Have one taxing body for the whole of the country and take away state taxes that are a disincentive for growth and investment.”</p> <p>“Simple consistent federal rules to replace the eight state systems”</p>
Federal government responses	<p>“call a new election”</p> <p>“bring in working for payments, compulsory military for youth unemployed, make everyone work to ease the burden off small business and govt can get taxes from everyone not just working - middle class. Change in govt would also help small business”</p>

Source: DARRS (2010) Survey

## Summary and Discussion

In summary there is a significant frustration among many businesses regarding government regulation. One consistent theme is responsibility. In general Government attempts to move the responsibility for items ranging from using the nominated super fund of every employee to funding maternity leave to collecting taxes from Government to business.

A second consistent theme is change. This can refer to change in a given regulation over time, or changes that arise from inconsistencies between states. Small businesses may not have the capacity to keep up with all the changes and inconsistencies. They may not recognise that such change has occurred. Whether or not they are complying with the latest version of regulation, businesses must comply and then be able to prove that they have complied.

From the written responses, generally speaking, the main concern are of the amount of paperwork involved in keeping compliant and the complexity of the regulations exacerbated by various states and jurisdictions with different rules. These factors, in turn, create other problems, frequently reported in the written section, such as the difficulty keeping compliant with government regulation including getting staff to comply with government regulation, maintaining deadlines and understanding the requirements of government regulation. This is not helped by poor quality or overabundance of information which needs to be sifted through to find relevant information; also frequently commented on. These factors lead to a common charge from business that government over regulates the business sector making compliance costs greater than they need be. Furthermore, there is a common theme regarding additional regulation needed to fulfil the function of government, such as collecting taxes and superannuation payments, without any remuneration for the additional drain on the firm's resources to provide such functions.

The attitudes of business regarding taxation compliance mostly focused on the amount of paperwork necessary and the difficulties associated in keeping compliant. The issue of paperwork had the greatest representation in taxation compliance. These factors appear to be the main factors explaining why businesses frequently suggested taxation compliance is costly and time consuming.

Interestingly industrial relations had the greatest frequency of businesses from the survey complaining about the costly nature of the regulation. Businesses in the survey suggested that there was significant inequality arising from the regulation in its current form. There is a perceived inequality in the form of greater rights for the employees over the employers. Furthermore, industrial relations is regarded as considerably over regulated.

Of the areas of regulation, occupational health and safety had by far the greatest frequency of businesses complaining about the difficulty they experience in keeping compliant. Especially in ensuring employees remain compliant with government regulation. This and the associated paperwork necessary to maintain compliant causing occupational health and safety were thought to be very costly.

The last area of government regulation frequently complained about in the survey, superannuation, picks up on an interesting and more common complaint from businesses regarding government regulation. Businesses feel they should be compensated for filling a role that is primarily the function of government. That is, businesses are responsible for collecting and making superannuation payments on behalf of employees. The complexity of this task made considerably harder by the fact that employees nominate their own superannuation fund.

Chittenden et al. (2003) note that the Better Regulation Task Force (BRTF) as having "simplified procedures for SMEs" as their final suggestion for reducing regulatory burden. When Chittenden et al. (2003) were writing, the full potential of the internet had not been realised (and probably still has not been!). They note that the BRTF suggested compliance mechanisms such as automated payroll services might help reduce the regulatory burden. Heenetigala and Armstrong (2010) have studied how accountants could assist small businesses to make better use of online solutions for communication with themselves. According to their findings, ICT would be beneficial to either small business, accountants, or both. Dai (2010) has also explored the potential of specific software to link small businesses with ICT solutions and increase productivity. Compensation (in the context of



administrative responsibilities being moved from the public to the private sector) or incentives (in the context of electronic filing of tax returns) as suggested by the BRTF (Chittenden et al. 2003) could also be a solution.

Banks (2006) mentions “risk aversion” as an increasing community attitude that may be leading to over-zealous regulation. Vickers et al. (2005) studied small business response to Occupational Health and Safety regulation in the UK. The solutions they were proposing were not directly drawn from respondents but grew from their analysis of the data: the most radical one was a proposal to increase inspections.

Our findings are in agreement with the view that a lack of coordination between government agencies as a frustration for a majority of small firms. This is likely to refer to federal agencies. Banks (2006) has also suggested consistency and harmonisation as key reforms worthy of attention. Clarke (2010) proposes some federal solutions, in particular the concept of a network of organisations that work together to ensure compliance. Such a network could include peak bodies such as COSBOA or other industry associations.

Our research has provided estimates of the compliance costs of regulation to small business which, although they may not be exact, do suggest these costs are significant and result in inefficiency for business and the economy. For small businesses the cost to the economy of complying with government regulations, is estimated to be over \$10 billion. The research has also identified key areas of concern for small business and some solutions to ameliorating the burden of regulation. In many ways the findings leave considerable scope for further research. It does, nevertheless, fill a gap in the Australian literature in this area.

## References

- Adams, M. (2011), Latest developments in officers’ duties of SMEs. *Journal of Business Systems, Governance and Ethics* 6(3), 31 – 42.
- Australian Bureau of Statistics (2007), Counts of Australian Business Operators, Cat No. 8175.0.
- Australian Bureau of Statistics (2012), Australian Industry, Cat No 8155.0.
- Australian Chamber of Commerce and Industry (2005) ACCI Submission to the Office of the Federal Privacy Commission, December, Canberra.
- Banks, G. (2006), Rethinking Regulation, Report of the Taskforce on Reducing Regulatory Burdens on Business, available at [www.regulationtaskforce.gov.au](http://www.regulationtaskforce.gov.au).
- Bell, C. (1996), Time for Business, Report to the Small Business Deregulation Task Force, Productivity Commission, Canberra.
- Chittenden, F., Kauser, S. and Poutziouris, P. (2002), Regulatory Burden of Small Business: A Literature Review, the University of Manchester, Manchester, UK.
- Chittenden, F., Kauser, S. and Poutziouris, P. (2003), Tax regulation and small business in the UK, Australia and New Zealand, *International Small Business Journal* 21, 93 – 115.
- Clarke, A. (2010), Small corporations: better controlling of the spigot of “red tape”, *Journal of Business Systems, Governance and Ethics* 4(4), 61 – 69.
- Dai, W. (2010), The impact of emerging technologies on small and medium enterprises (SMEs), *Journal of Business Systems, Governance and Ethics* 4(4), 53 – 60.
- Heenetigala, K. and Armstrong, A. (2010). The use of internet reporting for small business, *Journal of Business Systems, Governance and Ethics* 4(4), 41 – 52.
- Heenetigala, K., Armstrong, A. and Clarke, A. (2011), Corporate regulation and corporate governance of small businesses in Australia, *Journal of Business Systems, Governance and Ethics* 6(3), 43 – 52.
- Inland Revenue (1998), The Tax Compliance Costs for Employers of PAYE and National Insurance in 1995-96, The Centre for Fiscal Studies, University of Bath, Bath.
- Li, Y., Armstrong, A. and Clarke, A. (2012). Determinants of regulatory burdens on non-listed small corporations in Australia: perceptions of small corporations’ owner/managers. *Journal of Business Systems, Governance and Ethics* 7(1), 39 – 51.

- Pope, J., (1992) *The Compliance Costs of Taxation in Australia: An Economic and Policy Perspective*, Working Paper no 92.07, School of Economics and Finance, Curtin University of Technology, Perth.
- Pope, J., Fayle R. and Chen D.L. (1991), 'The Compliance Costs of Public Companies' Income Taxation in Australia 1986/87', Australia Tax Research Foundation, Sydney.
- Pope, J. Fayle R. and Chen D.L. (1989), *The Compliance Costs of Personal Income Tax in Australia*, Australian Tax Research Foundation
- Pope, J. Fayle R. and Chen D.L.(1992), *The Compliance Costs of Employment Related Taxation in Australia*, Australian Tax Research Foundation.
- Pope, J., Fayle R. and Duncanson M. (1990), *The Compliance Costs of Personal Income Taxation in Australia, 1986/87*, Australian Tax Research Foundation, Sydney.
- Productivity Commission (2007) *Performance Benchmarking of Australian Business Regulation*, Productivity Commission, Canberra.
- Vickers, I., James, P., Smallbone, D. and Baldock, R. (2005). Understanding small firm responses to regulation, *Policy Studies* 26(2), 149-169.
- Sandford, C. And Hasseldine, J. (1992) *The Compliance Costs of Business Taxes in New Zealand*, Institute of Policy Studies, Victoria University of Wellington, Wellington.
- Sandford, C., Godwin, M., and Hardwick, P. (1989) *Administrative and Compliance Costs of Taxation*, Fiscal Publications, Bath.
- Small Business Deregulation Task Force (1996), *Working Overtime: A National Survey of the Paperwork Burden on Small Business*, Background Paper 3, October, Small Business Deregulation Task Force, Canberra.



# The Relationship Between Corporate Governance and Financial Performance of Small Corporations in Australia

Yongqiang Li, Anona Armstrong and Andrew Clarke  
Victoria University, Australia

---

## ABSTRACT

*This paper examines a widely explored but yet to be confirmed relationship between two latent constructs - corporate governance and financial performance of small corporations in Australia. Prior studies have either focused on larger organisations or isolated corporate governance mechanisms in small firms. However, few have examined how corporate governance mechanisms, as a bundle, relate to small corporations. This study fills this gap by empirically analysing the aforementioned relationship using Structural Equation Modelling (SEM). Based on 387 responses from small corporations, the results show that corporate governance bundles measured by the extant literature, has a **negative** impact on the financial performance of small corporations. The result calls for a stakeholder approach to the governance needs of small corporations.*

## Keywords:

*Corporate governance, financial performance, small corporations, structural equation modelling (SEM)*

## INTRODUCTION

Small corporations are the backbone of the Australian economy. Various studies have explored corporate governance as it applies to larger organisations. Few studies, however, have examined how corporate governance relates to small corporations, who are losers in the “corporate governance reform competition”, given their resource constraints and failing to put these matters on their strategic agenda (Audretsch and Lehmann 2011).

## Definition of corporate governance

From the Stakeholder Theory perspective, Du Plessis, Bagaric et al. (2010) suggested that the ultimate

Copyright © 2014 Victoria University. This document has been published as part of the Journal of Business Systems, Governance and Ethics in both online and print formats. Educational and non-profit institutions are granted a non-exclusive licence to utilise this document in whole or in part for personal or classroom use without fee, provided that correct attribution and citation are made and this copyright statement is reproduced. Any other usage is prohibited without the express permission of the publisher.

goal for corporate governance should be toward the optimisation of efficiency and productivity, hence define corporate governance as:

*The system of regulating and overseeing corporate conduct and of balancing the interests of all internal stakeholders and other parties (external stakeholders, governments and local communities ...) who can be affected by the corporation's conduct,*

*in order to ensure responsible behaviour by corporations and to achieve the maximum level of efficiency and profitability for a corporation (Du Plessis, Bagaric et al. 2010, p. 10).*

## Definition of a small corporation

Small corporations are those with less than 50 shareholders and which meet at least two of the following criteria: they have consolidated revenue of less than \$25 million per year, gross assets of less than \$12.5 million, and fewer than 50 full-time employees. This definition derives from s 45A(2) Corporations Act 2001 (Cth) (Corporations Act 2001 (Cth) s 45 2001). Under this definition, ‘small corporations’ make up the vast majority of the Australian market – some 1.38 million companies – and are vitally important in economic, social and cultural contexts. They employ more than five million members of the Australian workforce (Armstrong, Li and Clarke et al. 2011).

There is a dearth of evidence on the relationship between corporate governance and financial performance of small corporations in Australia, mainly due to the lack of data and low interest in research involvement from the small corporations. Only in recent years have researchers in the field started to explore the governance issues facing small corporations in North America and Europe. Moreover, existing empirical studies have mainly focused on isolated governance mechanisms, while the treatment of corporate governance mechanisms as a bundle has been ignored (Clarke and Branson 2012).

Corporate governance theorists have made significant efforts toward explaining the performance implications of corporate governance in small corporations (Audretsch and Lehmann 2011). Little empirical work has been done, however, to simultaneously operationalise the corporate governance and financial performance constructs with the purpose of establishing the corporate governance mechanisms that fit small corporations in Australia. This research seeks to contribute to our understanding of the fit between these critical constructs. Hence the research question is:

**RQ: what is the relationship, if there is any, between corporate governance and financial performance of small corporations in Australia?**

The rest of the paper proceeds as follows, Section Two developed the hypotheses based on Agency Theory and Stakeholder Theory. Section Three outlined the details of the method. Section Four reports the results, followed by Discussion in Section Five. Section Six concludes.

## THEORY DEVELOPMENT AND HYPOTHESIS

### Relevance of corporate governance to small corporations

Corporate governance is an established and well-studied subject in Economics, Finance, Accounting, Management and Law (Audretsch and Lehmann 2011). Excellent surveys of the literature on corporate governance of large corporations can be found in Bebchuk and Weisbach (2010) and Brown, Beekes et al. (2011). These reviews support the contention that, up to now, corporate governance research has mainly been dedicated to and concerned with the traditional American corporations that have thousands of employees and are publicly traded on stock exchanges with the free float of shares and shareholders holding a small fraction of equities in the firm. In contrast, evidence on corporate governance is scarce in non-listed small corporations.

The literature shows extensive research on the efficiency of a corporate board as a central institution of internal governance in large corporations (Audretsch and Lehmann 2011). The focus of interest on small firms is still emerging (Arosa, et al. 2012). However, the literature also identifies differences and similarities in corporate governance for boards in both large and small firms (Machold et al. 2011).

Agency Theory argues that corporate governance mainly deals with three types of conflicts between:

(1) shareholders and managers; (2) controlling shareholders and minority shareholders; and (3) shareholders and non-shareholding stakeholders (Davies 2000). The governance problems of large corporations mainly arise from the separation of ownership and control in different contractual arrangements. However, unlike their large counterparts, ownership and control are normally concentrated in small firms (Uhlener et al. 2007). For example, the founding owner of a firm is also the manager. Therefore, the disparity between ownership and managerial self-interest may be relatively smaller in the small firms.

While Agency Theory may be relevant to small firms, the literature argues that the decision-making and control structure is less complex and less diffused in small firms. Thus, the monitoring role of boards is diminished (Arosa, et al. 2012). On the other hand, a firm's interests may change the board's role in small firms (Pugliese and Wenstøp 2007).

The content of board tasks may vary between small and large firms (Zahra and Pearce Li 1989). Consequently, boards may also assume other roles, including supervisory, advisory and networking. In addition, small business owners are more concerned with firm survival, growth rate, family welfare, succession plan, personal status and long-term financial returns. Furthermore, the impact of founding managers/ entrepreneurs on boards of small firms may be greater than that of their larger counterparts (Arthurs et al. 2009).

Small firms' demand for corporate governance has been constrained by their resource constraints. Small firms do not have the luxury of hiring in-house experts. Large corporations, however, benefit from corporate governance in the forms of value creation, cost minimisation and efficiency improvement, while small firms are disadvantaged (Clarke, 2006).

The number of shareholders in small firms is limited. Hence, the second type of conflict — the interest disparity between controlling shareholders and minority shareholders is not a main concern except for the existence of block-holdings. Thus, a main task for corporate governance in small firms is to address the third type of conflicts — the interest alignment between shareholders and shareholding stakeholders (McCahery and Vermeulen, 2010).

Contingency Theory argues that the proper design of corporate governance has to consider environmental factors, for example, institutional environment and ownership characteristics (Huse, 2005). Though existing research and practice is highly concentrated on the corporate governance of listed companies, external stakeholders (such as customers, lenders, insurance companies and equity investors) increasingly require non-listed companies to adopt the corporate governance rules and principles of listed companies (McCahery and Vermeulen, 2010). Thus, there is a growing practical need for corporate governance tailored to small firms.

In contrast to the modern corporations with the large economy of scale and scope researched by Berle and Means (1932) or Chandler (1977), some researchers have predicted that small corporations are the future of all economies (Audretsch and Lehmann 2012). As Rajan and Zingales (2000) point out, small corporations are the backbone of any economy, the driving force in employment generation, the major contributor of exports, and the main innovators in research and development. Summarised below are the relevant theories on corporate governance, namely Agency Theory, Stakeholder Theory and Resource-dependency Theory.

## **Agency Theory**

Agency theory is highly relevant to understanding corporate governance. Ross (1973) first formulated the Agency Theory Paradigm in the 1970s, identifying the principal problem. The term was first associated with agency costs by Jensen and Meckling in 1976 (Ross 1973; Jensen and Meckling 1976; Shapiro 2005). Rooted in Information Economics (Turnbull 1997), Agency Theory complements the risk sharing literature by including the agency problem that occurs when goals of cooperating parties differ (Ross 1973; Jensen and Meckling 1976). Using contracts as a metaphor, Agency Theory attempts to resolve two problems that may occur when one party (the principal) delegates work to

another (agent). The first is the conflict of goals between the principal and agent and the costs associated with the minimisation of such discrepancy; the second is the problem of sharing risk when the risk preference of the principal and agent differs (Eisenhardt 1989).

The key idea of Agency Theory is that, as a solution to the “principal-agent” problem, contracts between principals and agents should reflect efficient organisation of information and risk-bearing costs. Agency Theory rests on a number of assumptions, including human assumptions of self-interest, bounded rationality and risk aversion; organisational assumptions on partial goal conflict among participants, efficiency as the effectiveness criterion and information asymmetry between principal and agent; and information assumptions on information as a valuable commodity. The information asymmetry problem embedded in the principal-agency relationship may result in moral hazard and adverse selection and precludes cooperative parties from the benefits of sharing risks. Consequently, the ex-ante contracts between the principal and agent are incomplete. Agency Theory may be applied to any contractual relationships in which the principal and agent have partly differing goals and risk preferences, for example, compensation, regulation, leadership, impression management, whistle-blowing, vertical integration, merge & acquisition, and transfer pricing (Eisenhardt 1989).

Agency Theory serves as the underlying rationale for corporate law as well as principles and regulations of corporate governance. These address three sets of principal-agency conflicts: (1) the shareholders and the management; (2) majority shareholders and minority shareholders; and (3) the controller of the company and non-shareholding stakeholders (Davies 2000).

For small firms, particularly for micro- businesses and family businesses, ownership and control are concentrated in the owner/manager’s hands. Thus, corporate governance should address the latter two conflicts (Li 2014). The board’s role of monitoring may not be as strong as it is expected in large companies, rather the board of directors should be used for resource purposes. Moreover, the board should be expected to protect minority shareholders and non-shareholding stakeholders (Corbetta and Salvato 2004).

