



Is Standard Costing Still Relevant? Evidence from Dubai

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REPORTS OF THE DEATH OF STANDARD COSTING ARE GREATLY EXAGGERATED, SAY THE RESULTS OF OUR STUDY OF COMPANIES BASED IN DUBAI. BECAUSE OF ITS SIMPLICITY, FLEXIBILITY, AND AFFORDABILITY, STANDARD COSTING REMAINS A FAVORITE COST ACCOUNTING METHOD AMONG ACCOUNTING AND FINANCE PROFESSIONALS IN BOTH INDUSTRIAL AND SERVICE SECTORS IN THIS RAPIDLY EXPANDING PART OF THE GLOBE.

Despite claims that it is less relevant than newer accounting methods, standard costing is far from obsolete, and, in fact, it is experiencing common use in countries as diverse as the United Kingdom, Malaysia, and the United Arab Emirates. With the advent and wide use of methods such as activity-based costing (ABC), Just-in-Time (JIT), the balanced scorecard, and target costing, a number of researchers had predicted the demise of standard costing and variance analysis on the grounds that these tools had become disconnected from actual practices at the industry level where an intense competitive environment often requires a higher level of sophistication in costing systems.

For example, Richard Fleischman and Thomas Tyson claimed that standard costing cannot provide adequate assistance in the areas of construction strategy and operational management.¹ Don Hansen and Maryanne Mowen went so far as to describe it as potentially “dysfunctional.”² These criticisms have largely

contributed to the dismissal of standard costing, especially for large companies that employ more sophisticated methods such as ABC and target costing. Mike Lucas has even raised questions as to whether it is still appropriate for college accounting programs to continue teaching this “outdated” topic.³

GLOBAL ACCEPTANCE OF STANDARD COSTING

While several academics were busy pointing out the weaknesses of standard costing, others observed that this accounting tool continues to be widely used throughout the world. Studies conducted in developed countries have shown rates among companies as high as 73% in the U.K. and 86% in Japan.⁴

More specifically, David Lyall and Carol Graham stated that more than 90% of 231 companies surveyed in the U.K. apply standard costing for cost control purposes. Furthermore, they found that 63% of the managers using this technique reported being pleased in

terms of its decision-making support.⁵ In another study, 76% of 303 accountants in the U.K. and 73% of 85 finance and accounting specialists in New Zealand use standard costing.⁶ The authors also found that accountants viewed modern costing and production management tools as having no impact on how widely standard costing and variance analysis are used. (The respondents even predicted an increase in the importance of the older tools.) A study by Maliah Sulaiman, Nik Nazli Nik Ahmad, and Norhayati Mohd Alwi of companies doing business in Malaysia found similar widespread dissemination and persistence of standard costing: 70% of 66 local firms and 76% of 21 Japanese firms.⁷

These studies reveal that standard costing does not overemphasize cost control, and, moreover, it is linked to quality management. In addition, the Lucas and Sulaiman studies have shown that companies use past performance (“after the fact”) instead of predetermined engineering standards on actual costs. Instead of employing newer and costlier systems, companies have chosen to reconfigure existing systems with more rigorous schemes, implying that firms have adapted standard costing to their specific needs and have not abandoned it.

A CASE STUDY: DUBAI

In light of conflicting views in the academic research, we examine how standard costing and variance analysis are used in one of the world’s fastest-growing economies: Dubai, one of the seven emirates, or states, in the United Arab Emirates. A number of events make our case study appealing, including the steps the Dubai government has taken to free up prices and wages, rationalize indirect taxes, deregulate the financial system, promote foreign direct investment, and encourage all companies to use new information and communication technology. To our knowledge, this study is the first of its kind to shed light on the level of use of standard costing tools in Dubai.

Our study differs from the earlier study by Sulaiman, et al., in that, while they split their sample on the basis of ownership (Japanese vs. local), we disaggregated the companies by sectors: industrial vs. service. We did this for two reasons. The first is contextual: By law, foreigners in Dubai cannot own 50% or more of a company unless that company is located in the free zones.⁸ Thus

it is just not possible to differentiate between nonlocal and local companies in Dubai. Second, by studying the service sector separately, we capture its importance in terms of its contribution to Dubai’s gross domestic product (GDP). The reason also relates to the fact that the service sector has been studied less than the industrial sector when it comes to the use of standard costing. A plausible explanation for this might be the perception that standard costing is not appropriate for the service sector and the claim that service companies distance themselves from it. Therefore, we address the following questions:

- a. Is standard costing used in Dubai?
- b. How important are various functions in standard costing?
- c. How frequently are various techniques and cost standards used in standard costing?
- d. How important is the analysis of variance for control purposes?

