Attributes of Adopters and the Diffusion of Benchmarking

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Abstract

To take advantage of the most recent advances, organisations may need to proceed with the adoption of benchmarking. However, the extant literature suggests that benchmarking is not widely adopted by many organisations.

Contributing to the literature, the current study is aiming to improve our understanding of the diffusion of benchmarking by exploring the impacts of attributes of adopters on the diffusion of benchmarking in organisations in Australia. Surveying Australian CIMA members, this study identifies 12 organisational factors that can influence the diffusion of benchmarking in practice.

Keywords

The Diffusion of Innovation
Diffusion of Innovation Theory
Benchmarking and Organisational Factors

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Introduction

Benchmarking can be considered as an interesting topic that is less likely to be outdated as it is about the best practice/process at any given time though the examples of best practice/process may change over time. So, any study that may contribute to the diffusion of benchmarking is expected to be of some interest (especially to practitioners) and add value to the literature.

Benchmarking is not a new tool, but rather a modern name for best practice/process at any given time (Bowerman et al., 2001). We may use the term 'innovation' for benchmarking in this paper as the term innovation might be expressed not only in terms of new knowledge, but also in terms of the first persuasion, or a decision to adopt (Rogers, 2003).

It seems that the importance of benchmarking has even increased over the years as the growing level of global competitions have intensified the challenges for managers to consider more effective ways of achieving competitive advantages (which is one of benchmarking goals) and improved organisational performances for the survival of their organisations during the past two decades (Alexander, 1999; Rainsbury et al., 2008; Roslender, 1995). Indeed, benchmarking is an ongoing process that could improve organisational performance by learning from the best practices and processes available in the market at any given time. It involves looking outwards for the best performance all the time to investigate how others achieve their performance levels and to understand the processes they use (Akdeniz et al., 2010; Balakrishnan, 1996; Brownlie, 1996). Benchmarking can help to explain the processes behind excellent performances.

When the lessons learnt from a benchmarking exercise are applied appropriately, they facilitate improved performances in critical functions within an organisation (Claycomb et al., 2000; Cooper, 1996; Kortge et al., 1994). However, despite suggested advantages of benchmarking, the adoption of benchmarking is not widely experienced by many Australian firms (Askarany; Smith, 2004; Askarany; Yazdifar, 2010; Beretta et al., 1998). Drawing on theories from the innovation-diffusion

literature, this study investigates whether organisational factors can influence the diffusion of benchmarking in practice.

The remainder of the paper is structured as follows. Next sections present the literature review, the research methodology adopted, the findings and data analysis and finally the conclusions.

Literature Review

Benchmarking

Benchmarking is considered as one of the managerial tools which has frequently been discussed in management accounting literature (Horngren et al., 2012). Benchmarking includes both technical and administrative techniques and practices. According to Watson (1993), Benchmarking is a systematic and continuous measurement process; a process of continuously measuring and comparing an organization's business process and practices against the best business process and practices in the world to gain information that will help the organization take appropriate action to improve its performance. Confirming the above view, Auh & Menguc (2009) suggest that through the diffusion and adoption of best practices and benchmarking organisations may accelerate their homogeneities and performances. Benchmarking can be applied to all kinds of practices and processes including accounting techniques.

In copying with the growing level of global competitions and achieving more competitive advantages, organisations need to be aware of available practices and processes used by other players in the global market especially by their competitors (Suwardy, et.al, 2003.. Akdeniz et al., 2010; Mller;Trrnen, 2003; Nath et al., 2010). Addressing such an issue, benchmarking has an orientation towards the organisation's environment such as suppliers, customers, and its competitive position relative to both existing and potential competitors. It is a continuous process that focuses on analysing existing processes and practices and comparing them with the best available ones in the market with an on-going recognition of rivalry with competitors. According to Akdeniz et al. (2010), benchmarking can offer a basis for sustainable competitive advantages in organisations.