## **Stakeholder Theory**

Freeman (1984) identifies and models the groups who are stakeholders of a corporation. He also both describes and recommends methods by which management can give due regard to the interests of these groups. Freeman’s initial objective was to develop a pragmatic approach to strategy which urges organizations to recognise the significance of stakeholders to achieve superior performance. Freeman drew on various pieces of literature to develop Stakeholder Theory including strategic management, corporate planning, systems theory and corporate social responsibility (Laplume, Sonpar et al. 2008). In short, it attempts to address whose stake counts in business decisions.

The theoretical foundation of the Stakeholder Theory is private ownership (Donaldson and Preston 1995). Freeman (2010) challenged the long-standing assumption in economics and management literature of the past two centuries that the objective of firms is to maximize shareholders’ wealth. Rather, Freeman suggested that the firm’s objective is to optimize stakeholders’ wellbeing in order to create strategic advantage (Laplume, Sonpar et al. 2008). In Stakeholder Theory, a firm is assumed to be a business opportunity (Freeman, Harrison et al. 2010), which is fundamentally different from Friedman’s treatment of business as markets and maximizing tools (Friedman 1970), Jensen and Meckling’s move toward business as an agency (Jensen and Meckling 1976), Porter’s perspective of business as a competitive strategy (Porter 1979), and Williamson’s treatment of business as a nexus of transaction costs (1981).

### **Propositions of Stakeholder Theory**

Freeman’s Stakeholder Theory intends to address three problems: (1) the problem of value creation and trade; (2) the problem of the ethics of capitalism; and (3) the problem of a managerial mindset

(Freeman et al. 2010). Freeman et al. (2010) holds that: (1) the basic objective of a firm is to create value for stakeholders; (2) business is a set of relationships among groups which have a stake in the business activities; (3) business is about how customers, suppliers, employees, financiers (such as stockholders, bondholders, banks, or investors), communities, and managers interact and create value. To understand a business is to know how these relationships work. In this context, the executive's or entrepreneur's job is to manage and shape these relationships. Hence, stakeholders are defined as customers, suppliers, employees, investors, communities, and managers who interact and create value for firms (Freeman, Harrison et al. 2010).

Stakeholder theory stresses the dependency of the firm on many different groups. It strongly suggests that corporations are influenced by loosely defined groups of people, each seeking something different from the organization. This theory identifies who benefits from a firm, as well as locates who, in fact, controls its corporate policy. The stakeholder view of strategy is an instrumental theory of the corporation, integrating both the resource-based view as well as the market-based view, and adding a socio-political level. This view of the firm is used to define the specific stakeholders of a corporation (the normative theory of stakeholder identification (Donaldson and Preston, 1995)) as well as examine the conditions under which these parties should be treated as stakeholders. The normative aspect and the descriptive aspect combined forms the modern treatment of Stakeholder Theory.

Donaldson and Preston (1995) argue that the normative base of the theory, including the "identification of moral or philosophical guidelines for the operation and management of the corporation", is the core of the theory. Mitchell et al. (2012) derive a typology of stakeholders based on the attributes of power (the extent a party has means to impose its will in a relationship), legitimacy (socially accepted and expected structures or behaviors), and urgency (time sensitivity or criticality of the stakeholder's claims). By examining the combination of these attributes in a binary manner, eight types of stakeholders are identified and described along with their implications for the organization. Friedman and Miles (2002) explore the implications of contentious relationships between stakeholders and organizations by introducing compatible/incompatible interests and necessary/contingent connections as additional attributes with which to examine the substance of these relationships.

### **The Resource-dependency Theory**

Jeff Pfeffer's 1972 dissertation and prolific proceeding publications marked the birth of resource dependence theory. In 1978 Pfeffer and Salancik published *The External Control of Organization*, which pinpointed the "power-dependence relations" and led to the popularity of the resource dependent theory.

### **Assumptions of Resource Dependence Theory**

The Resource Dependence Theory assumes that a firm's power over its external environment is critical to earning a competitive advantage for a firm. The external environment such as suppliers, customers and board of directors, are contingencies of the organisation's power. By applying multiple strategies, the firm is able to combat the contingencies and minimise uncertainty and interdependence on the environment (Hillman et al. 2009).

### **Propositions of Resource Dependence Theory**

The Resource Dependence Theory has three major ideas: (1) external environment matters. The social context in which a business operates may have direct impact on resource allocation; (2) organisations should develop strategies to enhance their autonomy of acquiring and allocating resources with a view to improving the organisation performance. The process of seeking autonomy reduces the organisations' dependency on resources; and (3) market power is important for understanding internal and external actions of the organisation (Pfeffer



1972). In particular, the emphasis on market power distinguishes resource dependence theory with other competing theories in explaining the firm's behaviour.

The resource dependence theory considers internal and external resources as major contingencies for organisational performance. The underlying assumption is that, though resource allocation can be planned there are uncertainties in the availability and cost of obtaining the resource related information. Hence, resources are critical to organisations. Resources may come from environments internal or external to the organisations. Internal resources may include input such as capital, labour and technology, management knowledge, production and marketing capabilities, board of directors, employees' morale and satisfaction, the owners' family networks and managers' networks; external resources may include customers, investors, suppliers, competitors, regulators, community, and environment. The resources one organization needs are thus often in the hands of other organizations (Williams and McWilliams 2014). Such resources serve as a basis for market power, which enables one organisation to be dependent on each other, even though they are legally independent. Pfeffer (1972) also contends that the market power of an organisation and its dependence on resources are intertwined. Such powers are constrained by environmental contingencies and are potentially mutual to the two organisations which have the relationship.

Hillman et al. (2000) further argued that though resource constraints of an organisation may come from numerous sources such as labour, capital, raw material, board of directors, personal networks, and entrepreneurship, each resource does not have an equal weight on organisational performance. In addition, given that organisations face limited resources and tight budgets for accessing resource related information, they may not be able to use each resource contingent fairly. However, they must have the critical resources required to add value to an organization's core business in order to function. Thus organisations should identify critical resources and attend to them in order to achieve optimal performance.

The Resource Dependence Theory complements Agency Theory by arguing that the board of directors can be used as a mechanism to curb managerial self-servicing behaviour, but also, in the meantime serve as valuable resource for the organisation. Directors are selected based on a range of technical, interpersonal and conceptual skills, their motivation to manage, and their strong connections with the market, in particular, with the resources external to the organisation such as customers, suppliers and financiers. Hence, the board of directors may serve as a nexus between the internal environment and external environment, which may further synergize internal and external resources. Furthermore, having more external directors sitting on the board may benefit the organisation in more ways than one. Though they may have less impact on key business decision making, their view as an independent voice, their role as an extra source to understand the customer's needs, and their capability of offering a balanced understanding of the potential social and economic impact of a business decision will add significant value to the organisations performance (Hillman and Dalziel 2003).

Based on the aforementioned three theories, the corporate governance of small corporations, as a latent variable, can be measured by board size, board independence, board meeting frequency, directors' use of their network, board interest alignment, succession planning and independent auditing (Li 2014).

## The relationship between corporate governance and financial performance of small corporations in Australia

Agency Theorists argued for a positive relationship between corporate governance and financial performance in organisations, while the Stakeholder Theorists proposed that performance may depend on managing different stakeholder interests. Resource Dependency theorists suggest that directors and their governance functions are among the resources of a firm.

The empirical literature on corporate governance is vast and are reviewed extensively by Shleifer and Vishny (1997), Zingales (1998), Tirole (2001), Denis (2001), Gillan (2006), Bebchuk and Weisbach (2010), Brown, Beekes, and Verhoeven (2010), Hermalin (2012) and Agrawal and Knoeber (2013). It is surprising that in the large body of literature reviewed in the abovementioned articles, corporate governance mechanisms were mainly treated as isolated mechanisms and small corporations were mainly overlooked.

Acknowledging that different corporate governance mechanisms may complement or substitute each other, the recent decade witnessed an increased interest by researchers to treat corporate governance mechanisms as a ‘bundle’ (Clarke and Branson 2012). This study responds to the call by treating corporate governance as a latent variable or a ‘bundle’.

Given the predominance of the Agency Theory in corporate governance research, the null hypothesis of this study is that

*H0: There is a positive relationship between corporate governance and financial performance of small corporations in Australia (Fig. 1).*

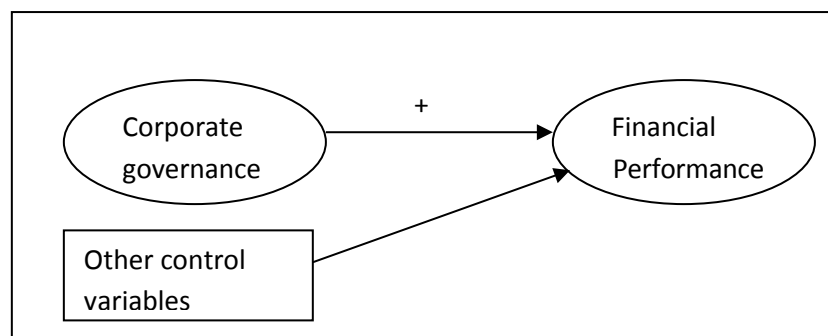


Figure 1 Conceptual framework on corporate governance and financial performance of small corporations

## METHOD

### Data collection

An online survey using Survey Monkey, supported by small business associations that included COSBOA's (Coalition of Small Business Organisations of Australia) twenty six organisations resulted in a sample of 312 respondents.

### Measures

#### *Measures for corporate governance*

Prior literature identifies eight main types of corporate governance mechanisms pertinent to small corporations, namely, board size, board independence, board interest alignment, meeting frequency, ownership structure, directors' network, succession planning, independent auditing (Gillan 2006).

*Measures for financial performance*

Financial performance is measured by the accounting indicators of the firms, including return on assets (ROA), return on equity (ROE), return on investment (ROI), Tobin’s Q, share price, operating cash flow, market-to-book ratio and R&D spending (Orlitzky et al. 2003; van Essen et al. 2012).

**Small Business Corporate Governance Questionnaire**

Based on the measures of corporate governance and financial performance outlined above, the authors designed the Small Business Corporate Governance Questionnaire. The questionnaire captures data on corporate governance, including board of directors, board size, number of independent directors sitting on the board, sources of board of directors, number of board meetings hold each year, percentage of shares owned by the top five owners, extent to which directors use their personal and professional network for business development, succession planning and whether the small corporation is audited by independent auditors; and financial performance, including total assets, total sales, net profit and sales growth.

**Analytic techniques**

Structural equation modelling (SEM) was applied to empirically test the statistical hypothesis. The SEM is recognised in the field as an appropriate analytical approach for confirmative causal relationship analysis. Moreover, SEM can be viewed as an ‘umbrella’ tool encompassing a set of multivariate statistical approaches including conventional and recent development approaches. It is a widely used approach in social sciences because of its capacity to deal with latent variables.

**RESEARCH RESULTS**

**Measurement model of corporate governance**

Corporate governance was measured by seven indicators, namely board size, duality (the CEO is also chair of the board), board independence, interest alignment, meeting frequency, board network and independent audit (Fig. 2). The fit statistics indicate a satisfactory fit of the model specified in Fig. 2.

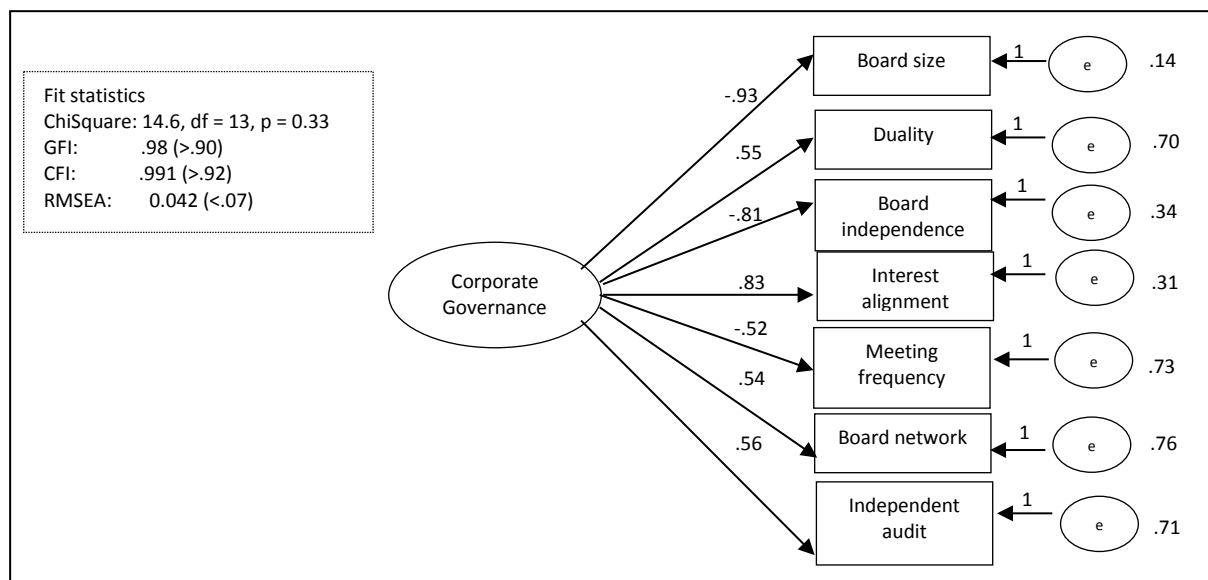


Figure 2: Measurement model of corporate governance

Corporate governance is an unobserved construct and is thus enclosed by ovals. Seven measures (enclosed by rectangles) were specified, each with a nonzero loading on the factor was designed to measure, and zero loading on other factors. Thus each indicator was identified with a unique construct. Error variables (enclosed by ovals because they are not directly observed) represent a composite of any influences on the observed measures that are not measured in this study.

#### Goodness of fit index

There is 13 degree of freedom (the construct variance is not shown for visual clarity). Thus normed chi-square = 0.33, GFI = 0.980, CFI = 0.991 all suggested the model is plausible. The RMSEA index is acceptably low at 0.042. As described in Chapter 6, a confidence interval provides a test of close fit (C.I. straddles 0.05), and not-close fit (entire C.I. lies above 0.05). Thus, for the financial performance measurement model, a hypothesis of close fit < 0.05 was accepted, and not-close fit < 0.05 was rejected. There was thus evidence to suggest that the financial performance measurement model had adequate overall goodness-of-fit.

#### Construct validity

The CFA provided a test of convergent validity for each of the sets of items that measured each construct. All path estimates were significant at the 1% level, and loadings between measured variables and factors were generally greater than 0.5. Indicators loaded significantly on their hypothesized construct, indicating adequate levels of convergent validity (Barki and Hartwick 2001).

#### Nested models to test dimensionality

The plausibility of one dimension of corporate governance for small corporations (as opposed to, for example, a multiple dimension model) was assessed in a nested modelling process. A further test of the measurement model was made by comparing two nested models (Barki and Hartwick, 2003). The results showed that the corporate governance of small corporations is a uni-dimensional construct that can be measured by sever indicators, namely board size, duality (the CEO is also chair of the board), board independence, interest alignment, meeting frequency, board network and independent audit.

### Measurement model for financial performance

Confirmatory factor analysis was performed where four measures of financial performance, namely total assets (assets), total sales (sales), net profit, and net profit growth derived from the abovementioned literature were allowed to correlate freely with each other but were uncorrelated with measurement errors from other indicators (Byrne 2010). The path diagram together with standardised parameter estimates is shown in Figure 3.

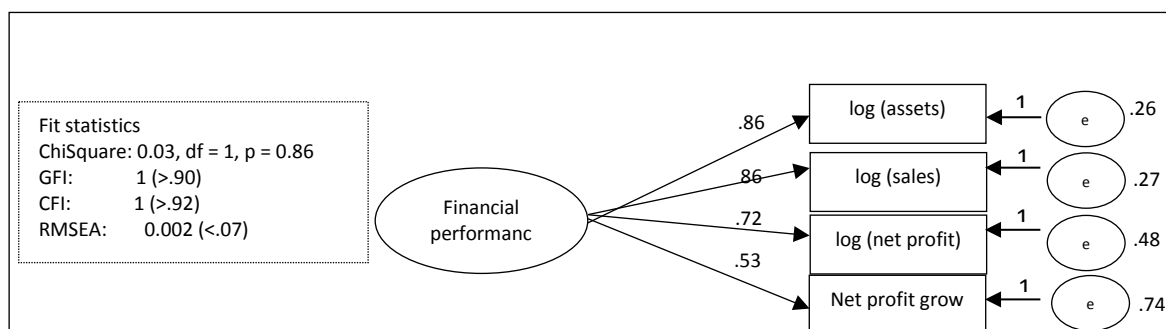


Figure 3: Measurement Model of Financial Performance

The measurement model (Figure 3) hypothesized that four hypothesized financial performance dimensions of namely total assets (assets), total sales (sales), net profit, and net profit growth were correlated. Included in the model was a factor measuring overall financial performance as perceived by the respondent. This is an unobserved construct and is thus enclosed by ovals. Goodness of fit scores and the unit dimensionality tests were applied in the same way as they were to corporate governance and the results passed the tests.

## **Hypothesis testing**

The measurement models for financial performance and corporate governance were specified in Fig. 3 and Fig. 2. The Structural Equation Model (SEM) was applied to assess the impact of corporate governance on small corporations' financial performance. The standardised SEM results indicate that corporate governance has a negative impact on the financial performance of small corporations. The standardised regression (which is also correlation) between the two latent variables — corporate governance and financial performance is - 0.40 which is negative and statistically significant, meaning that firms with better corporate governance structure in place tends to perform worse in financial terms (Fig. 4). The fit indices indicate that the model is satisfactory in meeting the fit criteria for a SEM.

