The role of characteristics of 'upper echelons' and demographics of organizations in predicting the likelihood of SBR adoption in Australia

by

Dr Saiful Azam (corresponding author)
School of Accounting, RMIT University, Melbourne, VIC 3001, AUSTRALIA
Email: mdsaiful.azam@rmit.edu.au

Dr. Mohammad Istiaq Azim
Department of Accounting and Finance, Swinburne University of Technology
Faculty of Business and Enterprise, Hawthorn VIC 3122, AUSTRALIA
Email: mazim@swin.edu.au

Abstract

The Australian government's XBRL-derived reporting facility called *Standard Business Reporting* (SBR) went 'live' to listed companies in 2010. This paper investigates the demographic factors of both the mangers and the organizations that affect the likelihood of SBR adoption in Australia. Drawing primarily on Upper Echelons theory (UET), six characteristics or demographic factors of the managers and their organizations are identified and tested to provide insights to likely adopters of SBR and unlikely adopters of SBR. Self-administered questionnaire method was used to collect data on the respondents from top 500 listed companies in Australia. It is found that demographic factors are not useful in explaining likelihood of SBR adoption in Australia; only one factor, namely experience of the upper echelons, passed the significance test. Implications of such finding are discussed.

Keywords: Standard Business Reporting, XBRL, Upper echelons, Adoption.

1. Introduction

Following government-led initiatives in the US and European countries to implement an Extensible business reporting language (XBRL) based financial reporting medium between businesses and regulatory agencies, the Australian government, through a task group under the Australian Treasury, developed a version of XBRL-facilitated on-line reporting which has been called Standard Business Reporting (SBR). This SBR facility was implemented in July 2010, allowing reporting entities to submit their financial reports, taxation returns and other required reports to the Australian Securities and Investments Commission (ASIC), Australian Taxation Office (ATO) and other regulatory agencies through this facility. To take it up, a reporting entity

needs to adopt a version of XBRL as an interface with its accounting and financial and compliance reporting systems. Despite the many espoused benefits of adopting the XBRL-based SBR platform, the voluntary take-up since July 2010 has been very low and only 0.05 percent of entities within Australia decided to take up SBR (see http://www.pc.gov.au/__data/assets/pdf_file/0005/116726/07-coag-reform-regulation-chapter6.pdf). Without adoption of SBR by reporting entities, the expected net benefits to players in the financial reporting supply chain cannot be fulfilled.

As SBR is a fairly recent phenomenon in the Australian context, there is a lack of knowledge about its likely success (if any) in the medium-term in relation to take up by Australian business entities. It has been argued that organizational outcomes – both strategies and effectiveness- are viewed as reflections of the values and cognitive bases of powerful actors (i.e. top executives) in the organizations (Hambrick and Mason, 1984). It is suggested that those making decisions regarding allocation of resources within an organization can influence adoption of innovations (Meyer and Goes, 1988). This calls for an investigation of background information of the top executives (upper echelons) to understand their impact on likelihoodof SBR adoption in Australia. While managers/top executives make decision for their entities, it would also be interesting to know whether certain organizational features (e.g. size), or organizational demographics, impact the likelihood of adoption of SBR. Earlier, Kumar et al (2003) suggested that characteristics of organizations act as a factor to determine organizational adoption of innovation. The objective of this study is to empirically test the impact of these demographic factors (both upper echelons' and organizational) on the organization's likelihood to adopt SBR. This study aims to do so by collecting and analysing data from a sample of listed companies in Australia. The paper starts with a short introduction of SBR initiative in Australia followed by theoretical perspectives that underpin the development of hypotheses/research questions for this study. Research method is discussed next followed by results and discussion on the results.

2. The SBR initiative in Australia

The term "Standard Business Reporting" (SBR) is generally used to refer to an initiative to simplify business reporting, particularly to governments. The current reporting framework in Australia imposes a heavy burden on business in terms of

time and cost. SBR is a program of work operating across the whole-of-government aimed at reducing costs to business in reporting information to government. SBR strives to reduce costs to business through standardisation; standardisation of a place of lodgement, data definitions and a communication language (SBR steering group of New Zealand, 2008). The most obvious choice to achieve standardization and seamless exchange of information is XBRL.

