# WOULD ORGANIZATION SIZE MATTER FOR DATA QUALITY

(Research Paper)

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**Abstract** Data quality issues become more and more critical for information systems in all sizes of organizations. This paper attempts to reveal whether different sized organizations consider the importance and performance of critical success factors for data quality in accounting information system differently. It presents results from a large-scaled Australian survey on Australia CPA members. The One-Way ANOVA is employed for the statistical analysis.

Key Words: data quality, information quality, accounting information systems

## **1. INTRODUCTION**

Data quality (DQ) issues have become more and more critical for organisations' information systems [20] [22]. Regardless the size of the organisations, to have quality information is one of the most important tasks in their information systems management. The growth of data warehouses, communication and information technologies have also increased the needs for high DQ in organisations [20]. Information technology has changed the way in which traditional information systems work. More and more electronically captured information needs to be processed, stored, and distributed through information systems. DQ issues has been addressed as one of the top concerns by information users [27] and reported as one of the six categories commonly employed in management information systems research [13].

Advances in IT have dramatically increased the ability and capability of processing accounting information. At the same time, however, it also brings some issues that the traditional accounting systems have not experienced. Real-world practice suggests that data quality problems are becoming increasingly prevalent [17] [22] [27]. The traditional focus on the input and recording of data needs to be offset with recognition that the systems themselves may affect the quality of data [14]. The application of new information technology can sometimes create problems rather than benefit the organization, if data quality issues have not been properly addressed. Most organizations have experienced the adverse effects of decisions based on information of inferior quality [17].

Data quality has become crucial for the success of accounting information systems (AIS) in today's IT age. This research attempts to gain knowledge of whether different sized organizations would consider the factors influencing data quality in AIS differently. Therefore, the hypothesis of this study is:

 $H_1$ : There is a significant difference between different sized organisations in their perceptions of importance and performance of critical factors for accounting information systems' data quality

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In order to provide an adequate answer to the research hypothesis, the study investigates AIS's major stakeholders' expectations on the importance of factors affecting data quality and their perceptions of performance on each of those factors. This knowledge will hopefully assist organizations to increase the operating efficiency of their AIS and provide the possible benchmark for organisations' data quality management.

## 2. BACKGROUND AND RESEARCH FRAMEWORK

The general definition of data quality is 'data that is fit for use by data consumers' [17]. Many data quality dimensions have been identified. DQ dimensions refer to issues that are important to information consumers (people who use information). Strong et al (1997) group the DQ dimensions into four categories. These categories are conceptual DQ, intrinsic DQ, accessibility DQ and representation DQ. These categories are widely acceptable in the literature [20]. However, there are no uniform lists for the DQ dimensions. Although there is no one standard definition, for the purpose of this research, we adopt one of the commonly identified data quality dimensions, which are:

- o *accuracy*, which occurs when the recorded value is in conformity with the actual value;
- o *timeliness*, which occurs when the recorded value is not out of date;
- o *completeness*, which occurs when all values for a certain variable are recorded, and
- *consistency*, which occurs when the representation of the data values, is the same in all cases. [2][3][4][5][6][7][8]

In data quality and data warehouse fields, there are four stakeholder groups that have been identified who are responsible for creating, maintaining, using, and managing data. They are data producers, data custodians, data consumers, and data managers [25][26][28]. In the accounting information systems area, auditors were recognised as fulfilling the role of monitoring how the accounting information systems work and the quality of the information which has been generated by the systems. Internal auditors especially perform the internal policing and quality adviser role within the organisation.

Data quality research focuses on processing. Accounting management research focuses on results checking and monitoring. In the quality management area the source where raw data comes from is also addressed. In the quality management literature, suppliers' quality management has been highlighted as the important aspect of the total quality management [2][24]. In accounting information systems, data suppliers also play a role in data quality management. Therefore, they are also included in the framework.