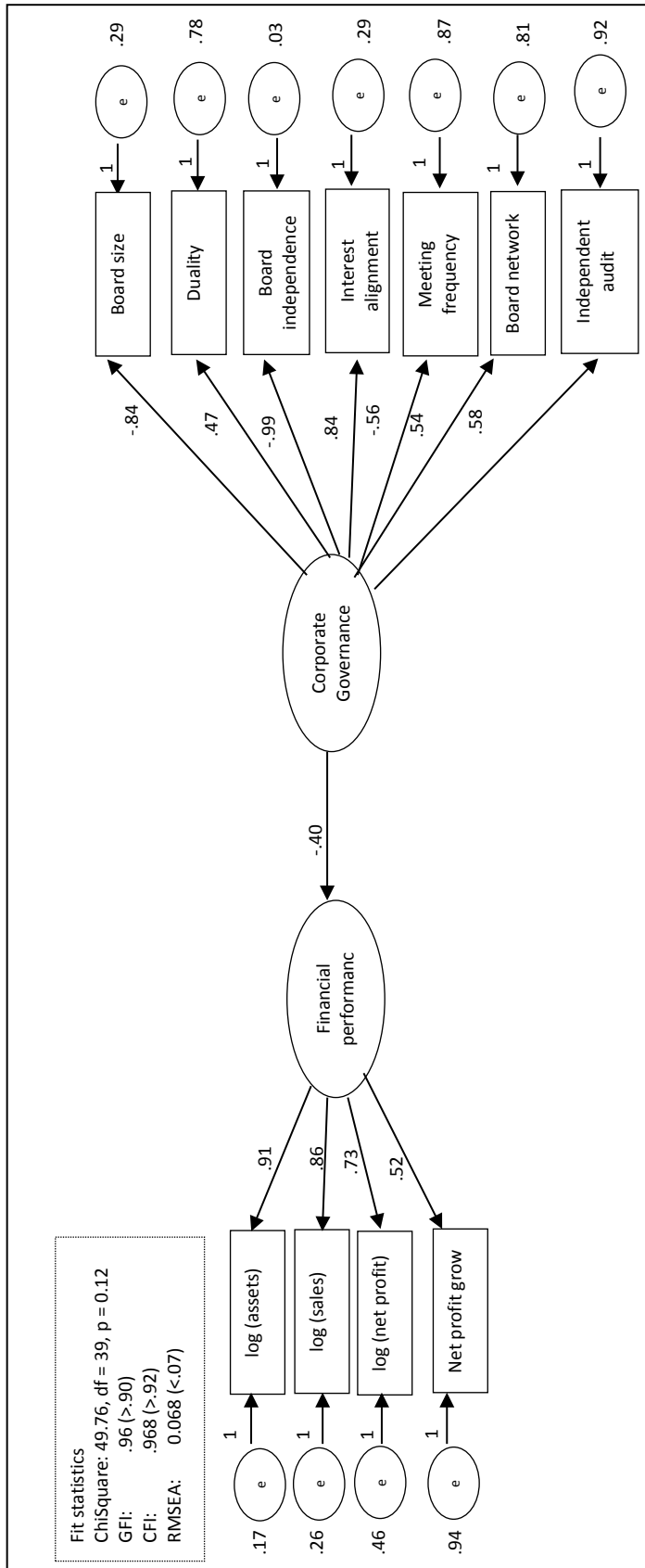


Figure 4: Corporate governance on financial performance

## DISCUSSION

Empirical results from the SEM model in the result section found a negative impact of corporate governance on the financial performance of small corporations, which challenges the well-established theories on corporate governance in the large corporations' literature. The effect size is 0.4, indicating a medium effect.

According to the Cadbury Report (1990) and the Organisation of Economic Co-operation and Development (OECD, 2004), corporations with sound governance systems yield good financial performance. The result from this study seems to contradict those in the well-cited literature of large corporations.

However, considering the disparities between small corporations and their larger counterparts, this result does not conflict with the existing literature, but complements them in four ways:

- i. Though the literature is flooded with literature investigating the impact of a separate corporate governance mechanism on firm performance (Bhagat and Bolton 2008; Dalton et al. 1998; Zahra and Pearce 1989), treatment of corporate governance mechanisms as a bundle is fairly recent and is 'limited' (Hoskisson et al. 2009; Ward et al. 2009).

Ward et al. (2009) points out that governance mechanism may serve as either complements or substitutes to one another. Hence, the estimation of the overall effect requires the corporate governance mechanism to be treated as a bundle (Mock 2007). Moreover, there is still a dearth of research into corporate governance bundles in small corporations. The SEM is recognised as the one of the most common techniques to empirically analyse the corporate governance mechanism as a bundle – a latent construct which can be measured by its indicators (Bowen and Guo 2011).

This research project provides new evidence that the corporate governance bundle, measured by variables populated in the large corporations' literature, impedes the financial performance of small corporations. Why is this so? Admittedly, the literature has yet to provide evidence-based solutions for corporate governance in small corporations, with this study being the first to look into such issues. In addition, there may be three reasons, to be discussed below, the first reason is that the existing theory fails to consider the differences between large corporations and small corporations; the second reason is that small corporations are yet to incorporate governance practice in order to improve their financial performance, provided that the regulatory bodies are able to develop small corporations-tailored corporate governance guidelines; and, the third reason is that the same corporate governance, for instance, the board of directors, may play different roles in small corporations than their larger counterparts.

- ii. The research finding of this project adds to the Agency Theory premise that multiple facets of the interest conflicts in the small corporations should be considered. Agency Theory has been used predominantly in justifying the existence of agency costs in large corporations between the owner and managers and in identifying ways to reduce it. Quite oppositely, small corporations do not have dispersed ownership structures and, consequently, the interest conflict between owner and managers is not the only major issue (Li et al. 2013). The main interest conflicts are between the shareholders and the other stakeholders, between dominating owners and the other owner/managers, as well as between family owners and other types of owners. In this regard, the Stakeholder Theory may be more sensible to justify the importance of corporate governance issues in small corporations (Wright et al. 2013).
- iii. Small corporations passively react to corporate governance related regulations. In the responses to the open-ended questions, small corporations' owner/managers point out that the ASIC regulation, in particular on director's duties and registration requirements are burdens to them, but with which they have to comply. Evidently, more discussion has yet to happen between the small corporations and ASIC in order to design small corporations-suited corporate governance practices in a view to improving their financial performance rather than compliance.

- iv. The results of this study call for an extended view about the role of the board of directors in a firm. A board's role in Agency Theory, Stakeholder Theory and Network Theory has been classified mainly as control and monitoring (Ingley and Karoui 2012). Boards in small corporations offer more than the controlling role, but also resource roles (Armstrong et al. 2012). Boards of directors also provide knowledge, skills, resource and social connections, which are all valuable assets to the financial performance of small corporations.

## STUDY LIMITATIONS AND FUTURE RESEARCH

This study is subjected to the self-selection bias due to its use of the convenient online survey approach. Though the fact that the survey response rate is almost proportional to the distribution of small corporations by state, it may face the risk of violation of internal validity caused by failing to adopt a random sampling approach. Admittedly, a self-selection bias is always a challenge for any non-experimental types of research. A discussion of the specific consequences of self-selection bias can be found in Bethlehem and Biffignandi (2011). This study, however, made the effort to correct the self-selection bias by applying sampling weights matching the number of small and medium sized businesses in respective local government areas.

Future work could focus on complementing this study by adopting a more rigorous sampling approach, coupled with a finer level of quasi-experiment design, and may be used to collect more reliable information to represent the population. In addition, future research may also investigate the factors which mediates and moderates the relationship between corporate governance and financial performance in small corporations in depth.

## ACKNOWLEDGEMENT

The authors would like to thank the support of an ARC Linkage Grant jointly funded by the ARC, Federal Department of Treasury and Council of Small Business of Australia (COSBOA) titled 'Developing a Responsive Regulatory System for Small Corporations in Australia'. The authors would like to extend their appreciation to the other members of the ARC Linkage team for their kind support. The errors incurred in the paper solely belong to the Authors.

## REFERENCES

- Adams, R. B., & Ferreira, D. (2007). A theory of friendly boards. *The Journal of Finance*, 62(1), 217-250.
- Agrawal, A. and C.R. Knoeber (2013), "Corporate governance and firm performance", in C.R. Thomas and William Shughart II, editors, *Oxford Handbook of Managerial Economics*, Oxford University Press, New York.
- Armstrong, A., Y., Li, A., Clarke, et al. (2011) *Developing a Responsive Regulatory System for Australia's Small Corporations*. Governance Program, Victoria Law School, Melbourne, Australia, ISBN: 978-1-86272-692-5.
- Armstrong, Li and Clarke et al. (2012). Victoria University (VU) Small Corporations Regulation Survey 2012. Unpublished. Weblink: <http://www.surveymonkey.com/s/GJTNGDR>.
- Audretsch, D. B., & Lehmann, E. (Eds.). (2011). *Corporate Governance in Small and Medium-Sized firms*. Edward Elgar.
- Ayotte K. M., E.S. Hotchkiss & K. S. Thorburn (2012) *Governance in Financial Distress and Bankruptcy*. The Oxford Handbook of Corporate Governance, 421.
- Barki, H., & Hartwick, J. (2001). Interpersonal conflict and its management in information system development. *Mis Quarterly*, 195-228. Barki and Hartwick, 2003
- Bebchuk, L.A. and M.S. Weisbach (2010), "The state of corporate governance research", *Review of Financial Studies*, 23, 939-961.
- Bertoni, F. A. B. I. O., Colombo, M. G., & Croce, A. N. N. A. L. I. S. A. (2013). Corporate governance in high-tech firms. *The Oxford handbook of corporate governance*, 365.



- Bethlehem, J., & Biffignandi, S. (2011). Handbook of web surveys (Vol. 567). John Wiley & Sons.
- Bhagat, S. and B. Bolton (2008). "Corporate governance and firm performance." *Journal of Corporate Finance* 14(3): 257-273.
- Bowen, N. K., & Guo, S. (2011). Structural equation modeling. Oxford University Press.
- Brown, Ph., W. Beekes, and P. Verhoeven (2010), "Corporate governance, accounting and finance: A review", *Accounting & Finance*, 51, 96–172.
- Byrne, B M (2010) *Structural Equation Modelling with AMOS: basic concepts, applications and programming*, 2nd edition, Lawrence Erlbaum Associates, London.
- Cadbury Report (1990)
- Clarke, T., & Branson, D. M. (Eds.). (2012). *The SAGE handbook of corporate governance*. SAGE Publications.
- Dalton, D. R., C. M. Daily, et al. (1998). "Meta-analytic reviews of board composition, leadership structure, and financial performance." *Strategic Management Journal* 19(3): 269-290.
- Du Plessis, J. J., M. Bagaric, et al. (2010). *Principles of contemporary corporate governance*, Cambridge Univ Pr.
- Filatotchev, I., & Allcock, D. (2012). *Corporate Governance in IPOS*. The Oxford Handbook of Corporate Governance, 421.
- Freeman, R. E., J. S. Harrison, et al. (2010). *Stakeholder theory: The state of the art*, Cambridge Univ Pr.
- Gillan, S.L. (2006), "Recent developments in corporate governance: An overview", *Journal of Corporate Finance*, 12, 381–402.
- Gillan, S.L. (2006). "Recent developments in corporate governance: An overview", *Journal of Corporate Finance*, 12, 381–402.
- Hermalin, B. (2012), "Corporate governance: a critical appraisal", in R. Gibbons and J. Roberts, editors, *Handbook of Organizational Economics*, Princeton University Press,
- Hoskisson, R. E., M. W. Castleton, et al. (2009). "Complementarity in Monitoring and Bonding: More Intense Monitoring Leads to Higher Executive Compensation." *Academy of Management Perspectives* 23(2): 57-74.
- Jensen, M. C. and W. H. Meckling (1976). "Theory of the firm: Managerial behavior, agency costs and ownership structure." *Journal of Financial Economics* 3(4): 305-360.
- Karoui, L., Ingley, C., & Khlif, W. (2012). Enhancing the Board's Monitoring Performance in SMEs. *Board Directors and Corporate Social Responsibility*, 60.
- Li, Y., W., Dai, A., Armstrong, A., Clarke and M., Du (in press) (2013). Developing an Integrated Supply Chain Solution to Small Businesses in Australia. *International Journal of High Performance Computing and Networking*.
- MOCK, T. J., STROHM, C., & SWARTZ, K. M. (2007). An examination of worldwide assured sustainability reporting. *Australian Accounting Review*, 17(41), 67-77.
- OECD (2004). *OECD Principles of Corporate Governance*.
- OECD (2012) *Corporate Governance, Value Creation and Growth*. Accessed on February 2nd 2013 via <http://www.oecd.org/corporate/ca/corporategovernanceprinciples/50242938.pdf>.
- Orlitzky, M, Schmidt, FL and Rynes, SL (2003). "Corporate social and financial performance: A meta-analysis", *Organization Studies*, vol. 24, no. 3, pp. 403-41.
- Perry, M. (2012). *Small firms and network economies*. Routledge.
- Shleifer, A., & Vishny, R. W. (1997). A survey of corporate governance. *The journal of finance*, 52(2), 737-783.
- Zingales (1998),
- Street, C. T., & Cameron, A. F. (2007). External relationships and the small business: A review of small business alliance and network research. *Journal of Small Business Management*, 45(2), 239-266.
- Tirole, J. (2001), "Corporate governance", *Econometrica*, 69, 1–35.
- Denis (2001),
- Toms, S., & Wilson, J. F. (2012). 22 Revisiting Chandler on the theory of the firm. *Handbook on the Economics and Theory of the Firm*, 297.
- Uhlener, L. M., F. W. Kellermanns, et al. (2012). "The entrepreneuring family: a new paradigm for family business research." *Small Business Economics* 38(1): 1-11.
- van Essen, M., J. Oosterhout, et al. (2012). "Corporate boards and the performance of Asian firms: A meta-analysis." *Asia Pacific Journal of Management*.

- Ward, A. J., Brown, J. A., & Rodriguez, D. (2009). Governance bundles, firm performance, and the substitutability and complementarity of governance mechanisms. *Corporate Governance: An International Review*, 17(5), 646-660.
- Wright, M., Siegel, D. S., Keasey, K., & Filatotchev, I. (Eds.). (2013). *The Oxford handbook of corporate governance*. Oxford University Press.
- Wu, D. W. & L. Tihanyi (2012) Corporate Governance in IPOS. *The Oxford Handbook of Corporate Governance*, 421.
- Yiu, D.W., X. Chen & Y., Xu (2012) Corporate Governance in Business Groups. *The Oxford Handbook of Corporate Governance*, 421.
- Zahra, S. A. and J. A. Pearce Ii (1989). "Boards of Directors and Corporate Financial Performance: A Review and Integrative Model." *Journal of Management* 15(2): 291-334.



# Determinants of FDI: Does Democracy Matter?

Hasan Farazmand and Mahvash Moradi  
Chamran University, Iran

---

## Abstract

*Having access to foreign investments allows a country to take advantage of opportunities to which they would otherwise not have access. Many factors interfere with the ability to attract investments in developing countries, but there is lack of consensus on which factors play an unambiguous role. Using different econometric techniques for a data sample of 5 developing countries and the period 1990 to 2012, this study identifies those factors that most explain the determinants of foreign direct investment. Based on results, democracy can positively affect investors' decisions about where to locate capital. The findings also show that foreign direct investment as a share of GDP, is significantly associated with low corruption, inflation, high openness, literacy rate and infrastructure.*

## Keywords

*Foreign Direct Investment, Democracy, Panel Data*

## Introduction

The past decades has witnessed a substantial increase in the stock of Foreign Direct Investment (FDI) around the world. In developing countries alone, the stock of FDI increased from about \$10 billion in 1986 to over \$99 billion in 1995 (UNCTAD, 1997). However, some of this investment goes to developing democratic countries and some to developing autocratic countries. This phenomenon raises the question among scholars and policymakers: "Does democracy facilitate foreign direct investment?"

To answer this question two perspectives exist about how democracy affects FDI. On the one hand, democratic institutions may have a positive effect on FDI because democracy provides checks and balances on elected officials, and this in turn reduces arbitrary government intervention, lowers the risk of policy reversal and strengthens property right protection (North and Weingast 1989, Li 2009). Olson (1993) stated that established democracies, through executive constraint and judicial independence, guarantee property rights that create a safe, stable and attractive environment for foreign investors to invest. According to Olson, democracy is more attractive to FDI than autocracy. On the other hand, multinational corporations may prefer to invest in autocratic countries because of three reasons. First, democratic constraints over elected politicians tend to weaken the oligopolistic or monopolistic positions. Second, these constraints further prevent host governments from offering generous financial and fiscal incentives to foreign investors. Third, broad access to elected officials and wide political participation offer institutionalized avenues through which indigenous businesses

Copyright © 2014 Victoria University. This document has been published as part of the Journal of Business Systems, Governance and Ethics in both online and print formats. Educational and non-profit institutions are granted a non-exclusive licence to utilise this document in whole or in part for personal or classroom use without fee, provided that correct attribution and citation are made and this copyright statement is reproduced. Any other usage is prohibited without the express permission of the publisher.

can seek protection. In each case, the increased pluralism ensured by democratic institutions generates policy outcomes that reduce the multinational enterprises degree of freedom in the host developing country (Li and Resnick, 2003). O'Donnell (1978) specified that investors share better with autocrats than with democratic leaders. Whilst both autocrats and democratic leaders may receive economic benefits from FDI, autocrats face lower constraints than

democratic leaders if they choose to protect foreign investors and investments from pressures such as higher wages, labor protection and unfriendly taxation schemes. According to O'Donnell, autocracy is more attractive to FDI than democracy.

While the economic determinants of FDI flow to developing countries have been analyzed to a considerable degree, the importance of changes in democratic systems in host countries has received relatively little attention. Researchers (Wheeler and Mody (1992), Hines (1995) and Wei (2000)) have studied the correlation between corruption and FDI. Brunetti and Weder (1998) found a negative link between institutional uncertainty and investment. Jun and Singh (1996) inspected the effect of an indicator for political risk on the value of foreign direct investment inflows. However, there is far less literature on the FDI-democracy nexus and what is clear in these papers is that no consensus has been reached about the effect of democracy on FDI. There appears to be three groups in the literature: those that claim a negative effect, those that claim a positive effect, and those that find no effect.

Asiedu and Lien (2011) argued there are only twelve published articles that include democracy as a determinant of FDI. For instance, Resnick (2001) and Li and Resnick (2003) found that the level of democracy has a negative impact on foreign capital flows. However, property rights encourage FDI flows. In contrast, Li and Reuveny (2000) detected FDI has a positive effect on democracy. Also, Rodrik (1996), Harms and Ursprung (2001), Jensen (2003), Busse (2004), Jakobsen (2006), Jakobsen and de Soysa (2006), Adam and Filippaios (2007) and Busse and Hefeker (2007) found that multinational corporations are more likely to be attracted by countries in which democracy is respected. Oneal (1994), Alesina and Dollar (2000) and Bütke and Milner (2008) did not find a significant relationship between democracy and FDI.