In Australia, the federal government set up a taskforce to consider reducing regulatory burdens on business. It reported in 2006 under the title “Rethinking Regulation” (Madden, 2009). This report indicated that cost to business of government reporting requirements was in the order of 2.5 per cent of GDP per annum because it diverted time and resources from core business activities. Some submissions to the taskforce indicated that compliance activities could take up to 25 per cent of senior management's time. In response, the Australian Government approved the development of an SBR program through an SBR Steering Group with the Australian Treasury as the lead agency and participation from ASIC, the ATO, the ABS and State and Territory revenue offices (However, Productivity Commission report published in 2012suggests that ABS had withdrawn its engagement with the SBR project citing ‘reservations’ and Australian treasury is currently in discussion with ABSfor its reengagement. See *http://www.pc.gov.au/__data/assets/pdf_file/0005/116726/07-coag-reform-regulation-chapter6.pdf*). It closely considered the Dutch Taxonomy project that aimed to standardise the reporting of financial accounts, taxes and financial statistics and move to XBRL reporting for all these areas (Madden, 2009). There has been extensive consultation and collaboration with stakeholder groups, including business and business intermediaries such as commercial accounting and business software developers. These ‘business intermediaries’ are a large group that includes accountants, tax agents, financial advisors, payroll specialists and bookkeepers, as well as business and industry associations (Madden, 2009). Together a single set of reporting definitions was developed that makes it possible to map government reporting terms directly to the appropriate information in a business’s financial/accounting or payroll system. From July 2010, companies within Australia can voluntarily use the SBR platform to submit their statutory reports to the major participating government agencies.

At the heart of the SBR program is the underlying definitions and the properties of financial information. The collective set of reporting definitions for SBR is referred to as the SBR Taxonomy. XBRL has been chosen as the technical solution for formalizing these definitions eventhough there were no publicly successful adoption of XBRL in Australia (Troshani&Lymer, 2010). As stated earlier, XBRL is a platform independent language based on Extensible mark up language (XML). XML provides a method to tag financial information to improve the automation of information location and retrieval (Debreceny&Gray, 2001). From a technical perspective, the XML specification defines a set of rules for creating valid XML. It is not focused on business reporting, but rather it is a broad-based specification applicable to any project requiring the structuring and electronic exchange of data (Farewell, 2010). XBRL builds upon XML, allowing accountants and regulatory bodies to identify items that are unique to the business reporting environment in their countries and also taking into consideration the multidimensional nature of business reporting (Farewell, 2010). As XBRL is governed by a not for profit consortium, XBRL has gained acceptance from jurisdictions around the world. This coupled with IFRS being already produced in an XBRL Taxonomy form prompted Australian regulators develop SBR taxonomy based on XBRL. Australian regulators, thus, achieve XBRL standardization via the SBR project and Troshani&Lymer (2010) note that this XBRL standardization in SBR project would automatic sending of data stored in businesses' accounting software directly to relevant government agencies saving time and cost. The SBR programme, therefore, is driven by clearly defined standardization processes (Troshani&Lymer, 2010). Financial information delivered via SBR carries a XBRL tag (using SBR taxonomy) but these tagged outputs (also known as instance documents) are not in themselves user friendly. SBR enabled software (sourced from software vendors) is needed to make the documents user friendly. An interface is developed in SBR medium to ensure seamless exchange of information between company and regulators. That interface is called SBR core services. Australian treasury notes that the businesses will not see the SBR Core Services, and will not log onto SBR to report, as all of the reporting functions will be built into their software (Madden, 2009). To encourage the voluntary take up, the Director of SBR and his office in Treasury (which is overseen by the government-appointed SBR Board and Business Advisory Forum) continues to manage and promote the SBR program in partnership with business, reporting professionals,

software developers and participating Australian, state and territory government agencies. There is also said to be credible SBR operational support teams available to businesses within the ATO, and other agencies have support processes to deal with incoming SBR reports (Madden, 2009).

3. Theoretical Frameworks

As a technological innovation, SBR is quite distinct from other types of innovation. Prospective SBR adoption would happen at organization level and, therefore, different organizational characteristics have the potential to facilitate the adoption decisions of SBR. It is well established in the broader IT adoption contexts that aspects of the organizations may facilitate or inhibit adoption of an innovation and those aspects include but not limited to an organization's structures and processes (DePietro et al. 1990) and the internal resources that constitute an organization's readiness to introduce an innovation (Chau and Hui 2001;Chwelos et al 2001;Kuan and Chau 2001;Wymer and Regan 2005). Huang et al (2008) suggest that the success of innovation adoption is dependent on an organization's preparation for the innovation. In other word innovation adoption decisions are a function of the organizational context within which they are embedded. An organization's context evolves as a result of its past strategic and structural decisions which in turn affect its ability (or lack of it) to innovate effectively (Dougharty et al., 1996).