Different authors have suggested different sequences/steps of activities (from 4 steps to 16 steps) for benchmarking (Akdeniz et al., 2010; Zairi, 1994). However, according to Fong, Shen & Cheng (2001), the most common activities in the process of adoption of benchmarking can be summarised into four basic steps: (1) understanding your own processes in details; (2) analysing the processes of others; (3) comparing your own performance with that of others analysed and identifying the best practice; (4) implementing the steps necessary to close the performance gap. These common steps can be followed for the adoption of all kinds of practices and processes including the reduction of waste (such as operations efficiency, delivery and distribution network), green operations and green supply chain management and other managerial tools such as life cycle assessment, balanced scorecard, target costing, etc.

While learning from others and trying to adopt the best behaviour, activity or practice doesn't seem to be a new phenomenon (and could be started from birth such as acquiring language by children), according to Menachof & Wassenberg (2000), the formal adoption of benchmarking technique (as it is known today) was a relatively unknown and uncommon practice until the late 1980s. They identified insurance companies and U.S. offshoots such as Rank Xerox and Digital Equipment Company as the first companies in Europe who adopted benchmarking, followed by some other European firms such as Shell, Rover, and British Telecom. Though they have reported some high adoption rates (as high as 72 percent) for benchmarking in Europe, the adoption of this technique in Australia has been reported relatively much lower.

For example, Askarany (2003) found that only 35% of Australian firms were using benchmarking. In another study, France (2006) surveyed 355 management accountants in Australia and New Zealand. The purpose of his study was to identify the frequencies of using managerial techniques by managers in their jobs descriptions. Out of the 335 respondents in the targeted sample, 325 indicated their locations: 29 (8.9%) from New Zealand and 296 (91%) from Australia. His study ranks the frequency of using benchmarking in Australia and New Zealand as 14th (compared with other adopted managerial techniques). The adoption rate for

benchmarking in other countries is more or less similar (Askarany, 2014). Examining the diffusion of benchmarking in the Sultanate of Oman, Askarany's (2014) study shows that less than 33% of targeted firms are using benchmarking in practice.

These findings are not in line with Beretta, Dossi, Grove & Obremsky's (1998) suggestion that 'benchmarking is entering a phase of vast diffusion among companies'. According to Naranjo-Gil, Mass, & Hartmann(2009 p:667), although management accounting innovations such as Activity-Based Costing, the Balanced Scorecard and Benchmarking have received much academic interest in recent years, our understanding of why some organizations adopt and implement some new management accounting systems (MAS) and others do not, is still underdeveloped. So, the question is which factors may influence the adoption of benchmarking in practice in Australia?

Diffusion of Innovation Theory

Attempting to answer the above question, this study uses the diffusion of innovation theory (Rogers, 2003) to identify the contextual factors influencing the adoption of innovation in Australia. Rogers (2003) defines an innovation as 'an idea, practice, or object that is perceived as new by an individual or another unit of adoption'. He suggests that if the individual has no perceived knowledge about an idea and sees it as new, it is an innovation. Likewise, Damanpour and Gopalakrishnan (1998) define innovation as 'the adoption of an idea or behaviour new to the organisation'. The common criterion in any definition of innovation is newness. According to Rogers (2003), newness in an innovation might be expressed not only in terms of new knowledge, but also in terms of first persuasion, or a decision to adopt. So, innovation can be related to both new administrative techniques and services and new technological changes and products. Given the above definitions, we can consider benchmarking as an innovation and investigate its adoption in line with the diffusion of innovation theory.

A number of metaphors like translation, imitation, fashion and editing have also been used to describe the processes of travelling new ideas among the members of a social system (Røvik, 1996). However, according to diffusion theory (Rogers, 2003), the diffusion of an innovation (e.g. benchmarking) is not expected to simply emerge and develop full-blown. Some groups of people, some places or some organisations may have immediate access to the innovation, some may access it later, and some may never do. To address the diffusion of benchmarking in Australia, we need to select an appropriate diffusion approach to proceed with. The following section addresses the selection of diffusion approach for the current study.

Diffusion of Innovation Approaches

Fiol (1996) suggests two diffusion approaches for future research and enriching the knowledge on the diffusion of innovations in organisations. The first approach considers innovation as an output (or outcome) and tries to explain organisational determinants of innovation. The second approach looks at innovation as an input and tries to focus on the absorptive capacity of organisations for acquiring and adopting new knowledge or ideas (innovations), so leading to the diffusion of adoption of an innovation. While the first approach focuses on factors determining the ability to generate innovation in organisations as an output, the second approach mainly focuses on factors influencing the diffusion and absorption of innovations as an input.