Thus, in summary and combination of the above mentioned areas, for the purpose of this research, the stakeholders in accounting information systems have been identified as follows:

- Information producers: create or collect information for the AIS;
- Information custodians: design, develop and operate the AIS;
- Information users: use the accounting information in their works;
- Information managers: are responsible for managing the information quality in the AIS;
- o Internal auditors: monitor the AIS and its data quality, check internal controls in the AIS; and
- Data suppliers: provide the unorganised raw data to the AIS

A model for critical success factors of accounting information systems' data quality was developed based upon the AIS, DQ, quality management literature and previous studies conducted by the author [30][31]. Several categories of factors were identified that according to the theoretical and empirical literature have

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the potential to influence data quality in AIS. These categories were: AIS characteristics, DQ characteristics, stakeholders' related factors, organisational factors, and external factors.



Figure 1: Categories of factors impacting upon data quality in AIS [30][31]

According to the relationships of those factors, they were organised into the research model shown in Figure 1, which contains five constructs at three levels. The first level is the external environment that consists of external factors, the second level is the organisational environment that consists of organisational factors, and the third level is the accounting information systems, which has AIS characteristics and DQ characteristics. Stakeholders of AIS could come from within the AIS, outside the AIS but within the organisation, and outside the organisation. For example, AIS could have both internal and external information suppliers and customers. Within each of those identified categories, a list of factors was grouped. Factors were identified by the comprehensive literature review and the empirical case studies [29]. The relationship between factors and categories is shown in Figure 2, and forms the model for factors influencing data quality in accounting information systems.

Although there is only one factor, *nature of the AIS*, under the category of AIS characteristics, this factor has many attributes, such as the number of the systems / packages, the number of staff, what kind of the system it is, the age and maturity of the system, and the organisational structure of the system. There are seven factors listed under the category of DQ characteristics, those factors are all related directly to the data quality itself. They are: *appropriate DQ policies and standard and its implementation*, *DQ approaches (control & improvement)*, *Role of DQ, Internal control, Input control, Understanding of the systems and DQ*, and *Continuous improvement of DQ*.

The stakeholders could come from both inside and outside the AIS and the organisation. Human related factors have always been the focus within social science and IT research. The category of stakeholders' related factors in this research deals with the human/people related factors' influence on DQ in AIS. They include, top management's commitment to DQ, role of DQ manager/manager group, customer focus, employee/personnel relations, information supplier quality management, and audits and reviews. In the organisational level, there are seven factors, training, organisational structure, organisational culture, performance evaluation & rewards, management of change, evaluation of cost/benefit tradeoffs, and teamwork (communication). External factors have been identified as factors outside the organisation from the external environment, and the organisation has little or no control over them.



Figure 2: The model for factors influencing data quality in accounting information systems [30][31]

From the review of the literature and the previous studies of this project by identifying factors impacting upon data quality in accounting information systems, the theoretical framework developed for this research is reviewed in Figure 3.

This framework integrates several key themes concerning data quality management in accounting information systems. More specifically, this framework identifies five key categories for factors that impact upon data quality in AIS. Those categories are: AIS characteristics, DQ characteristics, stakeholders' related factors, organizational factors and external factors.

In addition, six stakeholder groups for data quality in AIS have also been identified. The research framework ties them to data quality management in AIS. The part of the framework relates to data quality outcome measurement. Ballou et al's data quality dimensions were adopted.



Figure 3: Theoretical framework of this research

## **3. METHODOLOGY**

The purpose of this study is to assess how AIS stakeholder groups in different sized organisations considering the importance and performance of critical factors for data quality in AIS, and whether the size of the organisation have impact on the evaluation of those factors. An Australian national wide survey was conducted, which supported and administrated by Australian Certified Practicing Accountants (CPA) Association. The target of this survey was the member of this association. One thousand questionnaires were sent to them by mail and one hundred and eighty-two were completed and returned.

