

TRANSPARENT BLUE SKIES FOR THE GLOBAL AIRLINE INDUSTRY: A STUDY OF KEY ACCOUNTING DISCLOSURES

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Abstract

This cross-sectional accounting study focused on voluntary environmental and social accounting disclosure (VESAD) provided by public listed airline companies from a global perspective using stakeholder theory. The study empirically examined the factors that influence voluntary environmental and social accounting disclosure (VESAD) in the financial, non-financial sections and the annual report as a whole of airline companies. The paper concludes that airlines in an alliance arrangement and with greater government ownership provided greater VESAD in the financial section. In contrast, the larger the company and the quicker the annual report is issued, the greater is the VESAD in the non-financial section and the annual report as a whole.

Overview of airline industry

The airline industry, one of the largest global industries, with operating profits of US \$9 billion on revenue of US \$301 billion in 2000 (IATA 2001) is one that has experienced rapid growth since the first airline operation in 1903 (ATA 2001; Straszheim 1969). It is an industry that has grown rapidly (Straszheim 1969). In 1986, airline companies transported approximately 960 million passengers and by 1999, the number of passengers increased to 1.6 billion (Yergin, Vietor, & Evans 2000).

The airline industry is unique, with a high rate of growth accompanied by low levels of profitability (OECD 1988; Hanlon 1996). Profitability of the industry has been

marginal, with some airlines experiencing a net loss (especially since the 2001 September 11 tragedy), attributed to high operating costs towards wages, jet fuel, maintenance and depreciation expenses (Straszheim 1969; OECD 1988). Furthermore, it is an industry which is dependent upon costly forms of technology and has a political and strategic importance, such as war preparation and the politics of expansionism (Lyth 1996).

Voluntary disclosures and VESAD

Voluntary disclosures are defined as 'disclosures in excess of requirements [and] represent free choices on the part of company management to provide accounting and other information deemed relevant to the decision needs of users of their annual reports' (Meek, Roberts and Gray 1995, p. 555). VESAD is defined by Matthews and Perera (1995, p. 364) as 'an extension of disclosure into non-traditional areas such as providing information about employees, products, community service and the prevention or reduction of pollution.' Therefore, VESAD is a subset of voluntary disclosure.

This study encompasses the five main themes of VESAD: environment, employees, health and safety, community and energy, consistent with Guthrie and Parker (1989), Gray, Kouhy and Lavers (1995a and 1995b), and Williams (1999).

The research question explored in this study is: What are the factors that influence VESAD practices in annual reports of global airline companies?

Background and theoretical framework

The airline industry faces many challenges; especially in the five aforementioned VESAD areas. One of its major concerns

relates to its environmental impact, for example, air pollution, noise control, recycling, and ozone layer depletion. The airline industry is labour intensive with more than one-third of revenue generated going to pay its workforce; the labour cost per employee is the highest of any industry (IATA 2000).

Recently, health issues are of growing concern, especially in relation to deep vein thrombosis (DVT) and the risk associated flying (IATA 2001b). Safety is another fundamental issue in the airline industry and is the prime objective of the International Air Transport Association (IATA). The IATA Safety Committee developed a safety strategy, *Safety Strategy 2000+*, to ensure there are continuous improvements in safety within the global airline industry (IATA 2001c). One other issue of concern related to the energy efficiency of the industry. The large upward trend in global fuel prices represents a major cost challenge for airline companies. Fuel cost was the largest single cost item for the industry in 2006. Fuel prices have increased by approximately 136%, the average price of jet fuel per barrel rising from US\$34.7 in 2003 to US\$81.9 in 2006, putting pressure on airlines to be more energy efficient (IATA 2007).

As issues such as pollution, resource depletion, product quality and safety attract increasing attention of stakeholder groups (Gray, Owen, and Maunders 1987), corporations are being held accountable to a wider audience who require disclosure on broader issues such as VESAD information, not just profit figures (Hackston and Milne 1996; Williams 1998). Therefore, VESAD disclosure would enhance the credibility of airlines and increase accountability to various stakeholder groups and maintain sustainability within the industry. Higher levels of disclosure may assist investors in interpreting the airlines' economic prospects therein making the capital allocation process

more efficient and reducing the cost of capital (FASB 2001).