COLLECTING THE DATA

We collected the data presented here through a survey questionnaire, and we had a reasonably good response rate. We chose the companies randomly, covering all subcomponents of the industrial sector and the service and trading (retail) sector, which together constitute the “private sector” in Dubai.⁹

To design our questionnaire, we modified those of Colin Drury, Chris Guilding, and Sulaiman to allow us to compare our study findings with those that looked at U.K. and Malaysian companies.¹⁰ We created the questionnaire, which consists of demographics, characteristics of cost accounting tools, and standard costing practices in Dubai, to answer the following questions:

1. Do accounting and finance professionals in Dubai use standard costing or some other method to make management decisions?
2. Which techniques are used in standard costing in relation to standards based on design/engineering studies, observations based on trial runs, work/study techniques, or average historic usage?
3. How are various types of costing standards practiced by Dubai companies with respect to maximum efficiency standards that are achievable but difficult to

attain, average performance standards, or average historic usage?

4. How frequently—monthly, quarterly, semiannually, annually, continuously, or when the variances imply that standards have changed—do companies in Dubai use costing tools for management control?
5. Which methods are employed to investigate a particular variance? For example, are decisions based on managerial judgment, a calculated variance exceeding a specific monetary amount or a given percentage of standards, or through the use of control charts?
6. How important is the analysis of variances (for example, materials prices and sales prices) for control purposes?¹¹

WHAT OUR STUDY FOUND

The largest segment of respondents in Dubai's industrial sector (21%) was engaged in construction activities (see Table 1). The rest were fairly evenly distributed among chemicals/plastics and food (14% each) and engineering and paper/packaging (12% each). Textiles and electronics constituted 11% apiece. As expected, oil and gas companies constituted the least at 5%, which is consistent with Dubai's strategy of diversifying from oil-based

activities to nonoil-based activities because of shrinking oil resources.

Most of the respondents under the service and trading (retail) sector were from nonfinancial companies (58%) vs. 42% of respondents from financial firms.

We found a slightly higher percentage of large industrial companies compared to large service companies, as shown in Table 2. Most companies had assets in the range of 10 million dirham to 500 million dirham (MDhs): 75% in the industrial sector and 81% in the service sector, indicating that most respondents were small to medium-size companies (SMEs).¹²

Table 3 reveals that the majority of companies surveyed (68% in the industrial sector and 77% in the service sector) had fewer than 500 employees. Only 25% of industrial companies and 21% of service companies had more than 500.

Tables 4 and 5 provide a snapshot of the use of standard costing tools in Dubai. The results of the earlier studies by Sulaiman, Guilding, and Drury, which focused on industrial firms, are also reported for comparison purposes. We found that the results for the industrial-sector companies in Dubai (77%) is consistent with those of the other countries studied (73%-

Table 1: **Dubai Company Characteristics (Subsector Type)**

Activities of Dubai Respondents	Percentage
A. Industrial Sector (57 companies)	
1. Chemicals & Plastics	14
2. Engineering	12
3. Textiles	11
4. Food	14
5. Construction	21
6. Paper & Packaging	12
7. Electronics	11
8. Oil & Gas	5
	100
B. Service & Trading Sector (43 companies)	
1. Financial *	42
2. Nonfinancial**	58
	100

*Banks, insurance, financing

**Real estate, hotels, trading (retail), consultancy, education, hospitality

Table 2: **Dubai Company Characteristics (Total Assets in MDhs)**

Total Assets	Industrial Sector		Service Sector	
	Frequency	Percentage	Frequency	Percentage
10 million-100 million	19	33	14	32
101 million-500 million	24	42	21	49
>500 million	9	16	6	14
Missing	5	9	2	5
Total	57	100	43	100

Table 3: **Dubai Company Characteristics (Number of Employees)**

Number of Employees	Industrial Sector		Service Sector	
	Frequency	Percentage	Frequency	Percentage
<100	12	21	11	26
100-500	27	47	22	51
>500	14	25	9	21
Missing	4	7	1	2
Total	57	100	43	100

Table 4: **Extent to Which Companies Use Standard Costing**

	Dubai		Malaysia		New Zealand	U.K.
	Industrial %	Service %	Japanese %	Local %		
Yes	77	39	76	70	73	76
No	23	61	24	30	27	24
Total	100	100	100	100	100	100

76%) but is moderate in contrast with our results for the service sector, implying that standard costing has not become obsolete among either industrial or service companies in Dubai.