The survey questions and design were developed based on the results of the multiple case studies conducted by the authors in the earlier stage of the research project. The questionnaire comprises three key sections: listed 25 Critical Success Factors for AIS's data quality; the three most and least important factors; and demographic details about the respondents and their organizations. Most of the questions

were closed-ended to elicit comparable and measurable responses. The respondents were also given the opportunity to add written comments at the end of the survey.

The primary analysis tool used for the research is SPSS. One-Way ANOVA is employed for the testing. Turkey Post Hoc within ANOVA is applied to the further analysis to determine the relationships between paired groups.

## 4. FINDINGS

### 4.1 Demographic Information

This section describes some demographic information of the questionnaire. The survey respondents were asked to provide some basic information about their roles in relation to data quality in their organizations and their evaluations of data quality in their current AIS.

Stakeholder	Main Role	Percent
Information	Create or collect data for the AIS	36.0
producer	Manage those who create or collect data for the AIS	30.0
Information	Design, develop and operate the AIS	
custodian	Manage those who design, develop and operate the	32.3
custonan	AIS	
Information	Manage data and / or data quality in AIS	17.5
manager		17.5
Internal auditor	Audit or review data in AIS	0.5
Information user	Use accounting information in tasks	11.5

 Table 1: Respondents' Main Role

Table 1 shows that 36 percent of attendants were information producers who created or collected data for the AIS or managed those who created or collected data. Another 32.3 percent of attendants were custodians. They were responsible to design, develop and operate their AIS or to manage those who design, develop and operate the AIS. Only 0.5 percent of respondents were internal auditors who were auditing or reviewing data in AIS. As data suppliers are commonly from outside of the organisations and AIS, it is likely that they might not be an IT or accounting professional. It is difficult to incorporate this stakeholder group into the survey. Therefore, data suppliers were not listed in the questionnaire.

The respondents were also asked background information about their organizations and themselves, such as the industry of the organization, organization's location and size, and the respondent's job level. As the purpose of this paper is to discuss the organizations' size's influence of data quality, therefore, only the revenue figures of the surveyed organizations are presented.



Figure 4: The Annual Revenue of the Surveyed Organizations

Figure 4 shows that 74 organizations' revenues were between 10 and 99 million dollars. Only 25 organizations' revenues were under 5 million dollars. Also, 2 respondents indicated that they were not permitted to disclose their organizations' revenue.

## 4.2 Major Findings

Since there is no one set of clear cutoffs for categorising the size of the organisations, the organisations' annual revenue figures were used as the scales for organisation size for the analysis of this study. The questionnaire has set four scales for the annual revenue: under \$5 million, \$5 million to \$9 million, \$10 million to \$99 million, and over \$100. There were also two additional options provided in the survey for those respondents that were not sure and not permitted to disclose their organisations' annual revenue figures. Table 2 shows how the annual revenue represents the different size of the organisations For the purpose of this research, those scales of organisation size are categorised as: very small organisations (under \$5 million), small organisations (\$5 million to \$9 million), medium-sized organisations (\$10 million to \$99 million), and large organisations (over \$100 million).

The annual revenue	Size of the organisation				
Under \$5 million	Very small				
\$5 million to \$9 million	Small				
\$10 million to\$99 million	Medium				
Over \$100 million	Large				

Table 2: The annual revenue represents the size of the organizations

ANOVA analysis was used to explore whether there is any differences between different sized organisations in regarding the critical factors for accounting information systems' data quality. The ANOVA was chosen because the constructs of interest (dependent variables): importance of the factors was measured on the interval scale, and the organisational size was seen as the independent variable. The assumptions for ANOVA analysis: normal distribution, equal variance among groups, random and independent samples are satisfied.

Table 3 presented the ANOVA results for different sized organisations' perceptions in regarding to the importance and performance of the critical factors for data quality in AIS.