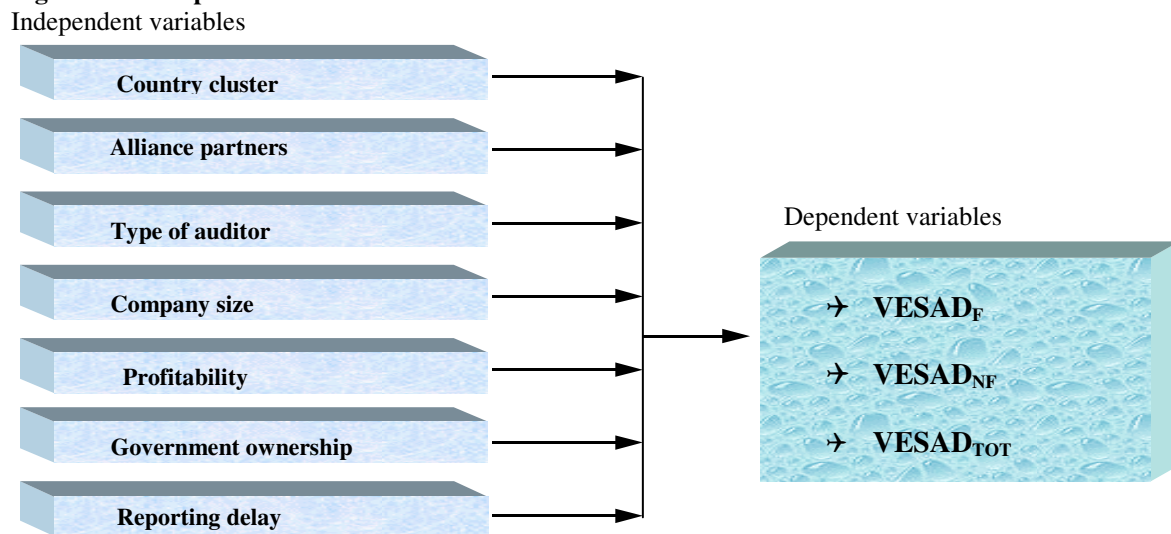
This study empirically examines the ability of stakeholder theory to explain the extent of VESAD practices of airline companies consistent with Gray, Kouhy & Lavers (1995a), Roberts (1992), Kusumo, Towers, Williams & Taplin (1999) and Purushothaman, Tower, Hancock & Taplin (2000). Stakeholder theory is 'explicitly bourgeois in that the world is seen from the perspective of the management of the organisation who are concerned strategically with the continued success of the company' (Gray, Kouhy & Lavers 1995a, p. 53). This theory is used in defining the objectives of the organisation, which includes meeting the demands of various stakeholders (Roberts 1992). Stakeholders of a company are defined as 'any individuals or groups having an interest in the company because they can affect and/or be affected by the company's activities' (Freeman 1984, p. 41).

Literature review

A common predictor variable, company size, consistently examined in past literature (Cowen, Ferreri and Parker 1987; Cooke 1991; Hossain, Perera and Rahman 1995; Meek, Roberts & Gray 1995; Hackston and Milne 1996; Williams 1999) is included in this study together with variables of alliance partners, country cluster, type of auditor, profitability, government ownership and reporting delay.

This study, as depicted in Figure 1 (below), tests the determinants of the seven independent variables and the effect on VESAD within the financial, non-financial sections and the annual report as a whole of airline companies. The VESAD measure comprises an aggregation of VESAD themes of environment, employee, health and safety, community and energy. For the VESAD dependent variables, a set of seven general testable hypotheses are proposed.