The link between top management teams and the decision made by their companies is quite obvious-the top management of the companies who makes the decisions about the operation of the companies. Intuitively the process of making decisions by them is difficult to detach from their personality traits (Adler, 1989). This statement is supported by several empirical studies have demonstrated that personality traits of management have an important influence on the decision making process and on organizational strategies (Miller et al., 1988; Lefebvre & Lefebvre, 1992). Adoption of SBR is also not an exception since management of Australian entities need to make decision about their reporting strategies. The study ofstrategic activities, suchas the adoption of innovations (SBR in this context), should therefore take into account the characteristicsof the top managers (or upper echelons). Rogers (1995) termed this group of characteristics as demographic characteristics and the upper echelons theory (Hambrick and Mason, 1984) suggests that organizational strategic outcomes

and processes are a function of these demographic characteristics of top managers.Upper echelons theory has its roots in behavioural theory of the firm (Nielsen, 2010), which at its core centres on impacts of managers' cognitions, values and perceptions on the strategic choices. Due to the reason that managerial values and perceptions are difficult to measure, the upper echelons theory draws prior research on demography to suggest that managerial characteristics are reasonable proxies for the managers' cognition, values & perceptions and might dictate decisions made by managers (Carpenter et al, 2004). The upper echelons theory led the researchers to devote significant attention to exploring, how the human side of managers, such as their backgrounds, influences the decisions they make (Nielsen, 2010). Eisenhardt and Schoonhoven (1996) study was among the early studies in this area and finds a relationship between executive demography and firm strategy. Cited by Rawasdeh et al (2011), these demographic characteristics have been widely used to examine a number of issues within the information systems area such as the computer (Carveth &Kretchmer 2002; Venkatesh& Davis 2000), the Internet (Carveth & Kretchmer 2002) and XBRL adoption and its subsequent impact on users (Henderson, Sheetz&Trinkle 2009). Given the wide applications of demographic characteristics for examining the adoption of a number of aforementioned technologies, their role is presumed to have different effect on likely adopters of SBR than unlikely adopters. A study of the demographics of potential adopters of SBR may assist the policymakers to better direct their efforts for SBR adoption in Australia. The description of each demographic variable is offered in the following subsections.

3.1 Familiarity with SBR

It is logical to assume an innovation comes with an uncertainty in the sense that the innovative idea has not been tested in the organization before. Therefore, when the familiarity of the new idea is increased, the perception of risk by an adopter is reduced. Wejnert (2002) suggests that people are naturally cautious approaching novelty and rate of adoption increases as the novelty decreases (Greve, 1998). Familiarity with innovation would inform the useful features (of the innovation) to the users (Venkatesh et al., 2003), which might prompt adoption. It can be argued that familiarity with innovation gives mangers a broader knowledge base to have better understanding of how to adopt the innovation within their organizations (Smith et al

2005).SBR is a technology intensive project and therefore, differing level of familiarity with SBR by top executives of Australian would have different effect on their perception of risks associated with SBR adoption and ultimately on SBR adoption.

H1: Difference in level of familiarity (with SBR) exists between top managers of likely adopters and top managers of less likely adopters of SBR.

3.2 Age

The UET suggests that youthful managers are more appealing to fresh and unique ideas, and more willing to take risks than older managers (Hambrick and Mason, 1984). The argument isthat the older mangers lack physical and mental stamina (Child, 1974), which inhibits their ability to grasp new ideas (Chown, 1960). It is also argued that older managers/executives display more resistance to change (compared to younger executives) (Stevens et al, 1978) to maintain financial security and career security (Hambrick and Mason, 1984). Age divergence, therefore, is expected to influence the adoption and use of a new technology based system in organizations. SBR (which uses XBRL as technology enabler) is expected to streamline company reporting practices but adoption of SBR requires financial commitment into the system, which older executives might be less inclined to commit. The younger executives are assumed to be more associated with the adoption compared to old age group. In line with the reasoning, the following hypothesis is developed.