In line with the above argument, research on the adoption of Benchmarking is in line with Fiol's (1996) second diffusion approach. Damanpour and Gopalakrishnan (1998) recommend this approach for investigating the diffusion of managerial innovations in organisations and suggest further studies on contextual factors that may facilitate or hinder the ability of organisations to absorb innovation as an input. According to Rogers (2003), the decision to adopt an innovation is heavily influenced by a variety of contextual factors. The following section addresses contextual factors influencing the diffusion of innovations.

Contextual Factors Influencing the Diffusion of Innovations

There are a considerable number of contextual factors addressed in the literature which are suggested to influence the diffusion of innovations (Askarany, 2006; Askarany, 2014; Askarany;Yazdifar, 2012; Askarany et al., 2010; Battisti;Stoneman, 2010;

Bigoness;Perreault, 1981; Damanpour; Schneider, 2006; David;Strang, 2006; Kraatz et al., 2010; Nicolini, 2010; Shipilov et al., 2010; Souitaris, 2001; Swan et al., 1999; Tzokas; Saren, 1997; Weigelt;Sarcar, 2009; Yazdifar;Askarany, 2012). Reviewing the diffusion of innovation literature, Askarany (2005) develops the following diffusion model by including the most cited contextual factors in the literature and classifying them into three main categories (attributes of innovation, organisational factors and external factors) as shown in Figure 1.

In the above diffusion model, the diffusion of innovation includes two streams: a. The generation of innovations and b. The diffusion of innovation and each stream follows different stages (as listed in the relevant boxes under each stream in Figure 1). However, both streams are influenced by three main groups of influencing factors: 1. Attributes of Innovation, 2. Attributes of adopters and 3. Social and environmental factors (external factors). According to this diffusion model, each group of influencing factors include a variety of contextual factors (some examples for each group are listed in the top row boxes above each group in Figure 1).

Investigating the diffusion of management accounting innovations in the Sultanate of Oman, Askarany (2014) found no significant association between the diffusion of benchmarking and its attributes. Expanding on the above study, this paper examines the level of association between attributes of adopters (or organisational factors) and the diffusion of benchmarking. According to Askarany (2006), the following factors can be classified under attributes of adopters:

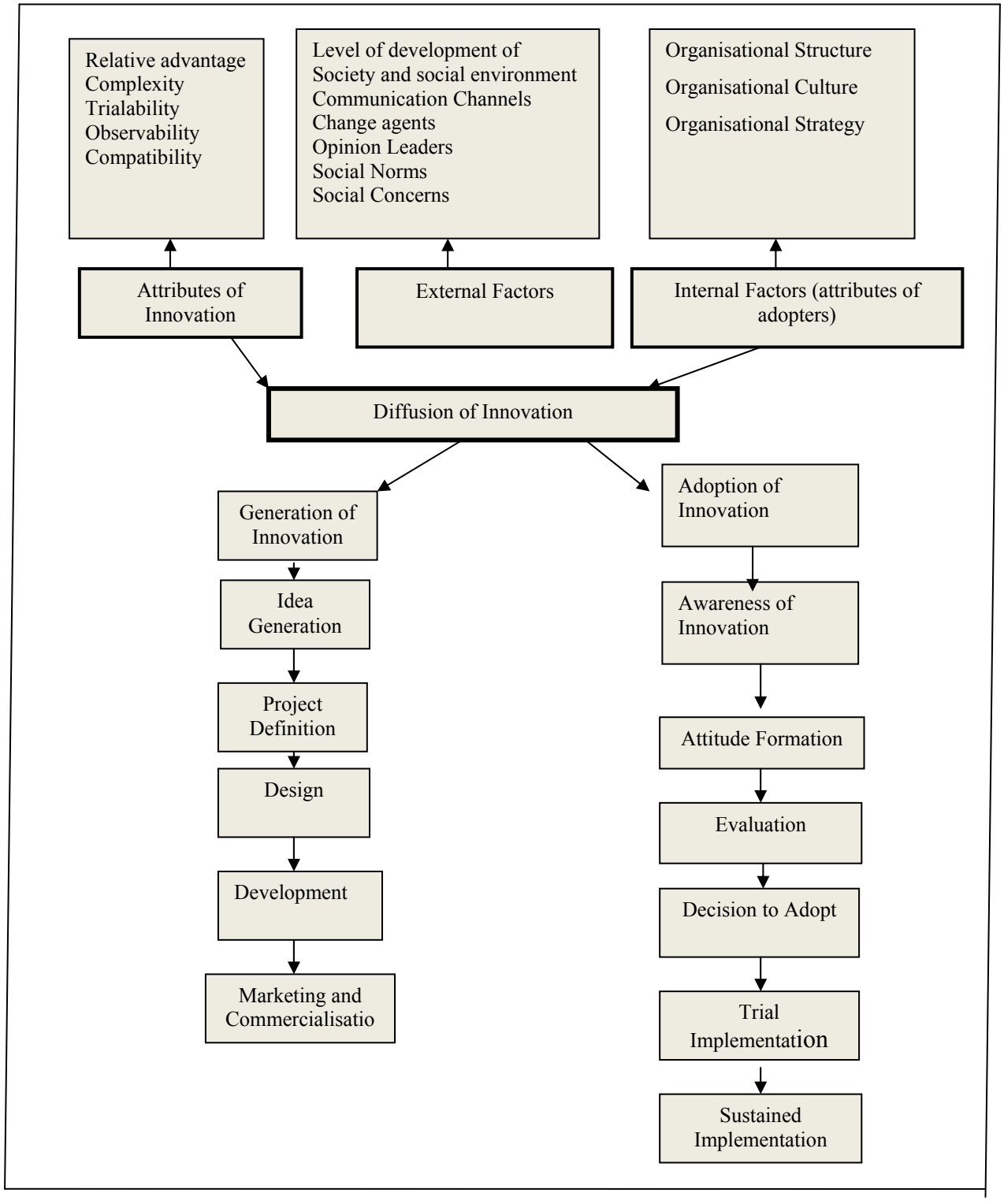
Institution/employee awareness of the benefits of an innovation; institution/employee awareness of the ready availability of an innovation; institution/employee awareness of running cost of implementation and maintenance of the innovation; institution/employee dissatisfaction with the current system; organisational pressures for innovation; institution/employee's lack of confidence in the ability of innovation; a recognised need for change by institution/employee; institution/employee awareness of the degree of uncertainty associated with the outcomes of the innovation; Institution/employee awareness of the amount of investment needed for an innovation; institution/employee awareness of the level of time involved to implement the new techniques(s); the level of clear commitment from senior management in the institutions towards the innovation; the level of existence of a widely recognised 'champion' for the institution ; and the level of employment of management consultants by institutions to facilitate implementation. So, the current study is investigating the impact of above organisational factors on organisations' decisions to adopt (or not adopt) managerial innovations in Australia. Then it examines the level of association/s between the adoption of benchmarking (both as one whole system and as a sequence of activities) and organisational factors (addressed in this study).

Attributes of innovation such as technical compatibility, technical complexity, and relative advantage (Askarany, 2014; Askarany et al., 2007; Askarany;Yazdifar, 2007; Crum et al., 1996) and external factors such as 'change champion' (Sangster, 1996), 'outside agency' (Abrahamson, 1991) and 'secondary diffusion'(Mellett et al., 2009) have received considerable attention in the literature.

However, the main impetus for the current research is that no study has been reported in the literature to investigate the possible association between the diffusion of benchmarking and attributes of adopters.

Given the above, and drawing on theories from the innovation-diffusion literature, this study examines the level of association between organisational factors (attributes of institutions as potential adopters) and the decision/s to adopt (or not adopt) benchmarking as a management accounting innovation. This study is also in line with the 'institutional theory'. According to the 'institutional theory', organisational behaviours (which could determine the adoption of an innovation in organisation) result from and are shaped by a variety of contextual factors related to the organisations such as organisational cultures and other influencing factors that surround resource selection decisions (Auh;Menguc, 2009; Buhr;Freedman, 2001; Collin et al., 2009).

Figure 1: A General Diffusion Model



The remainder of this paper is organised as follows: the research method and the development of the survey are explained in the next section, followed by survey findings, statistical tests and conclusions.