Figure 1: Conceptual schema - Extent of VESAD



Country cluster

Past studies suggest that the country within which the company reports will affect the contents of its annual report (see for example Guthrie and Parker 1990; Meek, Roberts & Gray 1995; Craig and Diga 1998; Tan, Tower, Hancock & Taplin 2002). However, due to the small cell sizes, country cluster is used in this study as the proxy variable as opposed to country of origin. Nobes' (1998) and Nobes and Parker's (2000) classification systems are used to group the countries examined in this study into two main classes namely, Class A and B based on the dominant accounting systems in each country. To be classified into Class A, countries need to have strong equity markets; otherwise Class B will prevail where accounting systems are dominated by tax/creditor rules (Nobes & Parker 2000). Stakeholder theory suggests that stakeholders such as creditors and owners will demand similar information needs within each country cluster. Class B countries will focus on creditor needs whereas Class A countries will concentrate on the investor group. Therefore, this study hypothesizes that:

H1: There is an association between country cluster and the level of VESAD provided in the financial section, non-financial section

and the entire annual report of airline companies.

Alliance partners

A structure unique to the industry is alliance arrangements. When the study was conducted, there were five major global strategic alliance groupings, *Qualifyer Group*, *Star Alliance*, *Oneworld*, *SkyTeam*, and *Northwest-KLM Alliance* (IATA 2001). Formation of alliances is partly due to regulatory barriers such as the restrictions of domestic markets faced by foreign carriers and limits on foreign ownership, which restrict entry of new carriers on international routes between countries (Gallacher and Odell 1994).

There is no known literature examining alliance partners as a determinant to VESAD. Given the unique structure of the industry, this variable is an important one to examine. Stakeholder theory suggests a positive relationship between alliance partners and VESAD in meeting the demands of various stakeholder groups. Pressures for companies to satisfy an increased range of stakeholders' demand in an efficient and effective manner may result in increased transparency of the company (Schaltegger & Burritt 2000). As a result, this study hypothesizes that:

H2: There is a positive association between membership in an alliance and the level of

VESAD provided in the financial section, non-financial section and the entire annual report of airline companies.

Type of auditor

Studies by Singhvi and Desai (1971), Watts and Zimmerman (1986), and Craswell and Taylor (1992) found that larger audit firms were significantly associated with higher disclosure levels. Larger audit firms are also perceived to offer a high quality service and face risks of losing their established reputation if they are associated with clients who provide limited disclosure, thus greater pressure for clients to disclose greater amounts of information (Craswell and Taylor 1992).

Stakeholder theory also suggests that choice of an external auditor can potentially enhance credibility within stakeholders such as investors on their investment decisions, with Big Five audit firms having a greater influence over the non-Big Five.¹³ Therefore, this study hypothesizes that:

H3: There is a positive association between type of auditor and the level of VESAD provided in the financial section, non-financial section and the entire annual report of airline companies.

Company size

Stakeholder theory suggests that larger companies provide higher levels of disclosure as they face more scrutiny by the general public and special interest groups (Roberts 1992). Numerous studies have suggested a positive relationship between company size and voluntary disclosures as larger firms have lower information production costs and lower costs of competitive disadvantage associated with disclosure (Trotman and Bradley 1981; Hossain, Tan & Adams 1994; Meek, Roberts & Gray 1995; Williams 1999; Purushothaman, Tower, Hancock & Taplin 2000). Trotman and Bradley (1981) argue

that larger companies also face greater pressure to exhibit social responsibility due to the attention received from the general public.

Larger companies tend to have more shareholders who are interested not only in the financial position but also the impact on the environment and community, and thus, are more likely to disclose voluntary information through formal communication (such as the annual report) to interested parties (Cowen, Ferreri & Parker 1987). Accordingly, it is hypothesized that:

H4: There is a positive association between company size and the level of VESAD provided in the financial section, non-financial section and the entire annual report of airline companies.