As can be seen, few theoretical or empirical papers have studied the effect of democratic systems on FDI. Therefore, the overall effect of democracy on FDI has yet to be determined empirically. This study investigated the determinants of FDI for five developing countries during 1990-2012. The remainder of this paper is organized as follows. Section 2 introduces the literature. Section 3 constructs the model, variables and data. Section 4 supplies empirical procedure and results. Finally, Section 5 concludes and suggests policy recommendation.

## **Literature review**

Conclusions from a literature review were that the empirical research on FDI and democracy is scant and recent. Although there is considerable empirical literature on the determinants of FDI, few of the studies embody democracy as an explanatory variable. Still fewer empirically investigated the role of democratic systems in absorbing FDI. An exception was Oneal (1994), a pioneer who examined whether foreign firms invest more and collect more profit in authoritarian countries than in democracies. He found that the relationship between regime type and FDI flows is not statistically significant, and that returns on investment are best in developed democracies but greater in authoritarian countries.

Busse (2003) tried to examine empirically the complex relationship between democracy and FDI in a systematic way, using cross-sectional and panel data analysis. The results indicated that, on average, investments by multinationals are significantly higher in democratic countries, thereby refuting the hypothesis that political repression fosters FDI. However, this positive link did not hold for the 1970s. In that period, multinational enterprises were much more likely to invest in countries with repressive regimes, and significantly lower political rights of and civil liberties for the population.

Using both cross-sectional and time-series cross-sectional tests of the determinants of FDI for more than 100 countries, Jensen (2003) concluded that democratic political systems attract higher levels of FDI inflows both across countries and within countries over time. Democratic countries were more appealing attracting as much as 70 percent more FDI than their authoritarian counterparts.

Busse and Hefeker (2007) explored the linkages among political risk, institutions and foreign direct investment inflows. For a data sample of 83 developing countries covering 1984 to 2003, they identified indicators that matter most for the activities of multinational corporations. The results showed that government stability, internal and external conflict, corruption and ethnic tensions, law and order, democratic accountability of government, and quality of bureaucracy are highly significant determinants of foreign investment inflows.

The issue of whether natural resources in host countries altered the relationship between democracy and foreign direct investment was explored by Asiedu and Lien (2011). They estimated a linear dynamic panel-data model using data from 112 developing countries over the period 1982–2007. Results showed that the effect of democracy on FDI depended on the importance of natural resources in the host country's exports. Democracy facilitates FDI in countries where the share of natural resources in total exports is low, but has a negative effect on FDI in countries where exports are dominated by natural resources.

Nieman and Thies (2012) attempted to sort out the roles that democracy and property rights play in attracting FDI from 1970 to 2008 through careful theorizing and the use of a non-nested hierarchical modeling strategy. Their theoretical and empirical analyses demonstrated that the effect of property rights on attracting FDI is contingent on democratic institutions. That is, in the absence of democratic institutions, property rights protections actually exert a negative impact on FDI. However, as the level of democratic institutionalization improves, the effect of property rights on FDI becomes increasingly positive.

The relationship between foreign direct investment, corruption and democracy was studied by Mathur and Singh (2013). They found that foreign investors care about economic freedoms, rather than political freedoms, in making decisions about where to locate capital. In addition, countries that are more democratic receive less foreign direct investment flows if economic freedoms are not guaranteed. One reason could be that developing economies, becoming democracies, are often unable to push through the kind of economic reforms that investors desire due to the presence of competing political interests.

## Model, Variables and data

FDI is a popular subject in international business literature. Numerous statistical and econometric analyses have identified factors which play a role in explaining FDI. Modeling FDI is a complicated task because so many variables intervene. Among explanatory variables, economic phenomena are quantifiable and available. The selection of the explanatory variables was based on the existing literature and data availability, and then the following equation was chosen:

$$FDI_{i,t} = \alpha_i + \gamma_t + \beta_1 Lit_{i,t} + \beta_2 InfR_{i,t} + \beta_3 Opn_{i,t} + \beta_4 Cor_{i,t} + \beta_5 Dem_{i,t} + \beta_6 InfS_{i,t} + \varepsilon_{i,t}$$

Variables are expressed across a series of countries ( $i=1, \dots, N$ ) and time periods ( $t=1, \dots, T$ ). The first two terms on the right hand side are the intercept parameters, which change among the various countries  $i$  and years  $t$ . They allow for specific effects across countries ( $\alpha_i$ ) and through time ( $\gamma_t$ ).  $\varepsilon_{i,t}$  shows random disturbance. FDI net inflows in current US dollars were the dependent variable in the regression. Explanatory variables are as follow: Lit for literacy rate, InfR for inflation rate, Opn for openness, Cor for corruption, Dem for democracy and InfS for infrastructure.

*literacy rate:* The first determinants is literacy rate in order to account for the notion that a higher level of education raises the productivity of capital and thus increases a country's attractiveness for foreign investors. Since the literacy rate as a measure of a country's human capital stock exhibits a strong positive correlation with per capita income, this variable also accounts for the fact that richer economies are better locations for market-seeking FDI (Harms and Ursprung, 2001). In a recent paper in 2013, Mathur and Singh used literacy rate and concluded that it has positive and significant effect

on FDI inflows. We expect the larger the literacy rate, the more absorption of FDI. Based on data scanty we use secondary education as a proxy for literacy rate.

*Inflation rate:* It is expected that inflation deters foreign investors, since it affects the country's overall financial performance and it relates to macroeconomic mismanagement, which inhibits inward FDI. Asiedu and Lien (2011) inferred that less inflation promote FDI.

*Openness:* It is measured as the sum of exports and imports divided by gross domestic products and is expected that the greater the trade size the higher the level of FDI inflows. It is likely that economic conditions for a better investment environment may overlap with conditions for a better international trade environment, or simply that trade flows correlate with investment flows (Ng, 2010).

*Corruption:* High levels of corruption have been associated with low exposure to international trade, high tariff levels and dependence on natural resources, while corruption itself tends to slow economic growth and discourage investment (Larrain and Tavares, 2004). There is an abundant literature on the effects of corruption on openness, particularly on how higher corruption leads to lower levels of foreign direct investment. Wei (2000) and Smarzynska and Wei (2000) have found evidence that American and European investors are indeed averse to corruption in the host countries. In addition, Mauro (1995) showed evidence that both economic growth and private investment are negatively affected by the extent of corruption.

*Democracy:* It has been argued that there are many sources that provide ratings on the level of democratization in various countries, but none of the measures of democracy is perfect (Asiedu and Lein, 2011). For example, Poe and Tate (1994) stated that the Freedom House data on civil and political liberties, which are one of the most utilized data in the profession, are biased in favor of Christian nations and Western democracies. Casper and Tufis (2003) also cautioned that totally different measures of democracy, even ones extremely correlated, might not be interchangeable. As a result, they will turn out very different results.

Based on literature, three common measures were used to measure democracy. The first measure of democracy is derived from the data on political rights published by Freedom House. The second measure is derived from the democracy index published in Polity IV. The third measure is the measure of democracy published in the International Country Risk Guide. Most of the scant literature on the democracy debate uses Polity Project data (Table 1). Therefore, in order to increase the credibility of results, this study used polity, which is derived from the democracy index published by Polity IV. The Polity IV Project has rated the levels of democracy for each country and year using coded information on the general qualities of political institutions and processes, including executive recruitment, constraints on executive action, and political competition. These ratings were combined into a single, scaled measure of regime governance: *the Polity score*. The Polity scale ranges from -10, fully institutionalized autocracy, to +10, fully institutionalized democracy.

**Table 1: Summary of democracy measurements**

<b>Paper</b>	<b>Source for democracy measurement</b>
<b>Barrow (1994)</b>	Gastil Index of Political Freedoms
<b>Leblang (1996)</b>	Polity II
<b>Jensen (2003)</b>	Polity III
<b>Li and Resnick (2003)</b>	Polity IV
<b>Jakobsen and de Soysa (2006)</b>	Polity IV and Freedom House
<b>Rana and Kebewar (2014)</b>	Polity IV

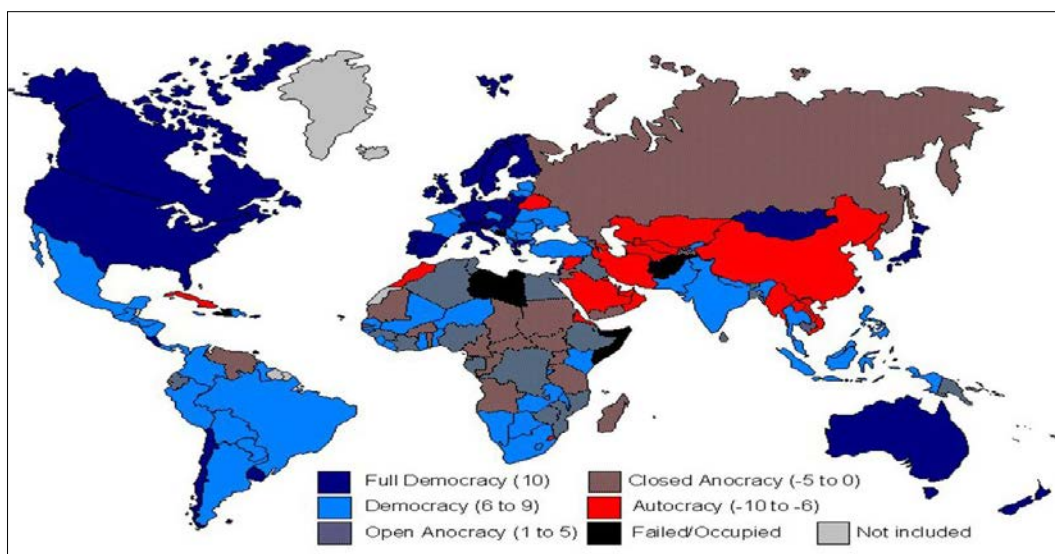
Source: own investigation

*Infrastructure:* Foreign investors prefer economies with a well-developed network of roads, airports, water supply, uninterrupted power supply, telephones, and internet access. Poor infrastructures increase the cost of doing business and reduce the rate of return on investment. Other things being

constant, production costs are typically lower in countries with well-developed infrastructures than in countries with poor infrastructures. Countries with good infrastructures are therefore expected to attract more FDI (Onyeiwu, 2003). Wheeler and Mody (1992) found that infrastructure quality is an important variable for developing countries seeking to attract FDI from the United States. Using a self-reinforcing model of FDI, Cheng and Kwan (2000) found support for good infrastructure (density of roads) as a determinant of FDI into 29 Chinese regions. A measure to capture the level of infrastructure was Internet users per 100 people (people with access to the worldwide network), which was expected to be positively correlated with FDI<sup>1</sup>.

The data used in this paper have been extracted from World Bank and Polity IV for 5 developing countries during 1990-2012. Countries were selected which were successful in attracting FDI, also they should be in the list of democratic countries. Based on the Global Report 2013 of "Center for Systemic Peace" (Figure 1), Malaysia, Philippine, Singapore, Thailand and Turkey were countries with a general trend of rising FDI and democratic systems.

**Figure 1: Distribution of governance regimes in the global system**



## Empirical procedure and results

The empirical analyses of panel data in this study comprise the following four steps. First, the stationarity of data were examined by panel unit root tests. Second, tests for cointegration among panel data were the panel cointegration test developed by Pedroni (1999, 2004), and the Hausman test for exploring heteroscedasticity. Fourth, once the panel heteroscedasticity was established, the GLS technique was employed. The procedure of the tests represent in the following manner: Panel unit root test→Panel cointegration test→Hausman and Likelihood → GLS

- **Panel unit root test**

There are a variety of panel unit root tests which include Breitung (2000), Hadri (2000), Choi (2001), Levin et al. (2002), Im et al. (2003). The Breitung (2000) and Levin et al. (2002) initiated research on the panel unit root with heterogeneous dynamics, fixed effects, and an individual specific determinant trend. However, they assumed the presence of a homogeneous autoregressive root under the alternative. Whereas Im et al. (2003) allowed the between-group panel unit root tests that permit heterogeneity of the autoregressive root under the alternative. In addition Choi (2001) suggested that comparable unit root tests be performed using the non-parametric Fisher statistic. The null hypotheses of all unit root tests are to have a unit root in a series. While a great deal of research has been devoted

<sup>1</sup> See also Mathur and Singh (2013) and Root and Ahmed, 1979



to the use of unit root tests, the most popular seems to be the approaches by Levin et al. (2002) (LLC) and Im et al. (2003) (IPS) unit root tests.

Table 2 reports the results of the LLC and IPS tests. The panel unit root tests provide strong evidence in support of the six series having a unit root and all the variables are integrated of order one<sup>2</sup>. By using these results, we proceed to test for cointegration in order to determine whether there is a need to control for a long-run equilibrium relationship in the econometric specifications.

**Table 2: Panel Unit Root Tests**

Variable	LLC	IPS
<b>FDI</b>	-7.748 (0.000)	-6.485 (0.000)
<b>Lit</b>	-2.081 (0.018)	-1.445 (0.0742)
<b>InfR</b>	-4.565 (0.000)	-6.185 (0.000)
<b>Opn</b>	-4.310 (0.000)	-4.003 (0.000)
<b>Cor</b>	-5.093 (0.000)	-3.518 (0.0002)
<b>InfS</b>	-4.609 (0.000)	-4.334 (0.000)

Note \* P values are in parentheses

Source: own estimation

- **Panel cointegration test**

The extensive interest in and the availability of panel data has led to an emphasis on extending various statistical tests to panel data. Recent literature has focused on the examination of cointegration in a panel setting. The most used tests are as follow: Pedroni (1999, 2004), Kao (1999), and a Fisher-type test using an underlying Johansen methodology (Maddala and Wu, 1999). Overall, we use Pedroni (1999, 2004) panel cointegration test. He proposed two sets of tests. One is based on the within dimension approach which includes four statistics:  $v$ -statistic,  $\rho$ -statistic, PP-statistic and ADF-statistic. These statistics essentially pool the autoregressive coefficients across different countries for the unit root tests on the estimated residuals. These statistics take into account common time factors and heterogeneity across countries. The group tests are based on the between dimension approach which includes three statistics: group  $\rho$ -statistic, group PP-statistic and group ADF-statistic. These statistics are based on the averages of individual autoregressive coefficients associated with the unit root tests of the residuals for each country in the panel. Table 3 reports both the within and between dimension panel cointegration test statistics. As can be seen from the table, a majority of the statistics significantly reject the null of no cointegration.

**Table 3: Results for Pedroni Test**

Within dimension		Between dimension	
Test statistics		Test statistics	
<b>Panel <math>v</math>-statistic</b>	-1.971 (0.0001)	Group $\rho$ -statistic	4.587 (1.000)
<b>Panel <math>\rho</math>-statistic</b>	3.839 (0.999)	Group PP-statistic	-3.619 (0.0001)
<b>Panel PP-statistic</b>	2.365 (0.000)	Group ADF-statistic	-3.552 (0.0002)
<b>Panel ADF-statistic</b>	-3.475 (0.0003)		

\* P values are in parentheses

<sup>2</sup> ADF-Fisher and PP-Fisher tests were also performed. All the tests indicated that the respective variables contain a unit root. Results are available upon request from the authors.

- **Hausman**

Panel data may have group effects, time effects, or both. These effects are either fixed effect or random effect. A fixed effect model assumes differences in intercepts across groups or time periods, whereas a random effect model explores differences in error variances. The Hausman specification test compares the fixed versus random under the null hypothesis of the existence of a random effect model (Hausman 1978). The Hausman test specification recommended the use of fixed effect model. Table 4 reports the relevant estimates.

- **Panel Heteroscdasitcty**

Before proceeding to the final estimation, test for dynamic heterogeneity across groups are performed. An issue that is of major concern is the heterogeneity of the countries included in the data set. It is well known that the presence of heteroscdasitcty in the disturbances of an otherwise properly specified linear leads to consistent but insufficient parameter estimates. As a result, faulty inferences will be drawn when testing statistical hypotheses in the presence of heteroscdasitcty (White, 1980). The heteroscdasitcty test for the used variables was investigated and results are summarized in Table 4.

**Table 4: Results for Hausman and Heteroscdasitcty Tests**

Test	Distribution	Stat	Prob
Hausman	Chi2	137.02	0.000
Heteroscdasitcty	Wald Chi2	133.05	0.000

Source: own estimation

For avoiding heteroscdasitcty in the model, the Likelihood ratio test was employed. The results indicate that the hypothesis based on the existence of homoscedasticity in variances should be rejected, and that the model has heteroscdasitcty.

- **GLS**

In statistics, Generalized Least Squares (GLS) is a technique for estimating the unknown parameters in a linear regression model. The GLS is applied when the variances of the observations are unequal (heteroscdasitcty), or when there is a certain degree of correlation between the observations. In these cases, Ordinary Least Squares can be statistically inefficient, or even give misleading inferences. The results of GLS estimation is supplied in Table 5.

**Table 5: Results for GLS estimation**

Variables	Coefficient	Z	Prob
Lit	-0.0006	-10.05	0.000
InfR	-0.009	-9.38	0.000
Opn	1.366	3.654	0.000
Cor	-2.338	-1.98	0.047
Dem	1.895	2.42	0.015
InfS	0.004	4.56	0.000
<b>Prob= 0.000</b>		Wald= 418.31	

Source: own estimation

All the explanatory variables specified in the econometric function are seen to be significant elements in affecting FDI and the overall fit of the panel model is reasonable. The GLS regression of FDI on various economic and political characteristics of the host country, suggests that the effect of literacy rate on FDI absorption is positive and significant, which is in line with recent empirical evidence by Mathur and Singh (2013). Our statistical analyses provide empirical support for our view about the

negative effect of inflation on FDI. Prices increment lead to abatement in net profit and property values. In addition, it increases the investment risk and instability in macroeconomic policies.

The estimated results of our panel regression indicate that openness was positively and significantly correlated with investment. The positive impact of openness seems to confirm the arguments that trade liberalization leads to a more general reduction in administrative barriers and improves the business environment in the host economy. Countries with low trade barriers also tend to have low barriers to FDI, as well as convey the right signal to the international business community (Lall, 2000). In a more specific context, free trade zones have been successful in attracting FDI with stable, growing economic environment and trade liberalization (Madani, 1999). Corruption can deter foreign investors from investing in a country. Apart from raising the cost of doing business, corruption slows down the process of obtaining the business permits necessary for operating in the host economy.

The results for democratic systems of government show that foreign investors are also highly sensitive to changes in the framework within which governments operate. Fundamental democratic rights, like civil liberties and political rights do matter to multinationals operating in developing countries. This result is in line with the findings by Harms and Ursprung (2001), Jensen (2003) and Busse (2004), who all showed that basic democratic rights are positively associated with FDI inflows, even if the specifications of their models differ. It has been found that infrastructures that are more extensive were associated with increased FDI.