Research Method

A survey questionnaire was mailed to 1,175 Chartered Institute of Management Accountants (CIMA) members in Australia in 2007. Hard copies of the questionnaires were sent to all targeted populations followed by a general announcement on CIMA website (in three weeks period) encouraging those CIMA members who had received the hard copies of the questionnaires but didn't complete them to fill up an online version of the questionnaire. The survey questionnaire was designed to gather information on the level of importance of organisational factors on organisations' decisions to implement managerial innovations and also to seek the level of adoption of benchmarking in organisations. In doing so, respondents were asked to express their views regarding the following statement: the decision to implement (or not) managerial innovations in your organisation would be influenced by organisational factors (listed in the questionnaire) based on the following scale: strongly agree =1; agree = 2; uncertain = 3; disagree = 4; strongly disagree = 5. This scale permits the calculation of mean and standard deviation scores for each factor and the conduct of regression analysis and t-tests (Emory; Cooper, 1991).

Examining the adoption of benchmarking (adoption versus non-adoption) as one whole process, respondents were asked to indicate their organisations' attitudes towards the adoption of benchmarking by using a 5-point Likert-type scale (Abdel-Kader;Luther, 2006; Innes et al., 2000) as follows: with anchors of 1 "discussions have not taken place regarding the introduction of the technique"; 2 "a decision has been taken not to introduce the technique"; 3 "some consideration is being given to the introduction of the technique in the future"; 4 "the technique has been introduced on a trial basis"; and 5 "the technique has been implemented and accepted".

In order to examine the 'level of the adoption of benchmarking , Fong, Shen & Cheng's (2001), 4 sequence of activity levels were used in following orders: (1) understanding your own processes in details; (2) analysing the processes of others; (3) comparing your own performance with that of others analysed and identifying the best practice; (4) implementing the steps necessary to close the performance gap.

We defined 'benchmarking' as a process involving four stages in a definition page that we attached to the questionnaire. Then we asked respondents to tick a box corresponding to one of above four stages, in case if they were adopting benchmarking.
Pilot tests of the instrument were initially undertaken with a group of university academics and managers. Before the survey instrument was mailed to the organisations under investigation, its content validity was addressed by asking a group of managers, lecturers and postgraduate students with manufacturing experience to review the instrument for clarity and meaning and to refine the design and focus of the content further. Modifications were made as deemed necessary. To help motivate response, respondents were offered a final report of the results together with the resulting recommendations to improve the diffusion of administrative innovations.

Findings

The final number of useable responses (both hard copies and online replies) was 310 completed questionnaires plus 88 not-completed or not delivered. The final completed questionnaires have provided the authors with a satisfactory response rate of 28.5%. According to Krumwiede (1998), the normal response rates for this kind of surveys is approximately 20% though there are many published surveys with lower response rates such as 12.5% (Brown et al., 2004) or 19.6% (Al-Omiri;Drury, 2007a; Al-Omiri; Drury, 2007b).

Non-response bias was examined both by using the aggregated data provided by CIMA (such as total number of CIMA members working in manufacturing and non-manufacturing organisations, the average length of experiences of CIMA members and their average ages as qualified CIMA

Table 1: **Respondents' Views (Percentage) Regarding the *Significance* of Importance of Organisational Factors on the Adoption Managerial Innovation**

The decision to implement managerial innovations will be influenced by:	Strongly agree	Agree	Total agreed	Uncert ain	Disagree	Strongly disagree
The level of clear commitment from senior management towards the innovation	67.1	28.2	95.3	2.7	1.3	0.7
Institution/employee awareness of the benefits of an innovation	34.2	53	87.2	6.7	5.4	0.7
Institution/employee recognised need for change	25.7	60.1	85.8	11.5	2.7	0
Institution/employee ability to afford the amount of investment required to adopt the innovation	30.9	53	83.9	10.7	5.4	0
The existence of a widely recognised 'champion' for institution	33.8	43.9	77.7	16.2	5.4	0.7
Institution/employee ability to afford the amount of time required to implement the innovation	24.8	50.3	75.1	15.4	8.7	0.7
Institution/employee awareness of running cost of implementation of the innovation	23	50	73	16.2	10.1	0.7
Institution/employee dissatisfaction with the current system	22.4	49.7	72.1	18.4	8.8	0.7
Institution/employee awareness of the ready availability of an innovation	14.9	47.3	62.2	27.7	8.8	1.4
Institution/employee level of uncertainty associated with the outcomes of the innovation	13.4	43.6	57	38.3	4.7	0
organisational pressures for innovation	12.8	31.1	43.9	39.2	12.2	4.7
The level of employment of management consultants by institution to facilitate adoption of innovation	10.7	30.2	40.9	24.8	24.8	9.4
Institution/employee lack of confidence in the ability of innovation	8.1	29.7	37.8	39.9	22.3	0