			Importance			Performanc	e
	Revenue	Mean	Std. Deviation	Sig.	Mean	Std. Deviation	Sig.
	Under 5 Million	4.16	.688		3.44	1.044	
	5 Million To 9 Million	4.07	.828	.938	3.17	1.053	.500
	10 Million To 99 Million	4.16	.703		3.22	1.216	
Тор	Over 100 Million	4.22	.823		3.33	1.066	
Management	Not Sure	4.00	.000		2.50	2.121	
Commitment	Not Permitted To Disclose	4.50	.707		4.50	.707	
	Total	4.16	.745		3.28	1.132	
	Under 5 Million	4.04	.735		3.48	.918	
	5 Million To 9 Million	3.97	.809		3.07	.980	
Middle	10 Million To 99 Million	4.16	.683	.814	3.07	1.058	.199
Management	Over 100 Million	4.09	.821		3.22	1.085	
Commitment	Not Sure	4.00	.000		2.50	2.121	
	Not Permitted To Disclose	4.50	.707		4.50	.707	
	Total	4.10	.742		3.18	1.049	
<b>Education And</b>	Under 5 Million	3.64	1.075		3.04	1.197	
Training	5 Million To 9 Million	4.00	.910		2.63	1.033	
	10 Million To 99 Million	4.08	.807		2.85	1.244	
	Over 100 Million	3.91	.793	.341	2.89	1.092	.792
	Not Sure	4.00	.000		3.00	1.414	

	Not Permitted To	2 50	707		2 50	707	
	Disclose	3.50	.707		3.50	.707	
	Total	3.96	.862		2.86	1.155	
	Under 5 Million	3.72	1.100		2.92	1.222	
	5 Million To 9 Million	3.70	.915		2.50	1.106	
Clear DQ	Million	3.81	.822		2.67	1.202	
Vision For	Over 100 Million	3.69	.900	.964	2.73	1.095	.724
Organization	Not Sure	4.00	.000		2.50	2.121	
organization	Not Permitted To	3.50	.707		3.50	.707	
	Disclose	2.75	000		0.70	1 1 6 1	
	I otal Under 5 Million	3.75	.000		2.70	1.101	
	5 Million To 9 Million	2.93	1 163		3.48	1 724	
	10 Million To 99	2.00	1.100		0.10	4.704	
Establish DQ Managor	Million	3.31	1.227		3.26	1.764	
Position To	Over 100 Million	3.40	1.009	.472	3.38	1.403	
Manage DQ	Not Sure	3.50	.707		2.50	2.121	.886
<b>U</b>	Not Permitted 10	3.50	2.121		4.00	2.828	
	Total	3 23	1 142		3 38	1 669	
	Under 5 Million	3.52	.963		3.36	1.319	
	5 Million To 9 Million	3.52	.986		3.67	1.605	
	10 Million To 99	3 64	837		2.88	1 322	
Organizational	Million	0.04	.007		2.00	1.022	
Structure	Over 100 Million	3.62	1.007		3.18	1.267	
	Not Sure	4.00	.000	966	2.50	2.121	140
	Disclose	3.50	.707	.500	3.50	.707	.140
	Total	3.60	.912		3.16	1.377	
	Under 5 Million	3.48	.872		3.16	1.313	
	5 Million To 9 Million	3.53	.900		2.97	1.474	
	10 Million 10 99 Million	3.85	.886		2.84	1.054	
DQ Policies	Over 100 Million	3.80	815		3 07	1 232	
And Standards	Not Sure	4.00	.000	.332	2.50	2.121	.786
	Not Permitted To	1 00	000		3 50	707	
	Disclose	4.00	.000		0.00	.101	
	Total	3.74	.866		2.97	1.215	
	5 Million To 9 Million	3.70	1.052		3.12	1.201	
	10 Million To 99	5.50	.045		5.00	1.505	
Organizational	Million	3.95	.941		2.69	1.134	
Culture	Over 100 Million	3.91	.668		2.98	1.055	
Guitare	Not Sure	4.00	.000	.970	2.50	2.121	.362
	Not Permitted To	4.00	.000		4.00	.000	
	Total	3 90	864		2.89	1 173	
DQ Controls	Under 5 Million	3.68	.627		2.84	1.106	
	5 Million To 9 Million	3.80	.664		2.60	1.003	
	10 Million To 99	3 84	898		2 75	1 160	
	Million	0.01	.000	754	0.00	0.44	00.4
	Over 100 Million	3.96	.673	.751	2.98	.941	.634
	NOT SUIE	4.00	.000		2.50	2.121	