Profitability

Stakeholder theory argues that the stronger the financial performance of a company the greater the social pressures likely to be faced by the organisation (Roberts 1992). Firms also have to consider a multitude of different stakeholder groups to be profitable and thus provide more VESAD to satisfy those demands (Schaltegger and Burritt 2000). Profitable firms have incentives to distinguish themselves from less profitable firms to raise capital on the best available terms (Meek, Roberts & Gray 1995). One way to achieve this is through disclosure of voluntary information (Foster 1986). Roberts (1992) and Meek, Roberts & Gray (1995) found a positive relationship between profitability and voluntary disclosure. As a result, the hypotheses relating to this study is:

H5: There is a positive association between profitability and the level of VESAD provided in the financial section, non-financial section and the entire annual report of airline companies.

Government ownership

Companies under government ownership will be less transparent than more privatized companies because of the lack of

¹³ This study examined the accounting environment before the *Arthur Andersen* collapse, thus the term Big Five instead of Big Four is used.

competition faced and less pressure from equity financiers (Gonenc and Nicoletti 2001). Further, board of directors and managers of government owned firms are less accountable for enhancing shareholder value. Government owned firms receive government funding and face less pressure in paying dividends (Jensen 1986). Moreover, disclosure issues become more important as ownership is diffused (Nair and Frank 1980).

This study proposes VESAD to be negatively associated with government ownership under stakeholder theory. Airlines that are owned by the government would have relatively fewer shareholders, and any form of reporting is directly to the management and government. Companies that are privatised have a higher commitment to provide greater voluntary disclosure such as about environmental, health and safety, social, community and sustainability to meet the wide range of stakeholder needs. The following hypothesis is derived:

H6: There is a negative association between government ownership and the level of VESAD provided in the financial section, non-financial section and the entire annual report of airline companies.

Timeliness of reporting

This study considers timeliness of reporting as an exploratory independent variable. Larger companies are under greater pressure to release information on a timely manner due to greater external pressures (Ng & Tai 1994). Given the airline industry is one of the largest global industry, it is anticipated that airline companies will make timely voluntary disclosures. Thus, an inverse relationship between timeliness and VESAD would apply since larger companies are under external pressures from stakeholders who require timely information for decision making.

Timely information is required for investors to assess the probability of future cash flows from interest payments and redemption of capital. Concerned stakeholders also require timely information

to evaluate the performance and service delivery of the company (Dwyer & Wilson 1989). Stakeholder theory also suggests that companies are under an obligation to provide annual reports with a shorter reporting delay and also ensure adequate information is disclosed. Therefore, this study predicts that:

H7: There is a negative association between timeliness of reporting and the level of VESAD provided in the financial section, non-financial section and the entire annual report of airline companies.

Research methods

Data was collected from annual reports of seventy airline companies from forty-two countries with financial year ends in 2000. The disclosure index (keywords) developed for this study was adapted from Meek, Roberts & Gray (1995), AlNajjar (1995), Williams (1999) and Purushothaman, Tower, Hancock & Taplin (2000). These key terms appear to be the most common synonyms in the VESAD literature. The measurement techniques for both dependent and independent variables are shown in Table 1.

Results

In this study, five variables of total revenue, total assets, number of employees, revenue passenger kilometres (RPK) and available seat kilometres (ASK) are used as a composite proxy for company size. Factor analysis is performed on the five variables to form an overall single measure of company size. Multiple regression is then used to test the composite size measure as one of the predictors of VESAD (financial), VESAD (non-financial) and VESAD (total). Therefore, the composite measure comprises multiple key attributes (Cooke 1992).

All the assumptions needed to be met before multiple regressions performed were tested. Results show departures from the normality assumption for variables used in the composite size measure (total revenue, total assets, number of employees, RPK and ASK). To alleviate this violation, the natural logs of these variables were used.