members) and comparing them with similar information gathered by the survey, and through a comparison between early and late responses. The former showed responses to be representative, the latter that there was no perceived difference between these responses, suggesting that non-response bias would not influence the outcomes. According to Table 1, the vast majority of respondents believe that the decision to implement (or not) managerial innovations in the organisations would be influenced by organisational factors addressed in this study as follows:

According to Table 1, 67.1% of respondents 'strongly agree' and a further 28.2% of them 'agree' that the decision to implement managerial innovations will be influenced by 'the level of clear commitment from senior management towards the innovation'.

We think this indicates how people like to hear from and comply with authorities in proceeding with the adoption of an innovation. This view would be more consistent with 'forced perspective theory' if 'the level of clear commitment from senior management towards the innovation' is a will or a gaol and senior management is committed to proceeding with the adoption of an innovation (Almeida; Phene, 2004; Yazdifar et al., 2008).

Though more than 67% of respondents 'strongly agree' that 'the level of clear commitment from senior management towards the innovation' influence their decisions (to adopt or not) a managerial innovation such as benchmarking, according to Table 1, between 57% to 95.3% of respondents either 'agree' or 'strongly agree' that the decision to implement managerial innovations will also be influenced by nine other organisational factors (out of 13) addressed in the current study.

Table 2: T-Tests Regarding the Significance of Importance Of Organisational Factors on the Adoption Managerial Innovations

The Decision To Implement Managerial Innovations Will Be Influenced By:	Mean	Std. Deviation	Std. Error Mean	t	Sig. (2-tailed)
Institution/employee awareness of the benefits of an innovation	1.85	0.815	0.047	-24.295	0.000
Institution/employee awareness of the ready availability of an innovation	2.34	0.885	0.051	-12.747	0.000
Institution/employee awareness of running cost of implementation of the innovation	2.16	0.915	0.053	-15.885	0.000
Institution/employee dissatisfaction with the current system	2.16	0.895	0.052	-16.157	0.000
organisational pressures for innovation	2.65	1.008	0.059	-6.000	0.000
Institution/employee lack of confidence in the ability of innovation	2.76	0.890	0.052	-4.574	0.000
Institution/employee recognised need for change	1.91	0.688	0.040	-27.196	0.000
Institution/employee ability to afford the amount of investment required to adopt the innovation	1.91	0.790	0.046	-23.904	0.000
Institution/employee level of uncertainty associated with the outcomes of the innovation	2.34	0.768	0.044	-14.788	0.000
Institution/employee ability to afford the amount of time required to implement the innovation	2.10	0.897	0.052	-17.307	0.000
The level of clear commitment from senior management towards the innovation	1.45	1.060	0.061	-25.247	0.000
The existence of a widely recognised 'champion' for institution	1.95	0.882	0.051	-20.436	0.000
The level of employment of management consultants by institution to facilitate adoption of innovation	2.92	1.164	0.067	-1.195	0.233

According to Table 2, except for the factor named 'The level of employment of management consultants to facilitate implementation' with a mean value of 2.92 (close to mean value of 3 as uncertain), the mean values of all other influencing factors are significantly (significant at $p < 0.000$) inclined towards 'strongly agree (1)' and 'agree (2)'. So, the only non-significant factor is management consultants' roles in pursuing organisations to proceed with the adoption of an innovation. This finding shows how people prioritise the impacts of all other organisational factors such as 'their awareness of the benefits of innovations', their ability to afford the amount of investment required to adopt the innovation, etc. over 'management consultants' roles' in proceeding with the adoption of an innovation. Maybe decision makers in organisations are less convinced with management consultants' suggestions and would like to be assured by other means that the adoption of an innovation is a good decision for them.