Government infrastructure is used to refer to a country's political, institutional, and legal environment. It captures aspects of legislation, regulation, and legal systems that condition freedom of transacting, security of property rights, and transparency of government and legal processes (Globerman and Shapiro, 2002).

## Conclusion and policy recommendation

This paper has estimated the effects of democracy on inflows of foreign direct investment. Using data from 1990 to 2012, across 5 developing countries comprised of Malaysia, Philippine, Singapore, Thailand and Turkey. This paper has found and presented evidence that democratic systems increase FDI inflows to developing countries. This finding is largely consistent with findings of previous literature on this topic. We also determine other influential factors like literacy rate, inflation, openness, corruption and infrastructure. All variables show significant sign in explaining FDI.

Over the past decades, developing countries have attempted to improve their business climate in an effort to attract foreign investments. To foster more FDI, many solutions can be suggested, but it is a difficult task because it takes time and it is hard to implement policies that can convince potential investors. To improve the climate for FDI, implementation of a few visible actions is essential in the strategy of attracting FDI. Countries with large domestic markets and proper allocation of resources have inevitably experienced high foreign investments, so strong economic growth and aggressive trade liberalization can fuel the interest of foreign investors. Improving the availability of infrastructure, through higher investment in education and increasing government spending towards capital investment, and phasing out capital controls have been some of the steps taken to boost investor confidence and foreign investment. In addition, a well-designed policy framework and long regime durability could be productive and successful.

## Reference

- Adam, A., and Filippaios, F. (2007). Foreign direct investment and civil liberties: A new perspective. *European Journal of Political Economy*, 23 (4), 1038–1052.
- Alesina, A., and Dollar, D. (2000). Who gives foreign aid to whom and why? *Journal of Economic Growth*, 5 (1), 33–63.
- Asiedu, E., and Lien, D. (2011). Democracy, foreign direct investment and natural resource. *Journal of International Economics*, 84, 99–111.

- Barrow, R. (1994). Democracy and Growth. NBER Working Paper, No. 4909.
- Breitung, J. (2000). The local power of some unit root tests for panel data. In: Baltagi, B. (Ed.), *Advances in Econometrics, Vol. 15: Nonstationary Panels, Panel Cointegration, and Dynamic Panels*. JAI Press, Amsterdam, 161–178.
- Brunetti, A., and Beatrice W. (1998). Investment and institutional uncertainty: A comparative study of different uncertainty measures. *Weltwirtschaftliches Archiv*, 134 (3), 513-533.
- Busse, M. (2003). Democracy and FDI. HWWA Discussion Paper 220.
- Busse, M. (2004). Transnational corporations and repression of political rights and civil liberties: An empirical analysis. *Kyklos*, 57 (1), 45–66.
- Busse, M., and Hefeker, C. (2007). Political risk, institutions and foreign direct investment. *European Journal of Political Economy*, 23 (2), 397–415.
- Büthe, T., and Milner, H.V. (2008). The politics of foreign direct investment into developing countries: Increasing FDI through international trade agreements? *American Journal of Political Science*, 52 (4), 741–762.
- Casper, G., and Tufis, C. (2003). Correlation versus interchangeability: The limited robustness of empirical finding on democracy using highly correlated data sets. *Political Analysis* 11, 196–203.
- Cheng, L.K., and Yum K.K. (2000). What are the determinants of the location of foreign direct investment? The Chinese experience. *Journal of International Economics*, 51(2), 379-400.
- Choi, I. (2001). Unit root tests for panel data. *Journal of International Money and Finance*, 20 (2), 249-272.
- Globerman, S., and Daniel S. (2002). Global foreign direct investment flows: The role of governance infrastructure. *World Development*, 30, 1899–1919.
- Hadri, K., (2000). Testing for stationary in heterogeneous panel data. *Econometric Journal*, 3, 148–161
- Harms, P., and Ursprung, H.W. (2001). Do civil and political repression really boost foreign direct investment? *Economic Inquiry*, 40 (4), 651–663.
- Hausman, J. (1978). Specification tests in econometrics. *Econometrica*, 46 (6), 1251-1271.
- Hines, J. (1995). *Forbidden payment: Foreign bribery and American business after 1977*. NBER Working Paper 5266, Cambridge.
- Im, K.S., Pesaran, M.H., and Shin, Y., (2003). Testing for unit roots in heterogeneous panels. *Journal of Econometrics*, 115, 53–74.
- Jakobsen, J. (2006). Does democracy moderate the obsolete bargaining mechanism? An empirical analysis, 1983–2001. *Transnational Corporations*, 15 (3), 67–106.
- Jakobsen, J., and de Soysa, I. (2006). Do foreign investors punish democracy? Theory and empirics, 1948-2001. *Kyklos* 59 (3).
- Jensen, N. (2003). Democratic governance and multinational corporations: Political regimes and inflows of foreign direct investment. *International Organization*, 57 (3), 587–616.
- Jun, K., and Singh, H. (1996). The determinants of foreign direct investment in developing countries. *Transnational Corporations*, 5 (2), 67-105.
- Kao, C. (1999). Spurious regression and residual-based tests for cointegration in panel data. *Journal of Econometrics*, 90, 1–44.
- Lall, S. (2000). *FDI and development: Research issues in the emerging context*. Oxford: Oxford University.
- Larrain, B.F., and Tavares, J. (2004). Does foreign direct investment decrease corruption?. *Cuadernos De Economia*, 41, 217-230.
- Leblang, D. (1996). Property rights, democracy and economic growth. *Political Research Quarterly*, 49 (1).
- Levin, A., Lin, C.F., and Chu, C., (2002). Unit root tests in panel data: Asymptotic and finite sample properties. *Journal of Econometrics*, 108, 1–24.
- Li, Q., and Resnick, A. (2003). Reversal of fortunes: Democratic institutions and foreign direct investment inflows to developing countries. *International Organization*, 57, 175–211.
- Li, Q. (2009). Democracy, autocracy, and expropriation of foreign direct investment. *Comparative Political Studies* 42 (8), 1098–1127.

- Li, Q., and Reuveny, R. (2000). Economic globalization and democracy: An empirical analysis. Paper presented at the International Studies Association annual meeting, Los Angeles, CA, and the Midwest Political Science Association annual meeting, Chicago.
- Madani, D. (1999). A review of the role and impact of export processing zones. Policy Working Paper, No. 2238 (Washington D.C.: World Bank).
- Maddala, G.S., and Wu, S. (1999). A comparative study of unit root tests with panel data and a new simple test. *Oxford Bulletin of Economics and Statistics* 61, 631–652.
- Mathur, A., and Singh, K. (2013). Foreign direct investment, corruption and democracy. *Applied Economics*, 45, 991-1002.
- Mauro, P. (1995). Corruption and growth. *Quarterly Journal of Economics* ,110 (3), 681-712
- Ng, J. (2010). The political economy of democracy and FDI inflows in oil countries. Masters' Thesis for MA, Columbia University in the city of New York.
- Nieman, M.D., and Thies, C.G. (2012). Property rights regimes, technological innovation, and foreign direct investment. Under review paper.
- North, D.C., and Weingast, B.R. (1989). Constitutions and commitment: The evolution of institutions governing public choice in seventeenth-century England. *Journal of Economic History*, 49 (4), 803–832.
- O'Donnell, G. (1978). Reflections on the patterns of change in the bureaucratic authoritarian state. *Latin America Research Review*, 13 (1), 3-28.
- Olson, M. (1993). Dictatorship, democracy, and development. *American Political Science Review*, 87 (3), 567-76.
- Oneal, J.R. (1994). The affinity of foreign investors for authoritarian regimes. *Political Research Quarterly*, 47, 565–588.
- Onyeiwu, S. (2003). Analysis of FDI flows to developing countries: Is the MENA region different? ERF 10 annual conference, Marrakesh, Morocco, December, 1-22.
- Pedroni, P. (1999). Critical values for cointegration tests in heterogeneous panels with multiple regressors. *Oxford Bulletin of Economics and Statistics* 61, 653–670.
- Pedroni, P. (2004). Panel cointegration: Asymptotic and finite sample properties of pooled time series tests with an application to the PPP hypothesis. *Econometric Theory*, 20, 597–625.
- Poe, S., and Tate, N. (1994). Repression of human rights to personal integrity in the 1980s: A global analysis. *American Political Science Review*, 88 (4), 853–872.
- Rana, A.T., and Kebewar, M. (2014). The political economy of FDI flows into developing countries: Does the depth of international trade agreements matter?. MPRA Paper, 53358, University Library of Munich, Germany.
- Resnick, A. (2001). Investors, turbulence, and transition: Democratic transition and foreign direct investment in nineteen developing countries. *International Interactions*, 27 (4), 381–98.
- Rodrik, D. (1996). Understanding economic policy reform. *Journal of Economic Literature*, 34, 9–41.
- Root, F., and Ahmed, A. (1979). Empirical determinants of manufacturing direct foreign investment in developing countries, *Economic Development and Cultural Change*, 27, 751–67.
- Smarzynska, B., and Wei, S-J. (2000). Corruption and composition of foreign direct investment: Firm-level evidence, NBER working paper No. 7969.
- UNCTAD. (1997). World investment report. Geneva: United Nations Conference on Trade and Development.
- Wei, S-J. (2000). How taxing is corruption on international investors?, *Review of Economics and Statistics*, 82 (1), 1-11.
- Wheeler, D., and Mody, A. (1992). International investment location decisions: The case of U.S. firms. *Journal of International Economics*, 33 (1), 57-76.
- White, H. (1980). A heteroskedasticity consistent covariance matrix estimator and a direct test for heteroskedasticity. *Econometrica*, 48 (4), 817-838.

# An Empirical Examination of the Relationship Between Information Security/Business Strategic Alignment and Information Security Governance Domain Areas

Winfred Yaokumah  
Pentecost University, Ghana

Steven Brown  
Capella University, United States

---

## Abstract

*The purpose of this study was to examine empirically the extent of the relationships between information security governance (ISG) strategic alignment and other individual information security domain areas consisting of risk management, value delivery, performance measurement, and resource management in order to ascertain whether the domain areas were integrated for ISG success in Ghanaian organizations. Corporate governance theories, including agency theory, stakeholder theory, and organizational theory, were employed to explore the literature. These theories were mapped to strategic alignment, risk management, resource management, performance measurement, and value delivery domains of information security governance. Random sampling strategy was used and data were collected via web survey. The data analysis employed a linear regression analysis to determine the degree of correlation among the domain areas. The study found that relationships between information security governance strategic alignment and other ISG domains were positively statistically significant. Strategic alignment was related to risk management ( $R^2 = .836$ ); to value delivery ( $R^2 = .718$ ), to performance measurement ( $R^2 = .722$ ), and to resource management ( $R^2 = .747$ ). The results highlighted consistent importance of strategic alignment practices as a predictor of organizational information security risk management, performance measurement, resource management, and value delivery. This implies that effective information security governance strategic alignment greatly improves organizations' risk management, resource management, performance measurement, and delivers business value. Therefore, organizations should improve strategic alignment attributes in order to attain effective information security governance.*

## Introduction

An important aspect of corporate governance is to ensure that organizational information assets are secured. Information asset can be

Copyright © 2014 Victoria University. This document has been published as part of the Journal of Business Systems, Governance and Ethics in both online and print formats. Educational and non-profit institutions are granted a non-exclusive licence to utilise this document in whole or in part for personal or classroom use without fee, provided that correct attribution and citation are made and this copyright statement is reproduced. Any other usage is prohibited without the express permission of the publisher.

understood as an item of value that contains information which can be human, technological, software, or other. Keeping information safe and secure is a key necessity for every modern organization and the board of directors and executive management are ultimately accountable for the organization's success (von Solms, 2006). It is therefore imperative that the top

executives take responsibility for the protection of their company's information asset. Research discussed information security extensively but rather few studies addressed information security as corporate governance concern particularly in the developing nations (El-Meligy, 2011).

Corporate governance is a set of processes and structures for controlling and directing an organization (Abdullah and Valentine, 2009). Accordingly, corporate governance constitutes a set of rules which govern the relationships between management, shareholders, and other stakeholders (Ching et al., 2006). Information security governance is regarded as a part of corporate governance function. Information Technology Governance Institute (ITGI, 2006) defined information security governance as "a subset of enterprise governance that provides strategic direction, ensures that objectives are achieved, manages risks appropriately, uses organizational resources responsibly, and monitors the success or failure of the enterprise security programme" (p. 18), all in an attempt to protect sensitive information from unauthorized access, accidental loss, destruction, disclosure, modification, or misuse (Tassabehji, 2005). Information security governance, thus, involves oversight, policy formulation, accountability, strategic planning, and resource allocation to mitigate risk to critical organization data (Allen, 2006). Therefore, a study on information security governance must be based on the fundamental theories of corporate governance.

Corporate governance theories can have effect on information security governance practices as they address "people (agents), their accountability, their roles, their interactions, their activities, and their use of resources" (Valiris and Glykas, 2004, p. 73). Among these theories are the agency theory, resource-based view (RBV) of the organization theory, and the stakeholder theory. Abdullah and Valentine (2009) suggested that a combination of various theories should be considered when describing good governance rather than theorizing corporate governance based on a single theory. These three theories are relevant in defining the constructs that form information security governance domain areas. Deriving constructs from previously established and proven theories offered a well grounded and comprehensive understanding of the phenomenon and aided the choice of established measures (Moghdeb et al., 2007). Five constructs have been derived from corporate governance theories. These constructs correspond with information security governance domain areas consisting of strategic alignment (SA), value creation (VD), risk management (RK), resource management (RM), and performance measurement (PM) and which were identified by IT governance Institute (ISACA, 2006).

Previous studies suggest that for successful information security governance in organizations, with the aim of mitigating information security risks from the corporate governance level, there should be positive relationships among SA, VD, RK, RM, and PM (ITGI, 2008; Oppliger, 2007; Wilkin and Chenhall, 2010). According to ITGI (2008), information security value delivery to the organization depends on strategic alignment between information security and business objectives, indicating that organizations can obtain value from security investment when there is an alignment between information security and business goals. Wilkin and Chenhall (2010) explained that business value can be realized with strategic business and IT alignment even without the use of other governance structures and processes. Similarly, Johnston and Hale (2009) and Oppliger (2007) found SA as the cornerstone for RK. Moreover, Prybutok et al. (2008) and Neirotti and Paolucci (2007) identified SA as positively linked to PM. Again, SA is imperative for RM (Wilkin and Chenhall, 2010). However, these studies were based on qualitative examination of the constructs, lacking empirical proof of the relationships between SA and other domain areas.

This study empirically examines the extent of the relationship between information security/business strategic alignment and individual information security domain areas, which are risk management, value delivery, performance measurement, and resource management (De Haes and Van Grembergen, 2009) in organizations. Collecting data from Ghanaian organizations, this study aims at establish the degree of the relationships among the variables with the intent of ascertaining whether the domain areas are appropriately integrated for ISG success. In order to investigate these areas effectively, it is important, first of all, to discuss the different underlying governance theories and to map ISG domain areas to their intellectual origins. In order for organizations to minimize security risks, the study

posits that it is critical to align the security/business strategic objectives with the information security domains.

## Literature Review

Corporate governance theories are an appropriate theoretical foundation for studies on information technology and security governance (Bihari, 2008; Posthumus, von Solms, and King, 2010; Wouldson and Pollard, 2009). In conducting organizational research, Eisenhardt (1989) suggested that theory should be used as an initial guide to design and data collection. Also, Walsham (1995) emphasized the importance of creating an initial theoretical framework that takes account of previous knowledge and forms a sensible theoretical basis for an empirical work. Corporate governance theorists analyzed governance structures, processes, practices, and effectiveness from different theoretical perspectives, including agency theory (Fama and Jensen 1983), organization theory (Habbershon and Wouldiams 1999; Carney 2005, Le Breton-Miller and Miller 2006, and stakeholder theory (Freeman, 1984). Notwithstanding, there are other theories (such as stewardship theory) that could be applicable in deriving the constructs for this study, but the three selected theories have significant potential impact on achieving information security governance practices as discussed in the following section.

Figure 1 summarizes how corporate governance theories define the domains of information security governance. In the context of information security governance practices, the three governance theories map to information security governance domain areas. Thus, the agency theory maps to risk management and performance measurement and monitoring, stakeholder theory maps to strategic alignment and value creation, and organizational theory maps to resource management.

### Agency Theory: Risk Management and Performance Measurement

The agency theory is based on a fundamental premise that owners (principals) establish a relationship with managers (agents) and delegate work to them (Alchian and Demsetz, 1972). In this theory, the owners or principals, who are the shareholders of the organization, hire the agents to perform tasks, and expect them to act and make decisions in the principal's best interest. It has been observed that the agents do not always make decisions in the best interest of the principal (Padilla, 2002) but rather decisions are made based on self-interest (Jensen and Meckling, 1976).

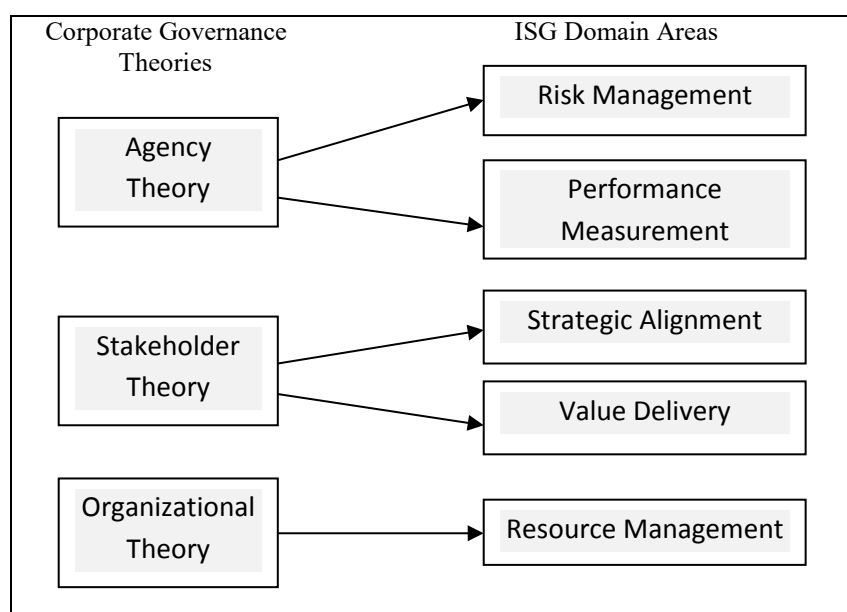


Figure 1: Mapping Corporate Governance Theories to ISG Domain Areas



Note: ISG: information Security Governance

Agency theory has important application in the governance of organizations. Eisenhardt (1989) identified two different uses of agency theory: the positivist and the general approaches. The positivist approach focused mainly on the principal-agent relationship in terms of owners and managers in respect with large and public corporations (Berle, 1932). In this arrangement, the agents are controlled by principal-made rules with the intent to maximize shareholder values (Abdullah and Valentine, 2009). The more general approach is the principal-agent relationship that can be applied to employer-employee, buyer-supplier, and other agency relationships (Harris and Raviv, 1979). The positivist approach applies to organizations where the agents must follow the principal-made rules and guidelines to govern the organizations' information security.