Table 1: Summary of measurement technique for variables

| Variables | Measurement technique | Key literature |
|---|---|---|
| Dependent variables | | |
| VESAD _F VESAD _{NF} VESAD _{TOT} | Aggregated measure of five VESAD themes using zero for non-disclosure and one for disclosure; separately calculated for financial, non-financial sections and annual report. | Chow & Wong-Boren 1987; Cooke 1991; Hossain et al. 1994; Meek et al. 1995; and Williams 1999. |
| Independent variables | | |
| Country cluster | Broader classification scheme of scoring 0, 1, or 2 for each country cluster classification - Class A (strong equity), Class B (weak equity) and unclassifiable. | Nobes 1998; Nobes & Parker 2000. |
| Alliance partners | Dichotomous dummy classification of 0 and 1, where 0 signifies an airline not part of an alliance and 1 represents an airline that belongs to an alliance group. | An exploratory dichotomous ordinal measure is used. |
| Type of auditor | Dummy variable of 1 if audited by Big Five audit firm or 0 if audited by non-Big Five is used. | Craswell & Taylor 1992; Hossain et al. 1995; Choi & Wong 2002. |
| Company size | Composite size index by factor analysis consisting of total revenue, total assets, number of employees, and measures of airline's capacity of revenue passenger kilometres and available seat kilometres. | Ahmed & Nicholls 1994; Craig & Diga 1998; Tan et al. 2002. |
| Profitability | Two-year average of the ratio of profit before tax and interest on a two-year average of total assets. | Cowan et al. 1987; Hackston and Milne 1996; Tan et al. 2002. |
| Government ownership | Measured according to the % of government ownership of airlines | Airline Business 1998 |
| Timeliness of reporting | Exploratory variable measuring calendar days from year end of financial statements to date of auditor's report, a proxy known as audit delay. | Whittred 1980; Davies and Whittred 1980; Lont and Duncan 1989; Ng and Tai 1994; Courteau and Zeghal 1999, 2000. |

Table 2 (see below) shows the disclosure levels of each of the five VESAD themes in the annual report as a whole. The employee theme is the most disclosed in the annual reports of listed airline companies, and is consistent with other studies such as Cowen, Ferreri & Parker (1987), Hackston and Milne (1996), Williams (1998) and Purushothaman, Tower, Hancock & Taplin (2000). This is followed in order by the disclosure of energy-related issues which is inconsistent with past studies such as Hackston and Milne (1996), Williams (1998)

and Purushothaman, Tower, Hancock & Taplin (2000) which reported low levels of energy disclosure. Health and safety, and environment themes come next. The lowest level of disclosure is about the community, but is still higher than past studies, as mentioned above. The five themes received significant attention in the airline industry reports, suggesting that all the five themes are highly regarded by airline companies. Consistent with stakeholder theory, airline companies supply high levels of VESAD in response to the differing demands of the stakeholders.

Table 2: Comparison of scores of VESAD themes for the 70 airlines sampled

| | Environment | Employee | Health and Safety | Community | Energy |
|------------------|-------------|----------|-------------------|-----------|--------|
| Disclosure level | 67% | 100% | 83% | 53% | 99% |

Note: Total sample in this study is seventy passenger airline companies.

Table 3 highlights the ranges, means and standard deviations of each of the continuous independent variables. Five variables were used to obtain a composite company size measure. Currency values are denoted in US dollars as at the relevant fiscal year to ensure comparability. Company size measures of

total revenue, total assets, number of employees, RPK and ASK were all highly positively skewed. The average government ownership is 32%, suggesting a fairly de-regulated sample. The average reporting delay is 83 days, which is less than the three months required by many regulatory bodies.

Table 3: Descriptive statistics of continuous independent variables (n = 70)

| Independent Variables | Minimum | Maximum | Mean | Std Dev. |
|--------------------------------|---------|---------|--------|----------|
| Company size | | | | |
| Total Revenue (USD millions) | 14.29 | 19,703 | 3,399 | 4,744 |
| Total Assets (USD millions) | 6.04 | 26,213 | 4,263 | 6,128 |
| Number of Employees | 180 | 103,172 | 17,588 | 23,569 |
| RPK (millions of km) | 6.29 | 204,362 | 33,207 | 45,720 |
| ASK (millions of km) | 10.40 | 282,531 | 44,078 | 61,901 |
| Profitability (%) | -13.4 | 29.1 | 4.5 | 6.5 |
| Government Ownership (%) | 0 | 100 | 32 | 39 |
| Timeliness of reporting (days) | 16 | 191 | 83 | 44 |

All airline companies disclosed at least one of the VESAD themes in their full annual report. Between the two sections in the annual report, airline companies tend to disclose more VESAD in the non-financial as compared with the financial section. Results from the regression analyses conducted are shown below in Table 4.