	Not Permitted 10	3.50	.707		3.50	.707	
	Disclose	201	760		2 00	1 074	
	I Otal	3.04	.702		2.00	1.074	
	5 Million To 0 Million	4.20	.792		3.20 2.27	.930	
	10 Million To 99	4.37	.009		3.27	.944	
	Million	4.31	.681		3.07	1.051	
Input Controls	Over 100 Million	4 49	661		3 31	949	
	Not Sure	4 00	000	.640	3.00	1 414	.615
	Not Permitted To						
	Disclose	4.00	.000		4.00	.000	
	Total	4.35	.684		3.20	.988	
	Under 5 Million	3.84	.624		3.00	1.118	
	5 Million To 9 Million	4.20	.847		2.80	1.095	
	10 Million To 99	1 1 1	720		2 05	1 1 7 0	
	Million	4.11	.132		2.00	1.170	
User Focus	Over 100 Million	4.16	.767		2.89	.885	
	Not Sure	4.00	.000		2.00	1.414	
	Not Permitted To	4.00	.000	.562	4.00	.000	.556
	Disclose		- 10			1000	
	Total	4.10	.742		2.88	1.082	
	Under 5 Million	4.24	.523		3.20	1.080	
		4.20	.761		2.97	1.217	
	IU WIIIION TO 99 Million	4.27	.668		2.97	1.072	
Naturo Of AIS	Over 100 Million	1 20	605	677	3 20	001	116
	Not Sure	4.00	.035	.077	4 00	000	.++0
	Not Permitted To	4.00	.000		4.00	.000	
	Disclose	3.50	.707		3.50	.707	
	Total	4.25	.669		3.10	1.074	
	Under 5 Million	4.32	.627		3.32	1.069	
	5 Million To 9 Million	4.03	.850		2.83	1.085	
	10 Million To 99	1 1 1	728		2 03	1 151	
Employee	Million	4.14	.720		2.95	1.131	
Relations	Over 100 Million	3.93	.939	.276	2.93	1.031	.394
	Not Sure	3.50	.707		2.00	.000	
	Not Permitted To	3.50	.707		3.50	.707	
	Disclose	4.00	700		0.07	1 00 1	
	Total Under 5 Million	4.00	.799		2.91	1.094	
	5 Million To 9 Million	3.00 4.03	.000		2 03	828	
	10 Million To 99	4.05	.000		2.90	.020	
	Million	4.11	.653		3.08	1.044	
Management	Over 100 Million	3.98	.812	.592	3.02	.988	.911
Of Changes	Not Sure	4.00	.000		3.00	.000	-
	Not Permitted To	2 50	707		2 50	707	
	Disclose	3.50	.707		3.50	.707	
	Total	4.02	.672		3.06	.975	
Measurement	Under 5 Million	3.60	1.000	.600	3.24	1.234	.488
And Reporting	5 Million To 9 Million	3.87	.681		2.80	.925	
	10 Million To 99	3.84	.937		2,91	1,207	
	Million	0.01	0.07		2.01	1.101	
	Over 100 Million	3.87	.815		2.69	1.164	
	Not Sure	4.00	.000		3.50	.707	