However, the findings suggest that the overall views of respondents is that the decision to implement (or not) an innovation is significantly influenced by the other 12 influencing factors addressed in this study. So,

we can conclude that the specified organisational factors (attributes of adopters or organisational factors) significantly influence the decision(s) to implement (or not) managerial innovations in organisations.

The analysis of scale reliability and un-dimensionality shows an alpha of 0.72.3. Cronbach's (1951) alpha of 0.72.3 exhibits no increase should any single item be deleted. This figure is marginally above the value of 0.70 recommended by Nunnally (1978) and Daft and Macintosh, (1981). The total-item correlations for each of the scale composites, with ranges from 0.692 to 0.736. According to De Vaus (1991), values above 0.30 generally indicate acceptable scale un-dimensionality. Variance Inflation Factors (VIF) scores are all below two, indicating no serious problems with multicollinearity within the set of variables (Cavalluzzo; Ittner, 2004).

Following seeking respondents' views on the significance of importance of organisational factors on their decisions regarding the adoption of managerial innovations, the current study further investigates the extent of diffusion of benchmarking in targeted organisations. Table 3 shows the overall rate of adoption of benchmarking (as a whole technique) and Table 4 details the adoption stages of benchmarking in the targeted population in Australia.

Table 3: The Adoption of Benchmarking

No discussion	Decided not to introduce	Some consideration is given	Introduced on trial basis	Implemented and accepted	Total
22.1%	1.3%	18.2%	11.7%	46.7%	100%

According to Table 3, a total of 46.7% of targeted population have implemented Benchmarking and a further 11.7% introduced it on a trial basis. However, according to Table 4, out of 46.7% of organisations that have implemented and accepted benchmarking in organisations, only less than half of them have proceeded with the full adoption of the technique (implementing all four stages). This finding represents an adoption rate of less than 19% (46.7% * 40.4%) for the whole targeted population (as fully proceeded with the highest level of adoption of benchmarking).

Table 4: The Adoption Stages of Benchmarking (For Those Which Have Adopted and Accepted the Technique)

Stages of adoption of benchmarking	Percent
(1) understanding your own processes in details	14%
(2) analysing the processes of others	22.4%
(3) comparing your own performance with that of others analysed and identifying the best practice	22.4%
(4) implementing the steps necessary to close the performance gap	40.4%
Total	100%

The above findings could explain why some studies had reported a higher diffusion rate for benchmarking when they focused on benchmarking as one whole process rather than a sequence of activities. In other words, the high adoption rates of benchmarking reported in some studies (e.g. Menachof & Wassenberg; 2000) is less likely to represent the full adoption of benchmarking (e.g. proceeding with all four levels of adoption). As illustrated in Table 4, such high diffusion rates for benchmarking (e.g. Menachof & Wassenberg; 2000) could be the total of all adopters of benchmarking at all stages rather than those which fully implemented the technique.

While Table 2 reveals respondents' views on the significance of importance of organisational factors on adoption decision in organisations, Table 5 examines the level of associations between organisational factors and the stages of adoption of benchmarking.

Table 5: Relationship between the Adoption Stages of Benchmarking and Organisational Factors (Regression Model)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2.826	0.435		6.503	0.000
Institution/employee awareness of the benefits of an innovation	0.083	0.134	0.049	0.621	0.535
Institution/employee awareness of the ready availability of an innovation	0.337	0.121	0.209	2.775	**0.006**
Institution/employee awareness of running cost of implementation of the innovation	-0.034	0.110	-0.022	-0.314	0.754
Institution/employee dissatisfaction with the current system	-0.024	0.102	-0.015	-0.233	0.816
organisational pressures for innovation	-0.050	0.092	-0.036	-0.542	0.588
Institution/employee lack of confidence in the ability of innovation	0.088	0.102	0.055	0.864	0.389
Institution/employee recognised need for change	0.144	0.142	0.070	1.012	0.313
Institution/employee ability to afford the amount of investment required to adopt the innovation	0.421	0.125	0.236	3.365	**0.001**
Institution/employee level of uncertainty associated with the outcomes of the innovation	-0.340	0.130	-0.182	-2.627	**0.009**
Institution/employee ability to afford the amount of time required to implement the innovation	0.121	0.108	0.077	1.118	0.265
The level of clear commitment from senior management towards the innovation	-0.199	0.078	-0.152	-2.530	**0.012**
The existence of a widely recognised 'champion' for institution	-0.101	0.100	-0.063	-1.012	0.312
The level of employment of management consultants by institution to facilitate adoption of innovation	-0.079	0.078	-0.066	-1.013	0.312

ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	72.464	13	5.574	3.060	0.000[a]
Residual	488.160	268	1.821		
Total	560.624	281			

Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
0.360	0.129	0.087	1.350

The findings show a significant association between some organisational factors and the adoption stages of benchmarking. According to Table 5, there is significant (significant at $p< 0.001$ to $p< 0.012$) association between adoption stages of benchmarking and the following four organisational factors:

(1) institution/employee awareness of the availability of an innovation; (2) institution/employee ability to afford the amount of investment required to adopt the innovation; (3) institution/employee level of uncertainty associated with the outcomes of the innovation" and (4) the level of clear commitment from senior management towards the innovation.

According to Table 2, respondents considered 12 organisational factors (out of 13 addressed in this study) to be influential. However, the

findings in Table 5 show that only the above four factors are statistically associated with the adoption stages of benchmarking in practice (rather than being important only from respondents' viewpoints).

Implications for Practitioners

The results of the current study identify several organisational factors that can impact on the diffusion of benchmarking in organisations. So, the implication for practitioners is that if they want to facilitate the adoption of benchmarking in their firms/organisations, they need to improve employee awareness regarding the availability and the uncertainty associated with the outcomes of adoption of Benchmarking and be able to afford a clear commitment and necessary investment towards its adoption. This task can be done by providing employees with additional information (such as potential benefits of a particular technique/practice that they are considering to adopt) and also assuring them that their organisations will provide necessary training and investment to reach that goal.

Conclusions

This study contributes to the diffusion literature by seeking respondents' views on the significance of importance of organisational factors on decisions regarding the adoption of managerial innovations. It also examines the level of association between organisational factors and the adoption stages of benchmarking in practice.

According to the findings, decision makers in organisations believe that except for one factor named 'the level of clear commitment from senior management towards the innovation' the decision to implement (or not) managerial innovations is significantly influenced by the other 12 influencing factors addressed in this study.

However, the findings suggest that not all organisation factors keep their momentum in influencing the diffusion of benchmarking after the implementation decision was made. In other words, out of 12 influential organisational factors, there are only four factors that remain influential after benchmarking is implemented.
These findings imply that if organisations are willing to proceed with a higher level of adoption of benchmarking, they need to improve institution/employee awareness regarding the availability and the uncertainty associated with the outcomes of adoption of Benchmarking and be able to afford a clear commitment the necessary investment towards its adoption.

Furthermore, the results show that more than 50% of organisations have not adopted benchmarking as an accepted practice. According to the findings, out of 46.7% of organisations that have implemented and accepted benchmarking, only less than half of them have proceeded with the full adoption of the technique (implementing all four stages). The findings can explain why some studies had reported a higher adoption rate for benchmarking when they focused on benchmarking as one whole process rather than a sequence of activities.

Further studies are recommended to investigate if the diffusion of benchmarking is associated with the adoption of any other management accounting innovations such as ABC, target costing, balanced scorecard, etc. The logic behind this recommendation is that other management accounting practices such as ABC are supposed to be able to highlight the potential benefits of adoption of Benchmarking and therefore, may contribute to its diffusion in practice. Furthermore, some in-depth case studies on successful benchmarking implementation can improve our understanding in terms of what benchmarking can do for organisations in the real world.

As with any other investigation, this study is subject to some limitations. Given that many respondents didn't provide us with adequate information in relation to the name and activities of their organisations, we were unable to determine all individual activities of the firms and check if there are more than one respondent from each firm/organisation. Thus, generalizing the results of this study should be done with caution. Furthermore, the findings, conclusions and the implications of this study should be interpreted based on the normal limitations of mail surveys.

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