Airlines in an alliance provide greater VESAD in the financial section of the annual report, positively correlated at the 5% level. Airlines with full or partial government ownership disclosed less VESAD in the financial section.

Results for VESAD_{NF} and VESAD_{TOT} were similar as both company size and timeliness of reporting were significant in predicting VESAD. Therefore, the larger the airline company the higher the level of VESAD and the quicker the airline company issues its annual report, the greater the VESAD in the non-financial section and the annual report as a whole. Other variables of country cluster, type of auditor, profitability and leverage were not significant influences on VESAD practices within the airline industry.

Table 4: Summary of significant results from multiple regressions analysis.

| Dependent variables | Significant independent variables | Hypotheses | Coefficient sign | P-Value | Adjusted R ² |
|----------------------|-----------------------------------|----------------|------------------|---------|-------------------------|
| VESAD _F | Alliance partners | H ₂ | Positive | 0.011 | 0.063 |
| | Government ownership | H ₆ | Negative | 0.028 | 0.100 |
| VESAD _{NF} | Company size | H ₄ | Positive | 0.000 | 0.208 |
| | Timeliness of reporting | H ₇ | Negative | 0.093 | 0.211 |
| VESAD _{TOT} | Company size | H ₄ | Positive | 0.000 | 0.213 |
| | Timeliness of reporting | H ₇ | Negative | 0.035 | 0.240 |

Implications

The insignificant results of country cluster found in this study could be attributed to a number of factors. First, as suggested by Taylor and Turley (1986), each nation's accounting rules and regulations are based upon its culture, economics, political and legal systems, therefore diversity in accounting regulations will exist.

Given that the sample airlines in this study were from forty-two different countries, accounting rule diversity is a real concern. However, with moves towards international harmonisation of accounting principles and practices each country's accounting techniques and concepts may be conforming to what is supported globally (Cooke and Wallace, 1990). Moreover, IATA's six airline accounting guidelines (AAG) for worldwide airlines established greater consistency between airlines (KPMG and IATA, 1992) and reduced the variance in airline financial accounting practices (Tan, Kidman & Cheong 2002). Therefore, the IATA guidelines (an example of industry self regulation) may have greatly reduced the expected country diversity affect.

Class A (micro) and B (macro) developed by Nobes (1992; 1998) and Nobes and Parker (2000) were used to classify the countries into two groups. However, Cooke and Wallace (1990) felt that countries cannot be established into abstract categories as each nation's accounting rules and regulations is unique and is dependent upon its culture, economics, political and legal systems. Moreover, Nair and Frank (1980) argue that disclosure practices do not conform well to such conceptual classification schemes after finding that the

pattern underlying measurement practices differs from those underlying disclosure practices. They also note that disclosure practices exhibit greater diversity from measurement practices, thus accurate taxonomies are problematic.

An important finding of this study is that participation in an alliance is a driving factor for VESAD in the financial section of the annual report. Stakeholder theory supports a positive relationship between alliance partners and VESAD (financial) as there will be increased pressures for companies to satisfy stakeholders' demand in an efficient manner, and this leads to increased transparency of the company (Schaltegger and Burritt, 2000). Thus, airlines in an alliance link are more transparent and disclose more VESAD than those airlines not part of an alliance.

However, a financial focus seems to be the driving imperative in predicting VESAD practices. Statistical analysis shows there is no relationship between alliance categories and VESAD (non-financial) and VESAD (total), failing to support stakeholder theory. Perhaps the (mainly) financial linkages within an alliance are generating similar located disclosures.