H2: There is a significant difference between likely adopters and Less-likely adopters of SBR in the various age groups of managers.

3.3 Gender

Gender is considered as an important variable in social research (Rawasdeh et al, 2011, Paige et al, 2006) and typically gender differences are reported in the research studies (Venkatesh et al, 2000). Hofstede (1984) noted gender differences in management and planning when describing the nature of management skills as culture specific. The evidence of the gender differences is reported in a variety of contexts. For example, differences are reported between women and men in college course selection (Wilson et al, 1994), financial decision making (Powell &Ansic,

1997), retirement decisions (Talaga&Beehr, 1995). Studies on technology adoption also report the gender differences in adoption which prompted Venkatesh et al (2000) to comment, "…the role of gender in technology adoption and usage behaviour is crucial (Venkatesh et al, 2000, p. 50)". It is expected that that the gender composition of top managers plays an important role in organizational processes. This view is supported by the findings of research (Igbaria et al., 1998). Gender composition of top executives might affect the decision on SBR adoption since an organizational process (reporting to government agencies) is associated with this decision.This argument is carried to current study and following hypothesis is developed.

H3: There is a gender difference of managers between likely adopters of SBR and less-likely adopters of SBR.

3.4 Experience

It is logical to assume that experience of managers with the organizations would enable the managers to have perspectives on organizational processes, which can be expected to have an effect on the type of actions taken by the managers. Managers having extensive work experience with entities will have greater expertise and thus more relevant knowledge on organizational processes (Smith et al, 2005). Those managers, therefore, are expected to have a better understanding of how to introduce an innovative process in their entities. The UET argues that managers (or top executives) draw upon their job related experience in decision making (Hambrick and Mason, 1984). Smith et al (2005) cite that organizations run by executives with limited experience will have limited knowledge base upon which to draw (p. 348). It is, therefore,expected that companies with experienced managers are likely to be SBR adopters compared to companies with less experienced managers.The following hypothesis is developed:

H4: Difference in managerial experience exists between top managers of likely adopters and top managers of less likely adopters of SBR.

The above four demographic variables of top management is included in this study to investigate their impacts on the likelihood of SBR adoption by entities. However, as stated previously and as noted by Meyer and Goes (1988), organizational adoption of innovation may as well depend on certain organizational features.

Therefore, following the works of notable researchers in the field (e.g. Rogers, 1995; Meyer and Goes, 1988), two organization specific variables ('Organizational size' and 'Type of industry the organization operates in')are investigated in this study. It would be interesting to know if SBR adoption by entities differs on the basis of those two factors.

3.5 Organizational size

Size is one of the most ambiguous influencing factors in adoption literature (Askarany and Smith, 2008). But the studies investigating the impact of business size on adoption have produced mixed results (Damanpour, 1992; Dewar & Dutton, 1986; Kamaruddin&Udin, 2009). Some authors claim that larger organizations have several advantages over smaller firms in the adoption of innovation. For example, Teo et al (2003) argue that the larger organizations have the financial and technology resources to put up with the cost of innovation and bear the risk of failure. Similar argument is posed by Premkumar&Robets (1999). Alternatively some other authors have argued that smaller firms have advantages over larger firms when it comes to adopting an innovation (Askarany & Smith, 2008). These authors argue that smaller firms are more flexible, less bureaucratic, which allow them to more adapt to innovation (Patterson et al, 2003; Iskander et al, 2001). Based on these confusing and mixed results, following research question is developed to investigate the likelihood of SBR (an innovation in financial reporting practice) adoption in Australia.

RQ1: Is there a significant difference between likely adopters and Less-likely adoptersof SBR on the basis organizational size?

3.6 Type of Industry the organization operates in

The adoption literature suggests that the type of industry has an important role in the usage and adoption of innovations (Henderson et al., 2009). For instance Ogbonna& Harris (2005) found positive connection between type of industry and tendency to adopt and use new innovations. SBR brings an innovation to financial reporting practice of entities. More specifically SBR is designed to streamline business to government reporting. Australian businesses, regardless of the type of industry the entities operate in, need to undertake compliance reporting to government agencies to comply with regulatory requirements. In that sense likelihood of SBR adoption

does not depend on the type of industry the organization operates in. On the other hand organizations in particular industries (financial institutions) might have more complex government reporting requirements than others. Therefore, these organizations might be more likely to streamline the process (via adopting SBR) than other entities. This dual argument led to the following research question.