Agency theory has significant implications for information security governance practices. Firstly, the agency theory assumes that the basis of the organization is efficiency (Eisenhardt, 1988, 1989), which is one of the fundamental drivers of good governance. Managers are, therefore, expected to make sure performance through monitoring and measurement within their organizations is efficient (Valiris and Glykas, 2004) and effectively monitored. Performance measurement is said to be in place when the board of directors and executive management ensure that the organization quantifies, monitors, and reports on the performance of security processes in order to ensure that organizational objectives are achieved (ITGI, 2008; Thatcher and Pingry, 2007; Wang and Alam, 2007).

Secondly, Yu and Mylopoulos (1994) proposed three different levels of agency relationship: general, committed, and critical. These levels relate to the degree to which the agents are affected if the job fails. The three levels of agency theory translated into different levels of commitment and responsibilities that establish accountability and control (Valiris and Glykas, 2004), as well as punishments and rewards (Jensen and Meckling, 1976), leading organizations to make conscious efforts to minimize risks (managing risks) associated with organizational information assets. Risk management will be achieved when the boards of directors ensure that risk assessment and mitigation strategies are embedded into the organization's operations to guarantee quick reporting and response to the ever-changing risk challenges (Hardy, 2006). The intent of risk management is to mitigate risks and reduce adverse impacts on information assets to a satisfactory level (Bonabeau, 2007; Hu and Cooke, 2007; ITGI, 2006). Consequently, the ultimate goal of all organizational information security and assurance effort is to manage risk (Ask, Bjornsson, Johansson, Magnusson, and Nilsson, 2007; Gellings, 2007). Therefore, risk management is attained when it is efficiently, effectively, and consistently meeting an organization's security expectations and defined objectives (ITGI, 2008).

### **Stakeholder Theory: Strategic Alignment and Value Delivery**

In relation to the agency theory, Freeman (1984) extended corporate accountability to cover a broad range of stakeholders. Abdullah and Valentine (2009) defined stakeholder theory as "any group or individual who can affect or is affected by the achievement of the organization's objectives" (p. 91). The theory suggested that managers in organizations have a network of relationships to serve (Abdullah and Valentine, 2009), which are the suppliers, investors, customers, political groups, employees, communities, government, and trade associations.

With respect to good corporate governance, the stakeholder theory attempts to address various groups of stakeholders deserving and requiring management's attention (Sundaram and Inkpen, 2004) and all the stakeholders in the business look forward to obtain benefits (Donaldson and Preston, 1995). Clarkson (1995) added that in the stakeholder theory the organization is considered as a system where there are stakeholders and the purpose of the organization is to create wealth (value) for its stakeholders. Therefore, the firm can maximize value if it considers the interests of its stakeholders. Hence, value creation is a focus area of corporate governance practices. On the contrary, Freeman (1984) contended that this complex network of relationships with many stakeholders can affect decision making processes because the stakeholder theory involves not only creating values for the organization and its stakeholders but also involves complex structures and processes.

Notwithstanding, the basic focus of the stakeholder theory is on managerial decision making that advocates that organizations are accountable to all its stakeholders and strive to create value for the stakeholders.

The value information security investments delivers to enterprises is realized when the strategic management ensures that the organization increases the chance of selecting information security investments (a) with the highest potential of creating business value, (b) by increasing the likelihood of successful execution of selected investments, and (c) by reducing the risk of failure, particularly those risks that have high impact on the organization (Val IT, 2009). The board of directors must ensure that information security investments increase business value, reduce unnecessary costs; improve the quantity and quality of services, and enhance the overall level of confidence among the stakeholders (Gregor et al., 2006; Kobelsky et al., 2008). According to Hardy (2006) effective value delivery is achieved when the actual costs and return on security investment are properly managed.

Moreover, the stakeholder theory improves alignment of stakeholders' interest with organizational goals. Moghdeb, Indulska, and Green (2007) noted that aligning key stakeholders' concerns with business objectives can have a positive impact on the results of organizational performance. Governance in this case involves alignment creation through the stakeholders that constitute the structures involved in processes to affect the achievement of the organization's objectives.

Strategic alignment between information security and business strategy is established in an organization when the strategic management ensures that information security strategies are in harmony with business strategies (Hardy, 2006). For strategic alignment to be effective, the business strategy should encompass key information security capabilities, future security requirements, people, and information assets that can be deployed to meet business needs (Bernroider, 2008; Neirrotti and Paolucci, 2007; Prybutok et al., 2008; Thomas et al., 2009). Effective strategic alignment, therefore, must be dynamic, shared, and reshaped to meet changing business and security landscapes (Coutaz et al. 2005; Grover and Segars 2005) in order to avoid business failure.

## **Organizational Theory: Resource Management**

Whilst the stakeholder theory focuses on relationships with many groups for individuals and their needs, organizational theory concentrates on effective utilization of organizational resources to meet business objectives. There are other aspects of organizational theory, but the most contribution of organizational theory relevant to information security governance is the resource-based view (RBV). The RBV of the organizational theory concentrates on the role of the board of directors in providing access to essential resources needed by the organization (Hillman, Canella, and Paetzold, 2000). According to Hillman, Canella, and Paetzold (2000), the directors bring resources to the organization in the form of information, skills, and competencies. Organizations are viewed as a pool of human resources, capabilities, and competencies. Hence, the objective of governance is to generate, combine, and activate such resources to attain a competitive advantage. In this respect, governance is considered as the "determination of the broad uses to which organizational resources would be deployed" (Daily, Dalton, and Canella, 2003).

Beside resources, RBV theory focuses on capabilities. Capabilities are accumulated knowledge in organizations resulting from using its existing resources in an efficient and effective way to achieve its ultimate objectives (Idris, Abdullah, Idris, and Hussain, 2003). In this regard, information security governance practices share common standpoints with RBV theory in terms of cost-effectiveness in utilizing organizational capabilities to optimum levels that create competitive advantage (Moghdeb, Indulska, and Green, 2007). The point of reference of organization theory, therefore, is strategic management of resources and competencies to achieve organizational goals. Thus, organizational theory makes resource management, which includes information security resources, a core corporate governance practice in organizations.

Information security resources management can be viewed as the degree to which the board of directors ensures that appropriate resources and adequate skills exist in the organization to manage information security projects and activities (Hardy, 2006). Effective board governance of security resource can result in significant cost saving and, hence, place the organization in the strong position of taking on new and beneficial initiatives (Hardy, 2006) whereas ineffective resource management toward IS implementation can result in substantial business loss (Allen et al., 2008; Silva and Hirschhein, 2007).

## Conceptual Model and Research Questions

Prior studies established relationships among information security governance domain areas (Abu-Musa, 2010; ITGI, 2006; Wilkin and Chenhall, 2010). Figure 2 shows conceptual model of the relationships between the individual information security governance domain areas and information security/ business strategic alignment. The relationship between individual ISG domain areas of (a) resource management and strategic alignment, (b) value delivery and strategic alignment, (c) performance measurement and strategic alignment, and (d) risk management and strategic alignment are presented in the model.

The following four research questions were derived from the conceptual model (Figure 2).

*RQ1.*

*What is the extent of the relationship between strategic alignment and risk management?*

*RQ2.*

*What is the extent of the relationship between strategic alignment and value delivery?*

*RQ3.*

*What is the extent of the relationship between strategic alignment and performance measurement?*

*RQ4.*

*What is the extent of the relationship between strategic alignment and resource management?*

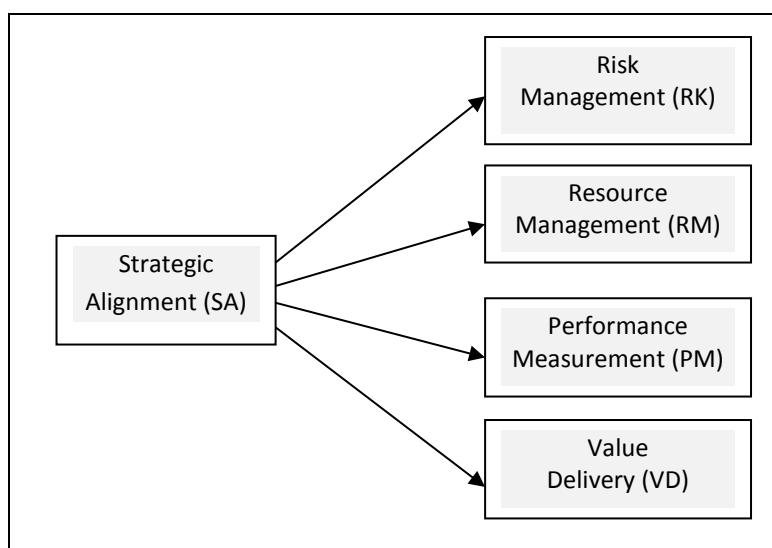


Figure 2. Relationship between SA and other ISG Domain Areas

## Methodology

The accessible population of this study was the organizations located within Greater Accra municipal area of Ghana that employed information technology to store, process, or transmit customers' personal identifiable data. One hundred and twelve organizations were identified and grouped according to their respective industry sectors. Specifically, the industry sectors include (a) public services, (b) public utilities, (c) financial institutions, (d) education institutions (both private and public), and (e) healthcare institutions. Other industry sectors that met the criteria for selection were grouped under others (Oil and Gas, IT companies, Manufacturing, etc), making six sectors.

A total of 120 organizations were identified from within the industry sectors and 360 respondents were randomly selected (three from each organization) were invited to take part in the study. Details of the samples include (a) forty-seven (6 public and 41 private) universities (141 participants), (b) thirty licensed banks registered in Ghana (90 participants), (c) three public utility companies (water, electricity, telecommunication) (9 participants), (d) twenty-two government public service institutions (66 participants), (e) five healthcare institutions (15 participants), and (f) thirteen others (IT, Manufacturing, Oil and Gas, etc.) (39 participants).

A Web-based survey was employed to collect the data. The survey enabled the participants to complete the survey questionnaire via the Internet. To improve response rate, the researcher adopted the Maronick's (2009) three strategies of data collection; namely pre-notification, personalized appeals, and promises of reward (access to the study's findings) for completing the survey. The data collected were analyzed using SPSS (Statistical Package for Social Scientists) version 17.0.

The survey instrument, Information Security Governance Assessment tool developed by Educause (2006) was adapted to collect data regarding RK, PM, RM; items on SA and VD were formulated from ISG literature (ITGI, 2006; 2008; Neirrotti and Paolucci, 2007; Thomas et al., 2009; Bonabeau, 2007; Johnson and Hale, 2009; Allen et al., 2008; Gregor et al., 2006; Korbelsky et al., 2008; Wang and Alam, 2007; Thatcher and Pingry, 2007). Field and pilot tests were conducted on the instrument to establish its validity and reliability. Validity was established by conducting a field test using a panel of experts; two security practitioners and three senior academic faculty members, who have significant experience with information security governance issues. Participants in the field test submitted their responses via email to the researcher. The feedback from the experts resulted in making some minor revisions to the instrument.

The five variables consist of 50 items and are measured on a 5-point Likert-like scales (*1 - not implemented, 2 - planning stages, 3 - partially implemented, 4 - close to completion, and 5 - fully implemented*) to measure participants' responses concerning the degree of ISG practices. For the instrument reliability using pilot testing, data were collected from 15 respondents drawn from within the sample frame (but who were not included in the study's actual data for measurement) and analyzed to determine the reliability coefficient (Cronbach's alpha). The reliability coefficients of the measures are: Strategic Alignment (SA) .972; Value Delivery (VD) .920; Resource Management (RM) .975; Risk Management (RK) .951; and Performance Management (PM) .979. The measures were all far above the threshold of 0.7 (or higher) and were considered acceptable according to Nunnally's (1978) guidelines.

## Data Analysis and Results

The research question evaluates the extent of the relationship between information security domain practices and information security governance strategic alignment in Ghanaian organizations. The research questions correspond to the four hypotheses which would be used to assess the extent of the relationship between strategic alignment and the other information security governance domain areas. The research hypotheses argued that information security governance domain practices, namely risk management (RK), resource management (RM), performance measurement (PM), and value delivery

(VD) are not positively related to information security governance strategic alignment (SA). In testing for all the four hypotheses, the construct SA was assigned the dependent variable, and the constructs RM, PM, VD, and RK the independent variables.

Simple regression analysis was employed to test the four null hypotheses ( $H_{01}$  to  $H_{04}$ ) in turn. The regression models tested were stated as:

*H<sub>01</sub>: The information security governance strategic alignment with business objectives (SA) is not positively related to information security governance risk management (RK) practices.*

$$RK = \beta_0 SA + \beta_1$$

*H<sub>02</sub>: The information security governance strategic alignment with business objectives (SA) is not positively related to information security governance value delivery (VD).*

$$VD = \beta_0 SA + \beta_1$$

*H<sub>03</sub>: The information security governance strategic alignment with business objectives (SA) is not positively related to information security governance performance (PM) measurement practices.*

$$PM = \beta_0 SA + \beta_1$$

*H<sub>04</sub>: The information security governance strategic alignment with business objectives (SA) is not positively related to resource management (RM) practices.*

$$RM = \beta_0 SA + \beta_1$$

where RK, VD, PM, and RM are the dependent variables; SA is the independent variable;  $\beta_1$  is a constant; and  $\beta_0$  is the slope (regression coefficient).

The data analysis was in two-fold: to summarize the data so that it would be easily understood and to provide the answers to the research questions (Kelly, Clark, Brown, and Sitzia, 2003) by using linear regression analysis. A total of 81 valid responses were received and out of this number, 28.4% respondents (corresponding to 23 participants) were from educational institutions (colleges, universities), 22.2% respondents (corresponding to 18 participants) were from financial institutions, 7.4% (corresponding to 6 participants) were from Public Utility companies (Water, Electricity, Telecom), 13.6% (corresponding to 11 participants) were from Public services, 8.6% (corresponding to 7 participants) were from Health Care institutions and 19.8% (corresponding to 16 participants) were from other sectors.

The large majority of respondents (40 in total or 48.4%) who participated in the study were IT Specialists (Managers) with the responsibility of managing and performing IT functions in their various organizations. Eleven respondents (representing 13.6%) were Business or Line Managers. Only one Board of Director and one Chief Executive Officer participated in the study. Five Chief Information Officers (representing 6.2%) and 5 Financial Controllers or Accountants (also representing 6.2%) took part in the study. Six (representing 7.4%) respondents were Internal Auditors, seven (representing 8.6%) were Human Resource Managers, and five (representing 6.2%) were others (i.e., IT consultants) also participated in the study.

For the number of years respondents had worked on the current job position, over a quarter of the participants (25.9%) had 1-5 years of experience. Well over one third of the participants (37%) had 6-10 years of experience. Twenty-one percent had 11-15 years of experience, 9.9% and 5% had 16-20 years and over 20 years of experience respectively.

## Strategic Alignment and Risk Management - Testing of Hypothesis 1

In order to determine the proportion of the variance in the risk management practices that is explained by information security governance strategic alignment, a simple linear regression analysis was conducted. The mean score on the information security risk management practices was 2.93 (N = 81; SD = 1.18) and the mean score on the information security governance strategic alignment was 3.14 (N = 81; SD = 1.14). The summary of the simple linear regression results were presented in Table 1, 2, and 3. The results indicated that as high as 83.6% ( $R^2 = .836$ ) of the variance in risk management (RK) was explained by the strategic alignment (SA) practices (see Table 1).

The test statistic was significant ( $F_{(1, 79)} = 403.926$ ;  $p < 0.001$ ), showing that strategic alignment significantly and positively relates to information security governance risk management (see Table 2). Hence, the null hypothesis was not supported and should be rejected. As could be observed from Table 3, the higher the level of information security strategic alignment with business objectives, the higher the information security risk management ( $t(79) = 20.098$ ;  $p < .001$ ), suggesting that SA makes significant contribution to information security risk management.

**Table 1: Model Summary for Regression of ISG Risk Management on Strategic Alignment**

Model Summary <sup>b</sup>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
	.915 <sup>a</sup>	.836	.834	.48140

a. Predictors: (Constant), SA (Strategic Alignment)

b. Dependent Variable: RK (Risk Management)

**Table 2: ANOVA (RK) for Regression of ISG Risk Management on Strategic Alignment.**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	93.610	1	93.610	403.926	.000 <sup>a</sup>
	Residual	18.308	79	.232		
	Total	111.918	80			

a. Predictors: (Constant), SA

b. Dependent Variable: RK

**Table 3: Coefficients for Regression Model of ISG Risk Management on Strategic Alignment.**

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	t	
1	(Constant)	-.061	.158		-.385	.701
	SA	.953	.047	.915	20.098	.000

a. Dependent Variable: RK (Risk Management)

## Strategic Alignment and Value Delivery - Testing of Hypothesis 2

To determine the proportion of the variance in the value information security delivers to Ghanaian organizations explained by the strategic alignment practices, a simple linear regression analysis was performed. The mean score on the information security value delivery was 3.15 (N = 81; SD = 1.13) and the mean score on the information security strategic alignment was 3.14 (N = 81; SD = 1.14). The results indicated that 71.8% ( $R^2 = .718$ ) of the variance in ISG value delivery (VD) was explained by the strategic alignment (SA) practices (see Table 4).

Table 5 shows the test statistics ( $F_{(1, 79)} = 200.998$ ;  $p < 0.001$ ), indicating that strategic alignment significantly and positively relates to information security governance value delivery. Hence, the null hypothesis was not supported and should be rejected. Table 6 reveals that the higher the level of strategic alignment practices, the higher business value information security delivers to the organization ( $t_{(79)} = 14.177$ ;  $p < .001$ ), indicating that SA makes significant contribution to the model (information security value delivery).