Stakeholder theory suggests that employing Big Five audit firms would enhance credibility to the various stakeholders on investment decisions. However, type of auditor is not a significant predictor in this study for all three dependent variables. Watts and Zimmerman (1986), and Craswell and Taylor (1992) claim the extent of voluntary disclosures is higher for companies audited by Big Five audit firms and lower if audited by non-Big Five firms. Hossain, Tan & Adams (1994)

proposed a positive relationship between type of auditor and voluntary disclosure, but their findings were insignificant, consistent with other studies such as Firth (1979), Tan, Kidman and Cheong (1990), Simon, Teo, and Trompeter (1992), and Hossain Perera & Rahman (1995). The insignificant results could be caused by sample size imbalance in the non-Big Five cell since 91% of the sampled airlines are audited by the Big Five leaving only 9% in the other category.

Dierkes and Coppock (1978) and Trotman and Bradley (1981) have argued that larger companies face greater pressure for social reporting as they receive more attention from the general public. Larger companies also have more stakeholders who might be concerned with the social programs undertaken by the company, smaller companies do not face such pressures and tend to communicate social programs by more informal channels (Cowen, Ferreri & Parker 1987).

Consistent with past literature, company size is a significant predictor for VESAD (non-financial) and VESAD (total), the larger the company the greater the level of VESAD. This supports prior research on voluntary disclosure practices which have noted the strong positive influences of company size (Cooke, 1991; Hackston & Milne, 1996; Hossain, Perera & Rahman 1995; Meek, Roberts & Gray 1995; Williams 1999; Purushothaman, Tower, Hancock & Taplin 2000). The non-financial section is directed towards the company's social accountability and is aimed at a broader group of stakeholders than the owners and investors who pay more attention to the financial section. Therefore, more VESAD may be provided in the non-financial section to meet the needs of the various stakeholders.

Profitability is not a significant predictor of VESAD, contradicting the positive relationship advocated by stakeholder theory, which argues that the stronger the financial performance of a company, the more social pressures likely to be faced by the organisation (Roberts, 1992; Williams,

1999). Past empirical research is divided, for example AlNajjar (1995) found a positive relationship between profitability and VESAD practices, whereas Hackston and Milne (1996) detected no association when examining VESAD of entities in New Zealand. Other studies such as Foster (1986), Purushothaman, Tower, Hancock & Taplin (2000), Meek, Roberts & Gray (1995), Wallace, Nasar & Mora (1994) and Cowen, Ferreri & Parker (1987) also found no association. Perhaps the unique nature of the airline industry makes other more unique measures (such as revenue passenger kilometres and available seat kilometres) the key performance indicators in measuring performance over profitability (Tan 1999).

There is little research examining the effects of government ownership on voluntary disclosure. Although more airlines are seeking privatisation, government ownership is still relatively common among the airline industry (Gallacher & Odell 1992). Based on stakeholder theory it is expected that airlines under some form of government ownership will disclose less VESAD information. Disclosure becomes more important as ownership is diffused (Nair & Frank, 1980). The insignificant results of government ownership and VESAD_{NF} and VESAD_{TOT} fail to support the tenets of stakeholder theory. The insignificant results can also be explained from the perspective that there is less need for capital funding from the global markets. There is also limited competition faced by airlines, resulting in few shareholders and lower importance placed on VESAD.

Annual reports need to be issued in a timely way with greater levels of VESAD (under stakeholder theory tenets) to meet the needs and expectations of various stakeholders. Interestingly, findings showed VESAD (non-financial) and VESAD (total) are driven by the timeliness of reporting predictor. This suggests that the more organised (timely) airline companies are, the more they disclose. This finding is a shift from the other findings of this study, which

predicted significant results for VESAD in the financial section.

Conclusion

This study provides partial support of stakeholder theory to explain VESAD within the airline industry. The results partially validate the conceptual scheme from which the hypotheses of this study were derived which extends the scope of VESAD practices to the sub-sections of an annual report. Findings note that business environmental attributes like alliance partners and government ownership are predictors of VESAD in the financial section. For the non-financial section and the annual report as a whole, company's attributes of company size and timeliness of reporting were found to be predictors. Therefore, by sub-dividing the annual report, this study distinguishes that the drivers differ between the financial and non-financial sections and the annual report as a whole.

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