RQ 2: Is there a significant difference between likely adopters and Less-likely adopters of SBR on the basis of the industry the organization operates in?

4. Research Methodologies

This study is based on a survey design in which a questionnaire is developed to gather measures of the relevant constructs. The top 500 listed companies on the Australian Securities Exchange (ASX) are chosen as the sample. The data collection method employed is a self-administered questionnaire addressed to the CFO (or nominated managers) of each sampled company. The questionnaire contains questions on the demographics of the respondent and his or her company. Consistent with the hypotheses and research questions developed for this study, following questions formed demographic section of the questionnaire:

- Familiarity with SBR (Very familiar/somewhat familiar/ vaguely familiar)
- Gender (Male/Female)
- Age (Below 30/ 30 – 45 / above 45)
- Experience (number of years)
- Company size – Number of employees (Below 100,101- 500, 501 – 1000,1001-5000, above 5000)
- Industry type

Responses to dependent variable ‘likelihood of adoption of SBR in near future’ were collected to test the hypotheses and research questions. A single dichotomous question with the choice ‘highly likely’ or ‘less likely’ was asked to measure this variable. Data collection was carried out between February and May 2010. 54 responses, in total, were received after the administration of the survey. The researcher acknowledges that the number of responses is low for this type of study. As SBR was a new project yet to be launched at the time of data collection and there had not been a significant story in newspapers/ media concerning a case of XBRL adoption (the technology enabler of SBR) in Australia, it was probable that many recipients of the questionnaire felt they had insufficient knowledge about the technology to make an attempt at completing the questionnaire.

5. Results and discussion
5.1 Sample and data characteristics

As previously mentioned, organizations making up the sample are listed companies domiciled in Australia. The respondents are either CFO or a nominated senior manager involved in corporate financial reporting or information systems. The demographic profile of the respondents reveals that most are male (more than 80%). Of these respondents, less than 25% represent companies with less than 100 employees, around 50% represent companies with 100 to 1000 employees and the rest of the respondents represent companies with more than 1000 employees. The frequency distribution of responses on the likelihood of actual adoption of SBR in the near future shows that 33%of respondent companies are likely to adopt SBR in their first full financial year of the facility being made available by key government agencies, while the rest reported less likely to adopt SBR in near future.

5.2 Upper echelon characteristics and likelihood of SBR adoption

Four hypotheses have been developed to test the difference of managers' demographics between two groups of adopters ('likely' vs 'less-likely'). The results are produced below:

SBR familiarity and SBR adoption

The frequency distribution shows that 50 out 54 respondents (or 92.6%) reported 'somewhat' or 'vaguely' familiarity with SBR. It is no wonder that 68% of them showed less interest in adopting SBR in near future which might be attributed to their lack of knowledge (assessed by familiarity) about the medium. Following table contains the detailed distribution of the result.

Table 1: Familiarity and SBR adoption

Familiarity with SBR	Less- likely Adopters of SBR		Likely Adopters of SBR	
	Frequency	Percentage	Frequency	Percentage
Very Familiar	2	5.6	2	11.1
Somewhat Familiar	11	30.6	9	50
Vaguely Familiar	23	63.9	7	38.9
Total	36	100	18	100

Chi-square test	
Value	3.075
p (2 sided)	0.215

Person's chi-square test reveals that there is no clear and significant SBR familiarity difference between 'likely' and 'less-likely' adopters of SBR. Thus H1 is not supported and managers' SBR familiarity does not help to categorise adopters of SBR into likely/less-likely group.

Age and SBR adoption:

Majority of the respondents are aged over 40 (64.8% in total). 69% of this age group of respondents indicated that they are less likely to adopt SBR for their organizations. It is interesting to note that only one respondent falls under the age of 30 years and a likely adopter of SBR. Chi-square test is not significant. Therefore H2 is not supported and there is no significant age difference of managers between likely adopters and less-likely adopters of SBR.