**Table 4: Model Summary for Regression of ISG Value Delivery on Strategic Alignment.**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.847 <sup>a</sup>	.718	.714	.60505

a. Predictors: (Constant), SA (Strategic Alignment)

b. Dependent Variable: VD (Value Delivery)

**Table 5: ANOVA for Regression of ISG Value Delivery on Strategic Alignment.**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	73.581	1	73.581	200.998	.000 <sup>a</sup>
	Residual	28.920	79	.366		
	Total	102.502	80			

a. Predictors: (Constant), SA (Strategic Alignment)

b. Dependent Variable: VD (Value Delivery)

**Table 6: Coefficients for Regression Model of ISG Value Delivery on Strategic Alignment.**

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	t	
1	(Constant)	.499	.199		2.508	.014
	SA	.845	.060	.847	14.177	.000

a. Dependent Variable: VD ( Value Delivery)

### Strategic Alignment and Performance Measurement - Testing of Hypothesis 3

A simple linear regression analysis was conducted to determine the proportion of the variance in the performance measurement that is explained by the strategic alignment practices. The mean score on the information security performance measurement practices was 2.85 (N = 81; SD = 1.32) and the mean score on the information security governance strategic alignment was 3.14 (N = 81; SD = 1.14). The results indicated that 72.2% of the variance in PM was explained by the SA (see Table 7).

The test statistic was significant ( $F_{(1, 79)} = 204.771$ ;  $p < 0.001$ ), showing that strategic alignment significantly and positively relates to information security governance performance measurement (see Table 8). Consequently, the null hypothesis was not supported and would be rejected. Table 9 shows that the higher the level of strategic alignment, the higher the effectiveness of information security governance performance measurement ( $t(79) = 14.310$ ;  $p < .001$ ), revealing that SA has made significant contribution to the model (information security performance measurement).

**Table 7: Model Summary for Regression of ISG Performance Measurement on Strategic Alignment.**

Model Summary <sup>b</sup>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.849 <sup>a</sup>	.722	.718	.70172
a. Predictors: (Constant), SA (Strategic Alignment)				
b. Dependent Variable: PM (Performance Management)				

**Table 8: ANOVA for Regression of ISG Performance Measurement on Strategic Alignment.**

ANOVA <sup>b</sup>						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	100.832	1	100.832	204.771	.000 <sup>a</sup>
	Residual	38.901	79	.492		
	Total	139.733	80			

a. Predictors: (Constant), SA (Strategic Alignment)

b. Dependent Variable: PM (performance Measurement)

**Table 9: Coefficients for Regression Model of ISG Performance Measurement on Strategic Alignment.**

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	t	
1	(Constant)	-.252	.231		-1.093	.278
	SA	.989	.069	.849	14.310	.000

a. Dependent Variable: PM (Performance Measurement)



## Strategic Alignment and Resource Management - Testing of Hypothesis 4

In order to determine the proportion of the variance in the resource management that is explained by the strategic alignment practices, a simple linear regression analysis was conducted. The mean score on the information security resource management practices was 2.92 (N = 81; SD = 1.20) and the mean score on the information security governance strategic alignment was 3.14 (N = 81; SD = 1.14). The results found that 74.7% ( $R^2 = .747$ ) of the variance in RM was explained by the SA practices (see Table 10).

The test statistic was significant ( $F_{(1, 79)} = 233.433$ ;  $p < 0.001$ ), showing that strategic alignment significantly and positively correlates with information security governance resource management (see Table 11). Therefore, the null hypothesis was not supported and was rejected. Table 12 reveals that the higher the level of strategic alignment practices, the higher the information security governance resource management ( $t(79) = 15.279$ ;  $p < .001$ ), suggesting that SA has made significant contribution to the model (information security resource management).

**Table 10: Model Summary for Regression of ISG Resource Management on Strategic Alignment.**

Model Summary <sup>b</sup>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.864 <sup>a</sup>	.747	.744	.60719

a. Predictors: (Constant), SA (Strategic Alignment)

b. Dependent Variable: RM (Risk Management)

**Table 11: ANOVA for Regression of ISG Resource Management on Strategic Alignment.**

ANOVA <sup>b</sup>						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	86.061	1	86.061	233.433	.000 <sup>a</sup>
	Residual	29.125	79	.369		
	Total	115.186	80			

a. Predictors: (Constant), SA(Strategic Alignment)

b. Dependent Variable: RM (Risk Management)

**Table 12: Coefficients for Regression Model of ISG Resource Management on Strategic Alignment.**

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.050	.200		.252	.802
	SA	.914	.060	.864	15.279	.000

a. Dependent Variable: RM(Risk Management)

## Summary and Discussion

The research questions and the associated research hypotheses empirically established the degree of relationship between strategic alignment and other information security governance domains: risk management, resource management, performance measurement, and value delivery. The null hypotheses stated that information security governance strategic alignment with business objectives was not positively related to information security governance domain areas. All the hypotheses were not supported and therefore rejected. The following discusses the extent of the relationship between the constructs, its implications and consistency with the earlier studies.

The relationships between information security governance strategic alignment and other domains were found to be positively statistically significant: strategic alignment to risk management ( $R^2 = .836$ ); strategic alignment to value delivery ( $R^2 = .718$ ), strategic alignment to performance measurement ( $R^2 = .722$ ), and strategic alignment to resource management ( $R^2 = .747$ ). The results highlighted consistent importance of information security/business strategic alignment as crucial for organizational information security risk management, performance measurement, resource management, and value delivery. This implies that effective information security governance strategic alignment greatly improves organizations' risk management, resource management, performance measurement, and delivers business value.

Confirming the relationships, Wilkin and Chenhall (2010) noted that strategic alignment determines the direction for other ISG domain areas. As such, with organization having SA in place, business value would be delivered. Value delivery comes as a result of effective investment and planning, including tactical plans for risk management and resource management. Again, the realization of ISG value to the organization is informed by coordinated performance measurement. Therefore, value delivery and risk management are regarded as outcomes depending upon sound practices in strategic alignment, performance measurement, and resource management (Wilkin and Chenhall, 2010).

This study is also consistent with previous studies that shown direct (positive) relationship between strategic alignment and risk management (Abu-Musa, 2010); strategic alignment and resource management (Hardy, 2006; Luftman and Kempaiah, 2008); strategic alignment and performance measurement (Tugas, 2010); and strategic alignment and value delivery (Johnston, 2009). Specifically, effective security governance involves strong support from executive management (Hu and Cooke, 2007; Risk IT, 2009) which should involve strategic planning (Oppliger, 2007), management practices and strategic implementation (Johnson and Hade, 2009). Effective security governance should be championed by CEO (chief executive officer) (Hu and Cooke, 2007) with clear and established CIO (chief information officer), CISO (chief information security officer), CEO responsibilities and reporting line.

## Conclusion

This study strongly supports the understanding that information security governance effectiveness could be realized through sound corporate governance theories (Carney 2005; Le Breton-Miller and Miller 2006) which are based on the (1) commitment of the organization's stakeholders with the purpose of aligning key stakeholders' interest with business objectives (stakeholder theory); (2) availability of resources with the aim of strategically manage resources and competencies to achieve organizational goals (resource-based view of organizational theory), and (3) the responsibility and accountability of the agents to ensure that performance through monitoring and measurement is efficient (agency theory) and effectively monitored in order to minimize risks.

It is important the boards of directors at the strategic level establish strong alignment between the business and information security with the aim of ensuring that security delivers business value through appropriate policies of risk management, resource management, and performance measurement. Therefore, organizations should improve strategic alignment attributes in order to attain

effective information security governance. Hence, more research is required as to how organizational leaders can improve strategic alignment between the business and information security

## References

- Abdullah, H. and Valentine, B. (2009), "Fundamental and ethics theories of corporate governance", *Middle Eastern Finance and Economics*, Vol. 4, pp. 88-96.
- Abu-Musa, A.A. (2010), "Information security governance in Saudi organizations: An empirical study", *Information Management and Computer Security*, Vol. 18 No. 4, pp. 226-276.
- Alchian, A. and Demsetz, H. (1972), "Production, information costs, and economic organization", *American Economic Review*, Vol. 62 No. 5, pp. 777-795.
- Allen, M. W., Armstrong, D. J., Reid, M. F. and Riemenschneider, C. K. (2008), "Factors impacting the perceived organizational support of IT employees", *Information & Management*, Vol. 45 No. 8, pp. 556-563.
- Allen, E. B. (2006), "Framing the framework: A review of IT governance research", *Communications of the Association for Information Systems*, Vol. 15, pp. 696-712.
- Ask, U., Bjornsson, H., Johansson, M., Magnusson, J., and Nilsson, A. (2007). IT Governance in the light of paradox - A social systems theory perspective. In Proceedings of the 40th Hawaii International Conference on System Sciences, IEEE. Big Island, Hawaii, pp. 3-6.
- Bernroider, E. W. N. (2008), "IT governance for enterprise resource planning supported by the DeLone-McLean model of information systems success", *Information & Management*, Vol. 45 No. 5, pp. 257-269.
- Berle, A. (1932), *The modern corporation and private property*. New York: Macmillan.
- Bihari, E. (2008), *Information security governance and boards of directors: Are they compatible?* Proceedings of the 6th Australian Information Security Management Conference, Edith Cowan University, Perth, Western Australia.
- Bonabeau, E. (2007), "Understanding and managing complexity risk", *MIT Sloan Management Review*, Vol. 48 No. 4, pp. 62-68.
- Carney, M. (2005), "Corporate governance and competitive advantage in family controlled firms", *Entrepreneurship Theory and Practice*, Vol. 29 No. 3, pp. 249-265.
- Ching, K. W., Tan, J.S. and Ching, C. R. G. (2006), "*Corporate governance in East Asia: The road ahead*", Prentice Hall Publication.
- Clarkson, M. B. E. (1995), "A stakeholder framework for analyzing and evaluating corporate social performance", *Academy of Management Review*, Vol. 20 No. 1, pp. 92-117.
- Coutaz, J., Crowley, J. L., Dobson, S. and Garlan, D. (2005), "Content is key", *Communications of the ACM*, Vol. 48 No. 3, pp. 49-53.
- Daily, C.M., Dalton, D.R. and Canella, A.A. (2003), "Corporate governance: Decades of dialogue and data", *Academy of Management Review*, Vol. 28 No. 3, pp. 371-382.
- De Haes, S. and A. H. an Grembergen, W. (2009), "An Exploratory Study into IT governance implementations and its impact on business/IT alignment", *Information Systems Management*, Vol. 26 No. 2, pp. 123-137.
- De Haes, S., and Van Grembergen, W. (2009), "Exploring the relationship between IT governance practices and business/IT alignment through extreme case analysis in Belgian mid-to-large size financial enterprises", *Journal of Enterprise Information Management*, Vol. 22 No. 5, pp. 615-637.
- Donaldson, T. and Preston, L.E. (1995), "The stakeholder theory of the corporation: Concepts, evidence and implications", *Academy of Management Review*, Vol. 20 No. 1, pp. 65-91.
- Educause (2006), "Information security governance assessment tool", available at <http://www.educause.org> (accessed 12 October, 2012).
- El-Meligy, H. (2011), "*IT governance, security and safety in developing countries*", available at: <http://www.isaca.org> (accessed 5 November 2012).
- Eisenhardt, K. M. (1989), "Agency theory: An assessment and review", *Academy of Management Review*, Vol. 14 No. 1, pp. 57-74.

- Fama, E. F. and Jensen, M. C. (1983), "Separation of ownership and control", *Journal of Law and Economics*, Vol. 26, pp. 301-326.
- Gellings, C. (2007), "Outsourcings relationships: The contract as IT governance tool". *Proceedings of the 40th Hawaii International Conference on System Sciences, IEEE*. Big Island, Hawaii, pp. 3-6.
- Gregor, S., Martin, M., Fernandez, W., Stern, S. and Vitale, M. (2006), "The transformational dimension in the realization of business value from information technology", *The Journal of Strategic Information Systems*, Vol. 15 No. 3, pp. 249-270.
- Grover, V., R. M. and Segars, A. H. (2005), "An empirical evaluation of stages of strategic information systems planning: Patterns of process design and effectiveness", *Information & Management*, Vol. 42 No. 5, pp. 761-779.
- Habbershon, T. G. and Wouldiams, M. L. (1999), "A resource-based framework for assessing the strategic advantages of family firms", *Family Business Review*, Vol. 12 No. 1, pp. 1-25.
- Hardy, G. (2006), "Using IT governance and COBIT to deliver value with IT and respond to legal, regulatory and compliance challenges", *Information Security Technical Report*, Vol. 11 No. 1, pp. 55-61
- Harris, M. and Raviv, A. (1979), "Some results on incentive contracts with application to education and employment, health insurance, and law enforcement", *American Economic Review*, Vol. 68, pp. 20-30.
- Hillman, A.J., Canella, A.A. and Paetzold, R.L. (2000), "The resource dependency role of corporate directors: Strategic adaptation of board composition in response to environmental change", *Journal of Management Studies*, Vol. 37 No. 2, pp. 235-255.
- Hu, Q. P. H. and Cooke, D. (2007), "The role of external and internal influences on information systems security - A neo-institutional perspective", *The Journal of Strategic Information Systems*, Vol. 16 No. 2, pp. 153-172.
- Idris, F., Abdullah, M., Idris, M. A. and Hussain, N. (2003), "Interacting resource-based view and the stakeholder theory in developing the Malaysian excellence model: A conceptual model", *Singapore Management Review*, Vol. 25 No. 2, pp.91-109.
- ITGI (2006). *Information security governance: Guidance for boards of directors and executive management* (2<sup>nd</sup> ed.), available at [www.itgi.org](http://www.itgi.org) (accessed 7 January 2013).
- ITGI (2008), *Information security governance: Guidance for information security managers*, available at [www.itgi.org](http://www.itgi.org) (accessed 7 January 2013).
- Jensen, M.C. and Meckling, W. (1976), "Theory of the firm: Managerial behavior, agency costs and ownership structure", *Journal of Financial Economics*, Vol. 3, pp. 305-360.
- Johnston, A. C., and Hale, R. (2009), "Improved security through information security governance", *Communications of the ACM*, Vol. 52 No. 1, pp. 126-129.
- Kelly, K., Clark, B., Brown, V. and Sitzia, J. (2003), "Good practices in the conduct and reporting of survey research", *International Journal of Quality in Health Care*, Vol. 15 No. 3, pp. 261-266.
- Kobelsky, K., Hunter, S. and Richardson, V. J. (2008), "Information technology, contextual factors and the volatility of firm performance", *International Journal of Accounting Information Systems*, Vol. 9 No. 3, pp. 154-174.
- Le Breton-Miller, I. and Miller, D. (2006), "Why do some businesses out-compete? Governance, long-term orientations, and sustainable capability?", *Entrepreneurship: Theory and Practice*, pp. 731-746.
- Luftman, J. N. and Kempaiah, R. (2008), "Key Issues for IT executives 2007", *MIS Quarterly Executive*, Vol. 7 No. 2, pp. 99-112.
- Maronick, T. (2009). "The role of the internet in survey research: Guidelines for researchers and experts", *Journal of Global Business and Technology*, Vol. 5 No. 1, pp. 22.
- Moghdeb, F. B., Indulska, M. and Green, P. (2007), "Business process improvement and organizational theory - the missing link", *Managing Worldwide Operations & Communications with Information Technology*, pp. 253-256.
- Neirotti, P. and Paolucci, E. (2007), "Assessing the strategic value of information technology: An analysis on the insurance sector", *Information & Management*, Vol. 44 No. 6, pp. 568-582.
- Nunnally, J. C. (1978), *Psychometric theory* (2nd ed.). New York: McGraw-Hill.

- Oppliger, R. (2007), "IT security: In search of the holy grail", *Communications of the ACM*, Vol. 50 No. 2, pp. 96–98.
- Padilla, A. (2002), "Can agency theory justify the regulation of insider trading", *The Quarterly Journal of Austrian Economics*, Vol.5 No.1, pp. 3-38.
- Pinsonneault, A., and Kraemer, K. L. (1992). *Survey research methodology in management information systems: An assessment*. Unpublished manuscript, Graduate School of Management, University of California, Irvine, California.
- Posthumus, S., von Solms, R. and King, M. (2010), "The board and IT governance: The what, who, and how", *South African Journal of Business Management*, Vol. 41 Vol. 3.
- Prybutok, V. R., Zhang, X. and Ryan, S. D. (2008), "Evaluating leadership, IT quality, and net benefits in an e-government environment", *Information & Management*, Vol. 45 No. 3, pp. 143-152.
- Risk IT. (2009), "Enterprise risk: Identify, govern and manage IT risk", available at <http://www.isaca.org> (accessed 10 January 2013).
- Rungtusanathan, M. J., Choi, T. Y., Hollingworth, D. G., Wu, Z. and Forza, C. (2003), "Survey research in operations management: Historical analysis", *Journal of Operations Management*, Vol. 21, pp. 475-488.
- Silva, L. and Hirschheim, R. (2007), "Fighting against windmills: Strategic information systems and organizational deep structures", *Management Information Systems Quarterly*, Vol. 31 No. 2, pp.327-354.
- Sundaram, A.K. and Inkpen, A.C. (2004), "The corporate objective revisited", *Organization Science*, Vol. 15 No. 3, pp. 350-363.
- Tassabehji, R. (2005), *Information security threats: From evolution to prominence*. In Encyclopedia of Multimedia Technology and Networking (Margherita Pagani), Idea Group Inc., ISBN: 1-59140-496-6, pp. 404-410
- Thomas, R. J., Schrage, M., Bellin, J. B. and Marcotte, G. (2009), "How boards can be better - A manifesto" *MIT Sloan Management Review*, Vol. 50 No. 2, pp. 69–74.
- Tugas, F.C. (2009), "Assessing the level of information technology (IT) processes performance and capability maturity in the Philippine food, beverage, and tobacco (FBT) industry using the COBIT framework", *Information and Management Sciences*, Vol. 13 No. 2, pp. 68-73.
- Valiris, G. and Glykas, M. (2004), "Business analysis metrics for business process redesign", *Business Process Management*, Vol. 10 No. 4, pp. 445-480.
- Val IT. (2008), "Enterprise value: Governance of IT investments- the Val IT framework 2.0", available at <http://www.isaca.org/valit/> (accessed 10 January 2013).
- Von Solms, B. (2006), "Information security – The fourth wave", *Computers & Security*, Vol. 25, pp. 165- 168.
- Walsham, G. (1995). *Interpreting Information Systems*. Chichester, John Wiley & Sons.
- Wang, L. and Alam, P. (2007), "Information technology capability: Firm valuation, earnings uncertainty, and forecast accuracy", *Journal of Information Systems*, Vol. 21 No. 2, pp. 27-48.
- Wilkin, C. L. and Chenhall, R. H. (2010), "A review of IT governance: A taxonomy to inform accounting information systems", *Journal of Information Systems*, Vol. 24 No. 2, pp. 107-146.
- Wouldson , P. P. and Pollard, C. E. (2009), "Exploring IT governance in theory and practice in a large multi-national organizations in Australia", *Information Systems Management*, Vol. 26, pp. 98-109.
- Yu, E. and Mylopoulos, J. (1994), "Using goals, rules, and method to support reasoning in business process reengineering", *Paper presented at the 14th Hawaii International Conference on Systems Science*, San Diego, CA.