1				1			
	Not Permitted To	3.00	.000		3.00	.000	
	DISCIOSE Total	3.81	868		2 80	1 1/0	
	Under 5 Million	2.01	.000		2.03	1.149	
	5 Million To 9 Million	3.20 3.50	.900		3.24 2.72	1.090	
	10 Million To 90	3.50	.001		2.75	1.112	
Data Supplier	Million	3.53	.914		2.73	1.158	
Quality	Over 100 Million	3 76	802	434	3.02	1 1 96	432
Management	Not Sure	3.50	707	0-	2.50	707	.402
management	Not Permitted To	0.00			2.00		
	Disclose	3.50	.707		3.50	.707	
	Total	3.55	.885		2.88	1.244	
	Under 5 Million	3.64	.860		2.80	1.190	
	5 Million To 9 Million	3.83	.648		2.50	.938	
	10 Million To 99	0.00	700		0.04	4.054	
Continuous	Million	3.82	.783		2.64	1.054	
Continuous	Over 100 Million	3.91	.793	.501	2.82	.984	.603
improvement	Not Sure	4.00	.000		3.50	.707	
	Not Permitted To	3.00	000		3.00	000	
	Disclose	5.00	.000		5.00	.000	
	Total	3.81	.770		2.70	1.030	
	Under 5 Million	3.92	1.115		3.24	1.268	
	5 Million To 9 Million	4.13	.629		3.17	1.020	
<b>T</b>	10 Million To 99	4.14	.581		2.97	.979	
leamwork	Million		000	240	0.00	4 000	000
(Communicati	Over 100 Million	4.11	.832	.310	3.00	1.022	.883
On)	Not Sure	4.00	.000		3.00	.000	
	Not Permitted To	3.00	.000		3.00	.000	
	Disclose Total	1 08	751		3.05	1 027	
	Under 5 Million	3.56	1 158		2.96	1.027	
	5 Million To 9 Million	3.53	973		2.30	1 408	
	10 Million To 99	0.00	.070		2.01	1.100	
	Million	3.45	.830		2.68	1.376	
Cost/Benefit	Over 100 Million	3.40	.889	.944	2.62	1.284	.822
Analysis	Not Sure	3.50	.707		2.00	.000	
	Not Permitted To	3.00	000		3 00	000	
	Disclose	5.00	.000		5.00	.000	
	Total	3.46	.909		2.73	1.313	
	Under 5 Million	4.08	.640		3.29	.999	
	5 Million To 9 Million	3.93	.583		2.97	.964	
Understanding	10 Million To 99	3.92	.736		2.82	1.012	
Of The	Willion	2 00	74.4	416	0.07	000	204
Systems And	Over 100 Million	3.89	.714	.416	2.07	.826	.204
DQ	Not Sure	4.00	.000		3.00	.000	
	Disclose	3.00	.000		3.00	.000	
	Total	3.93	689		2 88	957	
Risk	Under 5 Million	3.96	1.020	.686	3.16	1,179	.100
Management	5 Million To 9 Million	3.87	,681		2.70	1.149	
Jones	10 Million To 99	0.70			0.54	4.000	
	Million	3.76	.824		2.51	1.230	
	Over 100 Million	3.76	.830		2.60	.939	
	Not Sure	4.50	.707		1.50	.707	

	Not Permitted To	3.50	.707		3.50	.707	
	Disclose	2.01	020		2.66	1 150	
	Inder 5 Million	3.01	.029		2.00	1.150	
	5 Million To 9 Million	4.20	583		3.03	1.200	
	10 Million To 99	1.27	.000		0.00	1.100	
Descent	Million	4.08	./1/		2.86	.984	
Personnel	Over 100 Million	4.07	.728	.642	3.14	.824	.314
Competency	Not Sure	4.00	.000		2.00	1.414	
	Not Permitted To	3 50	707		3 00	000	
	Disclose	0.00			0.00		
	Total	4.12	.733		3.01	1.017	
	Under 5 Million	3.96	.676		3.84	3.738	
	10 Million To 90	3.60	.047		3.13	1.190	
	Million	3.66	.848		3.30	1.082	
Physical	Over 100 Million	3.73	.837	.706	3.38	.960	.746
Environment	Not Sure	3.50	.707		3.50	.707	
	Not Permitted To	3 50	707		3.00	000	
	Disclose	0.00			0.00		
	Total	3.74	.817		3.37	1.700	
	Under 5 Million	3.36	1.221		3.68	1.626	
	5 Million To 9 Million	3.63	.890		2.50	1.280	
	Million	3.68	.829		2.82	1.297	
Audit And	Over 100 Million	3.93	.863	.159	3.09	1.041	.010
Reviews	Not Sure	4.00	.000		1.50	.707	
	Not Permitted To	3.00	.000		3.00	.000	
	Disclose	2.60	016		2.04	1 0 1 0	
	I Otal	3.09	.910		2.94	1.310	
	5 Million To 9 Million	3.00 4.03	.033		3.20	928	
	10 Million To 99	4.00	.400		0.00	.020	
Internal	Million	4.20	.662		3.15	1.056	
Controls	Over 100 Million	4.20	.694	.044	3.16	.928	.991
Controis	Not Sure	4.50	.707		3.00	.000	
	Not Permitted To	3.00	.000		3.00	.000	
	Total	4.12	.683		3.13	.994	