Table 2: Age and SBR adoption

Respondent's age	Less- likely Adopters of SBR		Likely Adopters of SBR	
	Frequency	Percentage	Frequency	Percentage
Below 30	0	0	1	5.6
30 – 40	12	33.3	6	33.3
Above 40	24	66.7	11	61.1
Total	36	100	18	100

Chi-square test	
Value	2.057
p (2 sided)	0.358

Gender and SBR adoption:

As reported previously, most of the respondents are male. Following table illustrates that companies with female respondents/managers have equal distribution over likely and less-likely adopters of SBR. Amongst the male respondents, 68.8% reported less likely adoption for their entities. Again Pearson's Chi-square test suggests non-significant gender difference between likely adopters and less likely adopters of SBR. So, H3 is also not supported.

Table 3: Gender and SBR adoption

Respondent's Gender	Less- likely Adopters of SBR		likely Adopters of SBR	
	Frequency	Percentage	Frequency	Percentage
Male	33	91.7	15	83.3
Female	3	8.3	3	16.7
Total	36	100	18	100

Chi-square test	
Value	0.844
p (2 sided)	0.358

Experience and SBR adoption:

The study finds that the number of likely adopter increases with the increase of respondent's experience with respective entity. Especially majority of the managers with more than 10 years of experience with the entity are likely to adopt SBR for their entities. The Pearson's chi-square test confirms that there is a significant difference of manager's experience between likely adopters and less-likely adopters of SBR. Therefore, unlike the previous three hypotheses, H4 is accepted.

Table 4: Managerial experience and SBR adoption

Respondent's experience with the company	Less- likely Adopters of SBR		Likely Adopters of SBR	
	Frequency	Percentage	Frequency	Percentage
Less than 5 years	19	52.8	9	50
5 - 10 years	15	41.7	3	16.7
11 - 15 years	2	5.6	5	27.8
Over 15 years	0	0	1	5.6
Total	36	100	18	100

Chi-square test	
Value	8.839
p (2 sided)	0.032

Overall, the study finds that the characteristics of top managers (upper echelons) offer very little help to categorise adopters of SBR since three out of four hypotheses are not accepted. Contrary to expectation of this study and contrary to the finding of majority of the adoption studies (see Wejnert, 2002), familiarity with SBR, age and gender of upper-echelons seem to have no impact on SBR adoption. Probably, the findings reveal that SBR is a unique case of technology adoption, and observable

demographic factors of top managers (upper echelons) do not provide reflection of organizational decision on this type of unique case. In a related research Locke and Lowe (2007) report that preparers will face the bulk of the cost associated with XBRL implementation. Similar concerns are voiced by some of the respondents' open ended comments in the survey. One of the respondents has even stated *"(implementation of SBR) will have a massive transaction cost"* which prevents the company adopting SBR. Another respondent said, "*SBR will be hard to sell from a commercial perspective*". Clearly they have concern for the high costs that comes with SBR implementation, which made yet another respondent stating "*this (SBR) will just be a big project that costs and takes time without significant gain"*. It seems that business case for adoption of SBR is not well established in the minds of the upper echelons of the entities. The development of a business case of SBR adoption is not investigated in this study, but the findings of the study do indicate that a proper business case is imperative for diffusion of SBR within Australia. A clear and well-articulated business case would enable the managers of the entity to understand the relevance of SBR adoption. At this stage, that business case seems to be absent in the minds of the upper echelons which is evidenced by low adoption of SBR. The development of a business case requires a more comprehensive investigation of SBR which is beyond the scope of this study.

The study might be extended to next level of corporate governance (i.e the board members) to shed more light on relationship between upper echelon and SBR adoption, which is beyond the scope of this study. The findings reveal that experience level of managers working for likely adopters differs from the experience level of managers working for less likely adopters. This is in tandem with the arguments offered in the theoretical section. Executives' higher levels of experience partially shape the lenses through which they view current strategic opportunities and problems (Hambrick and Mason, 1984). This allows the executives (upper echelons) to have a better perspective on organizational issues and opportunities, which they can use when making decision for their entities. Therefore, it is not surprising that experience level of managers differ between likely adopters and less likely adopters of SBR.

5.3 Organizational demographics and likelihood of SBR adoption

Two research questions are developed in this section to investigate the effect of organizational demographics and SBR adoption. The results are produced in following sections:

Organizational size and SBR adoption

The literature has mixed results on the association of business size and adoption of innovation. Number of employees is used as indicator of business size in this study. The findings suggest less-likely adopters outnumber the likely adopters of SBR across all business size groups except for very large organizations (i.e employees over 5000). Chi-square test reveals that the result insignificant. Therefore, no significant difference exists between likely adopters and less likely adopters of SBR on the basis of the size of the organizations. Following table details the result.