# Culture, Values and Integrity in Contemporary Society

Michael Willoughby Small

---

## Abstract

*Comments in the Australian press and the media have suggested that all is not well within certain sections of Australian society. This view was publicised by comments of the Chief of the Australian Army, who had stated in vigorous terms that he intends to change the culture in the Army. Changing the culture of any organisation is difficult, slow and time consuming, and so in an endeavour to facilitate this process, it is argued that some thought might be given to studying some of the classical writers who were faced with similar problems thus illustrating the relevance and timeliness of their ideas.*

In June 2013, the Chief of the Australian Army, stated in the strongest possible terms, in a telecast and then subsequently reported in *The Australian Financial Review* (Morrison, 2013) that the moral behaviour and the culture within sections of the Army were unacceptable. The purpose of this paper, therefore, is to look at terms such as morality, moral courage (as opposed to physical courage), integrity and duty which had been developed in earlier times, and see if these thoughts and ideas (which some claim are still relevant and timeless in this day and age) are applicable to the culture and behaviour of a modern Australia. The reason for addressing this topic is partly in response to media reports about moral behaviour in the Army, but mainly, it is in response to the comments that the Chief of Army made in relation to his troops having 'the integrity and the moral courage' to challenge questionable behaviour and culture within the Army.

Morality is a term which refers to the quality of being moral. It is used to define those practices and activities that are considered right and wrong; and can be related to conduct and character considered good or evil. Morality applies to the rules that govern those activities; and the values that are embedded and fostered by those activities and practices. Morality is also concerned with our judgements of what is right and wrong and what is good and bad. Moral judgements in respect to the rightness or wrongness of an action are held to be universally applicable and important, and moral blame can accompany acting immorally (De George, 2006, p. 37). Moral courage, as opposed to physical courage, is different. The term can be used in relation to people who have the fortitude or the resilience to face disapprobation or simply disapproval, ridicule, derision and mockery, particularly from members of their own community. Moral courage is one of the terms that the Chief of Army had in mind when he made his telecast about inappropriate behaviour within certain sections of the present day Army.

Many practices are taking place within the broader Australian society, practices which can only be described as questionable if not immoral. We see politicians from all sides of the political fence, officials both high and low, and people with access to expense accounts making claims on the public

Copyright © 2014 Victoria University. This document has been published as part of the Journal of Business Systems, Governance and Ethics in both online and print formats. Educational and non-profit institutions are granted a non-exclusive licence to utilise this document in whole or in part for personal or classroom use without fee, provided that correct attribution and citation are made and this copyright statement is reproduced. Any other usage is prohibited without the express permission of the publisher.

purse. We see footballers taking prohibited substances to give themselves an advantage and those most responsible taking every possible legal avenue in their attempts to escape responsibility; we see investors with inside knowledge trading on the stock market and business persons engaging in fraud and corruption. It seems this litany of indiscretions, even corrupt and immoral

behaviour, is simply endless and unstoppable despite the efforts of those advocating an ethical approach in their business dealings. Business ethics today is possibly a lost cause. Consider the number of business schools which quote the starting salaries of graduates as evidence of their effectiveness when producing MBA's. No longer does ethics rule the world of business, if it ever did, but today the 'dollar' rules. In addition to the examples mentioned above, there is a minority within the Army who have been behaving in inappropriate and unacceptable ways.

Issues that involve morality, moral courage, integrity, duty and conduct relating to making the right decisions have been around for a long time. Cicero wrote some fatherly advice to his twenty-one year old son, Marcus, who had been in command of a cavalry squadron under Pompey, and who was supposed to be studying at a university in Athens-only he wasn't. The advice was eventually published as *De Officiis i.e. On Duties* (Cicero, trans. Walter Miller, 2005). This was Cicero's last work on moral philosophy completed in November 44 BC. That these qualities are still making news today suggests that ideas developed, discussed and written about two or three thousand years ago remain relevant. Cicero, the lawyer and politician, concerned himself with and wrote about topics such as wisdom, moral virtue, moral duty, moral propriety and moral rectitude. Julius Caesar and Thucydides also come to mind. Caesar was a highly successful soldier/general, writer of military despatches (but not much of a politician) and then dictator; and Thucydides, author of *The Peloponnesian War*; wrote about the war between Athens, the democratic sea power, and Sparta, the land based military super power.

The Chief of Army had stated in very strong language that the moral behaviour and culture in sections of the Army were unacceptable. He was reported as saying that if his troops did not respect the cultural values and the ethical standards that were expected of them, they should find other employment. He stated 'if that does not suit you, then get out, the standard you walk past is the standard you accept'. He continued saying that the troops were the custodians of the culture of their organisation, and if they encountered unacceptable and outrageous behaviour they should show moral courage and take a stand against it. The Chief of Army expected his troops to do the right thing, because it was the right thing to do, and if they were not up to it, then those persons should do something else with their lives. This was forceful language indeed about integrity, culture, values and ethical standards in the present day Australian army.

Two earlier case studies (Small and Minkes 2010) involved members of the Australian Defence Force (ADF); one involving HMAS *Stirling* Fleet Base West, submarine base and shore establishment of the Royal Australian Navy RAN; and the other examining the values, culture and training methods of the Special Air Service (SAS), Swanbourne, Western Australia.

In the first case study, the Navy's approach to ethical and moral behaviour in a military environment was examined. The situation that had brought about this study was not the same as the current situation within the Army. One reason for this study arose from a number of fatalities and the subsequent media publicity which had given an unfortunate impression of the RAN. The time therefore seemed appropriate to initiate a study into human resource policies and practices in the RAN.

Senior officers had described, in a series of personal discussions and interviews over a period of several weeks, a culture of 'social responsibility' and a sense of 'social awareness' that were evident among all personnel. This was extended to the ecology and the natural environment in which the base was situated. It was emphasised that both the Department of Defence and the Navy had an ongoing interest in the on-going pursuit of ethics and justice in a military environment. To illustrate, a professional reference library had been established with titles such as: 'Military Ethics and Professionalism: A Collection of Essays'; 'True Faith and Allegiance: The Burden of Military Ethics'; and 'Ethics and the Military Community'. In addition, Defence publications were available on a range of ethical issues e.g. 'Personal Rights'; 'Why all the Fuss about Ethics?'; 'The Whistle Blower-the Ethical Dilemma'; 'Codes of Conduct'; 'What has Ethics got to do with Defence?' and so on. Other journal articles covered subjects such as an explanation of 'natural law'; a discussion of Pope Paul VI's

encyclical *Humanae Vitae*; and a collection of works in the fields of justice and ethics by well known writers in the area. Defence, as the co-ordinating government department overseeing the nation's defence assets, has coined the mnemonic *implicit*. This becomes meaningful if written as *imPLICIT* (*i.e.* professionalism, loyalty, innovation, courage, integrity and team work).

To emphasise this point, the Chief of Navy had stated in his mission statement (Australian Department of Defence, 2002):

Our values guide us how we will behave, how we will treat each other, what is important and what bonds us together. Values are our source of strength; they are the source of moral courage to take action.

The Navy while recognising the values that Defence had developed and promoted, had devised a set of its own based on the letters HHCIL (honour, honesty, courage, integrity and loyalty). When discussing these values, senior officers stated that HMAS *Stirling* wanted a value of its own so it made one up *viz. esprit de corps*. While not strictly a value, it did seem to be appropriate for the submarine service. In addition, the Navy uses the divisional system in caring for its personnel, a system which has been in place for many years in Royal Navies and has been likened to the 'house or form master' system. The Navy's position as outlined by the Commanding Officer, HMAS *Stirling*, in informal discussions, was that 'each member of the divisional chain of command is required to maintain a values-based approach to both professional and personal behaviour and ethics'. In earlier days when warships had large crews, the ships' complements were divided into divisions *e.g.* seaman, engine-room artificers and young sailors. Each division was the responsibility of a divisional officer who was available for advice or counselling. Sometimes chaplains undertook this role.

In the other case study the values, culture and training methods of the SAS based at Swanbourne, Western Australia were studied. While the mnemonic *imPLICIT* referred to above was acknowledged, the unit spokesman insisted on pointing out that the SAS had a set of values of its own *viz.* the relentless pursuit of excellence, a classless sense of family, discipline, primacy of operational capability, humility, a sense of humour, loyalty and respect for absent mates. The spokesman stressed that these values were vigorously encouraged and pursued. In terms of organisational culture, knowledge of and familiarisation with the unit's culture were embedded in new members during the crucial initial training period. Living strictly according to the unit's code of ethics, and demonstrating judgement and humility were looked for in an individual seeking admission to this unit. Potential members were often required to operate in culturally diverse environments, and so the characteristics referred to above were thought to be very important. In terms of practical relevance, the unit demonstrates its capability as a highly trained and specialised army unit when engaging in its primary role on operations.

## Relevance of Earlier Thinking on Key Concepts to Current Issues

Comments about issues such as those reported above, such as integrity, moral behaviour and moral courage have their base in ideas and writings originating in Greco-Roman times. It could be argued, therefore, that some familiarity with themes from these early sources could be justified when planning courses to address moral issues for soldiers in the present-day Army. Nobody could expect young soldiers to spend their time reading the works of Cicero or Plato, but as their writings have influenced our thinking on moral issues today we might reasonably expect that members of the ADF would be presented with a selection of the thoughts and ideas of these early figures whether in the initial training periods at officer-cadet level or in basic recruit training.

Plato, Aristotle and Cicero are probably the most well known of the early philosophers, but there were others *e.g.* Panaetius, Hecaton, Seneca and Plutarch, who had made significant contributions to developing a body of knowledge relating to integrity, duty and moral issues. Their ideas could be incorporated into a program on leadership and moral behaviour similar to programs run in UK, US and Canadian military training establishments. They could also add to the already existing programs in leadership programs.



## The Concept of Duty Then and Now

Duty is defined here as that which is due, or what one is bound to do by any moral obligation. Duty as an idea or concept featured heavily in ancient Greece, and appears in the works of early Greek writers, one of whom was Panaetius. He was a Stoic philosopher from the island of Rhodes, and the author of a three volume text entitled 'On the theory of Moral Obligation', in other words, doing one's duty, a work upon which Cicero based his *De Officiis*, (Smith and Marindin 1989, p.426). This title itself, 'On Duties', could be the basis of a course on the 'Meaning of Duty' dating from earliest times in Western Europe. Prime Minister Abbott (2013) referred to duty when addressing Australian troops in Tarin Kot, Afghanistan. The PM spoke about the 'bittersweet' ending of the war and added: 'Our armed forces and our officials have done their duty. That duty never ends, although our duty here has'. This item was flagged by the headline 'Duty of War'. So 'Duty' and 'doing the right thing' are significant, not only in ancient times, but also to-day.

Cicero (*Cicero*, trans. Walter Miller, 2005) the lawyer and politician, took a legalistic and philosophical approach. He wrote that we should distinguish between two types of duty (mean *i.e.* ordinary duty and absolute *i.e.* what is right). He referred to Panaetius who would ask (himself) questions such as: 'Is a contemplated act morally right or wrong?' 'Is it advantageous or disadvantageous?' 'If apparent right and apparent advantage clash, what is to be the basis for our choice between them?'

Caesar was the soldier/general who spoke and wrote about values such as 'honour, duty and cowardice' (*Caesar*, trans. H.J.Edwardes, 1986) Hecaton, a student of Panaetius, also produced a text 'On Duties' written for the consul Quintus Tubero. Panaetius and Hecaton influenced the writings of Cicero and Seneca. Their works, produced much later, contain references to Panaetius and Hecaton. Cicero's (*Cicero*, trans, Miller, 2005) views on moral duty, in 44 BC, are still relevant in the 21<sup>st</sup> century. Here Cicero is repeating, in part, what Hecaton of Rhodes (*Cicero*, trans. Walter Miller, page 333 or Book III, 63, 2005) had said about moral duty. This whole section is highly relevant and commences as follows:

it is a wise man's duty to take care of his private interests, at the same time doing nothing contrary to the civil customs, laws, and institutions.

Cicero (*ibid*) completed 'On Duty' in November 44 BC. It contained advice outlining principles of moral duty and practical rules for personal conduct. As noted above, it was written especially for his son, Marcus, who was supposed to be studying in Athens. Cicero focused on the four cardinal virtues *i.e.* wisdom, justice, fortitude and temperance and the duties that stemmed from these virtues. He spelt out how he expected 'a wise man' to behave in public and in private. For example, it could be argued that everybody has a duty to take care of his/her private interests, but as Cicero pointed out ('at the same time do nothing contrary to the civil customs, laws, and institutions' (*Cicero*, trans. Walter Miller, page 333 or Book III, 63, 2005). The key section is 'do nothing contrary to the civil customs, laws, and institutions'.

Some behaviour, both in the wider community and in the Army, is 'contrary to the civil customs, laws, and institutions', and therefore as the Chief of Army has argued such behaviour must be managed more effectively. As an example, there was the case, 23 October 2013, involving the behaviour of officer-cadets at the Defence Academy. The decision of the Court, was to award 'Good Behaviour Bonds' with the final decision (termination) being announced in the media, 8 November 2013. This was followed by another media release, 8 November 2013, of an incident on HMAS *Ballarat*, which suggested that a case could be justified in both instances (thus following Seneca's ideas of philosophic self-scrutiny focussed on knowing oneself) to discuss and reflect upon the meaning of duty.

Seneca was Nero's tutor and later his advisor. He had strong views on duty, which at that time was courageous. He lived in a volatile and tumultuous period and eventually incurring Nero's displeasure

he was ordered to commit suicide. Seneca, following his teacher Sotion, is reputed to have favoured the practice of philosophic self-scrutiny. This was similar to an examination of conscience in Christian terms. It was originally a Pythagorean idea, and something to which both Cicero and Seneca subscribed. A person would ask himself the following questions every night before sleep (Seneca trans. Basore, p. 107 ff., 1928a):

What bad habit have you cured today? What moral fault have you resisted? In what respect are you better?

He wrote thirteen 'Treatises/Dialogues' and 124 letters on ethical issues (Seneca, trans. Basore 1928a). In one composition he played the part of the dutiful son advocating strong family values. In another, he mused about the mind and how to cope with the pressures of daily living. In a third, Seneca emphasised the value of time and the fact that life is short. In another essay, he wrote that: 'life's tribulations must be endured with fortitude'. In the dialogue about anger, Seneca described the difference between anger and irascibility, between being drunk and being a drunkard, and the difference between being frightened and being a coward. These comments and the lessons contained with them could be applied to some behaviour in today's society.

The Chief of Army has promised that there will be changes in the culture of the Army, but changing an organisation's culture is difficult, challenging and slow. It requires a different mindset to the one existing at the present time. In subsequent developments, the Army announced that it had identified six officers and NCOs who were identified as the leaders of the 'Jedi Council' pornography network (The Weekend Australian, 2013). Other personnel are also involved and twelve officers are facing dismissal or disciplinary action. The same item also included a report that a total of 2,400 complaints of sexual and other abuse had been received going back to the 1950s. Managing this type of behaviour in an organisation as complex as an army whose members are physically fit, intelligent and young will be a challenge for those responsible for the total well-being of the organisation.

What conclusions can be drawn from this brief look at of some of the issues and problems relating to 'moral courage, integrity and duty' within the present day Army and by implication the broader Australian society? The Chief of Army has stated that he wants to rectify a difficult situation in respect to the culture and personal behaviour as practised within the Army. The thoughts and writings of a few bygone philosophers are not going to bring about an immediate change in the culture of an organisation, but reflecting on and discussing ideas which were first articulated two thousand years ago may lead to an understanding of moral issues that have been talked about for more than two thousand years.

## Conclusion

To conclude, the main points are that issues relating to concepts such as morality, moral courage, integrity and duty are important and should be taken seriously. If not dealt with in a timely and appropriate manner, unintended consequences may arise. Questions that Panaetius and Seneca asked: 'Is a contemplated act morally right or wrong?' or 'What moral fault have you resisted?' and 'In what respect are you better?' are relevant and significant. They could become embedded in programs in business, management, medicine in addition to the armed forces. Understanding the meaning of 'duty and moral duty' is as relevant and important today as it was in ancient times, probably even more so. These areas should be included in leadership programs for students of all ages and in all areas of endeavour.

## References

- Abbott, T. 2013, *The Australian Financial Review*, 30 October, p. 1.
- Australian Department of Defence, 2002 Navy, Mission Statement 2001-2002. Canberra, Department of Defence.
- Caesar, 1986, *The Gallic War*, with an English translation by H. J. Edwardes, The Loeb Classical Library, Cambridge, Mass: Harvard University Press.
- Cicero, 2005, *Cicero De Officiis, On Duty*, XXI, with an English translation by Walter Miller, The Loeb Classical Library, Cambridge, Mass: Harvard University Press.
- De George, R. T. 2006, *Business Ethics*, 6<sup>th</sup> ed., Pearson Prentice Hall, New Jersey, pp. 19, 37.
- Morrison, D. 2013, 'What I know now', *The Australian Financial Review, Boss Magazine*, November, Volume 14, p. 58.
- Seneca, 1928a. *Moral Essays* with an English translation by John W. Basore, in Three Volumes, London: William Heinemann Ltd.
- Seneca, *Epistulae Morales I*, 1928b. with an English translation by R. M. Gummere, London: William Heinemann Ltd.
- Small, M.W. and L. Minkes, 2010, 'On the nature of learning communities: a study of four organisations', *The Journal of Management Development*, Volume 29, No. 9, pp. 783-794.
- Smith, W. and Marindin, G.E 1898, *A Smaller Classical Dictionary of Biography, Mythology, and Geography*, 28<sup>th</sup> Impression, John Murray, Albemarle Street, London, p. 426.
- The Weekend Australian 2013, 'Jedi Council' pornography network, November 16-17, p. 3