Table 3: Different sized organizations' responses on the importance and performance of critical factors

Highlighted have significant difference between groups

As shown in table 3, significant differences are found in regarding the importance of *internal controls* and the performance of *audit and reviews* between the organizations that had different revenues. Turkey Post Hoc analysis is then used to compare the pairs. The significant difference is found to only exist between the subgroups under the performance of *audit and review* factor. Table 4 shows the fact.

Dependent Variable: the Performance of Audit and Review

Revenue	Revenue	Mean Difference	Sig.
Under 5 million	5~9 million	1.18	.011
Under 5 million	10~99 million	.86	.049

**Table 4:** Turkey Post Hoc test of paired difference between groups

Tukey tests showed that the means were significantly different between very small (the annual revenue under \$5 million) and small (\$5-9 million) and medium (\$10- 99 million) organisations' performance of *audit and reviews* factor with significant P – values of 0.011, and 0.049, and mean difference were 1.18, and 0.86 respectively, which was the only two pairs that showing significant difference. *Therefore, hypothesis*  $H_1$ , that there is a significant difference between different sized organisations in their perceptions of importance and performance of critical factors for accounting information systems' data quality, is supported for only one factor's performance: <u>audit and reviews</u>, but not supported for other factors.

Lack of significant differences among the different sized organisations may be explained on the basis of the spread of the awareness of information quality issues in accounting information systems across all surveyed organisations. It illustrated that the size of the organisations didn't have much of the influences on their perceptions of importance and performance of the critical factors for data quality. In other words, the level of importance and performance of those factors was similar to surveyed organisations regardless of their sizes. Therefore, it indicates the possibility of generating a set of commonly applicable critical success factors for ensuring data quality in accounting information systems across different sized organisations. That is to be examined in the further study.

A limitation of the survey is to be acknowledged that there is no analysis and conclusions could be drawn about the organisations that did not respond to the questionnaire, because the survey was administrated by CPA Australia, and they have policies on members' privacy that prevent the disclosure of the targeted respondents. Therefore, it is not possible to obtain the information about the non-response organisations.

## **CONCLUSIONS AND FUTURE RESEARCH**

Except for only one factor, *audit and reviews'* performance, statistical results provide that the research hypothesis is not supported for different sized organisations consider the importance and performance of critical factors for data quality differently. The study reveals some insights in data quality issues in AIS that have not been investigated before. The most significant findings are the stakeholder groups who were in different sized organisations had no significant different evaluations about the importance and performance of most of the factors. Therefore, the study could help IT professionals and different sized organisations have better understanding on critical success factors' impact upon data quality in their AIS. It also helps to provide a possible benchmark for organizations to evaluate their own data quality performance against other organizations.

The findings of this study also indicate that the surveyed Australian organizations were aware of the importance of the critical success factors that impact on data quality of accounting information systems. Future studies could consist of cross-country, cross-culture studies to address more issues in this field. In addition, the objective evaluation of data quality outcomes could be combined with the stakeholders' perceptions in this study to build the linkage between people's subjective perceptions of importance with objective actual outcomes of data quality.

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