Table 5: Organizational Size and SBR adoption

Organizational size (Number of people)	Less- likely Adopters of SBR		Likely Adopters of SBR	
	Frequency	Percentage	Frequency	Percentage
Below 100	9	25	7	38.9
100 – 500	16	44.4	3	16.7
501 – 1000	5	13.9	3	16.7
1001 – 5000	3	8.3	1	5.6
Above 5000	3	8.3	4	22.2
Total	36	100	18	100

Chi-square test	
Value	5.386
p (2 sided)	0.25

The absence of a significant difference between likely and less-likely adopters of SBR across different business sizes is puzzling. Larger business sizes are normally associated with higher ability to make capital outlay (Askarany and Smith, 2008). SBR requires an initial spending to revamp the companies' existing financial reporting system, which larger companies presumably are better able to cope with. The insignificant result in the current study suggests that size does not matter for Australian entities when making a decision for SBR adoption.

Type of industry and SBR adoption:

The frequency distribution of less-likely adopters and likely adopters of SBR across various industries are provided in Table 6 which shows that themajority of the companies across the industries have nominated themselves asless likely adopters of SBR.

Table 6: Industry type and SBR adoption

Industry type	Less- likely Adopters of SBR		Likely Adopters of SBR	
	Frequency	Percentage	Frequency	Percentage
Agricultural	1	2.8	0	0
Mining	10	27.8	4	22.2
Manufacturing	2	5.6	3	16.7
Bank/Insurance	3	8.3	3	16.7
Other financial	6	16.7	2	11.1
Trade	0	0	2	11.1
Engineering	1	2.8	1	5.6
Transportation	4	11.1	3	16.7
Other services	9	25	0	0
Total	36	100	18	100

Chi-square test	
Value	12.279
p (2 sided)	0.139

The answer to RQ2 is found by doing a chi-square test, which gives an insignificant result. Therefore likely adopters and less-likely adopters of SBR do not belong to particular industry or industries. The result is in contrast to the finding by Rawasdeh et al (2011) who find that most of the adopters belong to information industry. But the study by Rawasdeh et al (2011) investigates individual adoption of XBRL. In contrast this study investigates organizational adoption of SBR (XBRL based medium). The difference in result suggests that individual adoption and organizational adoption are not same and requires caution when generalizing result for each other. Also the insignificant result in RQ2 might indicate that SBR does not bring special benefits to any particular industry. SBR is introduced to simplify business to government financial reporting process. All the listed companies, regardless of the type of industry the entity operates in, undertake financial reporting to government agencies in Australia. In that sense, (probably) type of industry operating in is not a big factor for these entities when making a decision to adopt SBR. Therefore, no difference is

found between likely adopters and less-likely adopters of SBR in the type of industry they operate in.

6. Conclusions, limitations and future directions

This paper empirically examined the impact of demographic factors (both the upper echelons and organizational) on the likely adoption of SBR in Australia. Only one demographic factor, experience of managers, was found to be useful to differentiate likely adopters from unlikely adopters of SBR. Organizational demographics were found to be ineffective in categorising likely adopters and less-likely adopters of SBR. It might, therefore, be claimed that demographic factors do not offer much help to explain (or predict) likely SBR adoption in Australia. Contrary to other technology adoption project, SBR presents a unique case of adoption to organizations and therefore a more holistic approach is needed to understand likely SBR adoption in Australia. In that respect, future research might be undertaken to investigate specific issues (technological, organizational, environmental) related to SBR platform to provide commentary likelihood of voluntary SBR adoption in Australia. The major limitation of this study is that the survey instrument used was self-administered and based largely on questions that required perceptions and opinions of the respondents. This can cause bias in the data due to respondent fatigue, acquiescence error or the halo effect. The 'soft' nature of survey data due to such limitations means that replication studies are desirable before the conclusions are firmly established. Any future study that uses qualitative method would be useful to provide more in-depth investigations of top executive's behaviour. This study investigates any possible linkages between a number of demography variables and SBR adoption intention, as prescribed by upper echelons theory. Actual managerial decision making process of managers was not investigated in this study (as this is beyond the scope of the study). Future research might be carried out investigating such processes to provide knowledge into the prospects of SBR adoption in Australia.

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