Table 5 shows the importance of various standard costing functions in Dubai companies using a seven-point Likert scale, with responses of four or higher evidencing importance and those less than four reflecting less importance.

The cost functions—cost control and performance evaluation, costing inventories, and computing product cost for decision making—were of relatively greater importance to Dubai industrial-sector companies than to their counterparts in Malaysia and the U.K. Moreover, these standard costing functions were of much lower importance in Dubai's service sector. In terms of significance, inventory costing is the key function of standard costing for industries in Dubai, Malaysia, and

Table 5: **Importance of Standard Costing Functions**

Function	Dubai		Malaysia		U.K.
	Industrial %	Service %	Japanese %	Local %	%
1. Cost control and performance evaluation	90**	71	83	82*	72
2. Costing inventories	94*	40	89*	68	80*
3. Computing product cost for decision making	88*	46	83	78	62
4. As an aid to budgeting	78	83*	88	67	69
5. Data processing economies	42	33	75	56	43

Mann-Whitney U test statistic13: *significant at 5% **significant at 10%

Table 6: **Methods Used to Set Labor and Material Standards**

Method	Dubai		Malaysia		U.K.
	Industrial %	Service %	Japanese %	Local %	%
1. Standards based on design/engineering studies	89**	48	81*	46	51*
2. Observations based on trial runs	57	39	53	42	30
3. Work study techniques	44	54	25	26	42
4. Average of historic usage	54	76*	44	63*	44

Mann-Whitney U test statistic: *significant at 5% **significant at 10%

Table 7: **Type of Standards Employed**

Type	Dubai		Malaysia		U.K.
	Industrial %	Service %	Japanese %	Local %	%
1. Maximum-efficiency standards	15	19	33	17	5
2. Achievable but difficult-to-attain standards	30	25	22	31	44
3. Average past performance standards	47	50	39	37	46
4. Other	8	6	6	15	5
Total	100	100	100	100	100

the U.K., and, for the service sector, budgeting is the most significant function. Mann-Whitney U test results reject the null hypothesis of response bias, suggesting that the industrial-sector companies in Dubai use standard costing to a greater extent than the service sector

for the first three functions of standard costing listed in Table 5. Again, in only one instance has this pattern reverted toward the service sector: the use of standard costing as an aid to budgeting. These findings, on average, are consistent with those of other studies of

Table 8: **Frequency of Reviewing Standards**

Frequency	Dubai		Malaysia		U.K.
	Industrial %	Service %	Japanese %	Local %	%
1. Monthly or quarterly	17	33	17	24	14
2. Semiannually	52	40	55	18	9
3. Annually	24	27	11	35	68
4. Continuously	5	0	17	15	6
5. When the variances imply that the standards have changed	2	0	0	8	3
Total	100	100	100	100	100

Table 9: **Approaches for Investing Variances**

Approach	Dubai		Malaysia		U.K.
	Industrial %	Service %	Japanese %	Local %	%
1. No formal method used (decision based on managerial judgment)	39	50	26	22	48
2. Where the variance exceeds a specific monetary amount	19	21	28	33	26
3. Where the variance exceeds a given percentage of standard	35	29	32	33	23
4. Statistical basis using control charts or other statistical method	7	0	14	12	2
Total	100	100	100	100	100

industrial-sector companies in Malaysia and the U.K.

LABOR AND MATERIAL STANDARDS

The mechanisms of setting labor and material standards are reported in Table 6. Nearly nine out of 10 industrial-sector respondents in Dubai employed standards based on design/engineering studies, which is comparable to Japanese companies in Malaysia (81%). These firms appear to be significantly more scientific in their approach to standards setting compared to the service sector in Dubai (48%), local Malaysian companies (46%), and U.K.-based companies (51%). Service-sector companies in Dubai predominantly used “average of historic usage method” (76%).

Dubai companies—both industrial and service-

oriented—favored “average past performance” as the type of standard employed in their costing—47% and 50%, respectively. To be realistic and attainable, however, cost standards should reflect both “past performance” and “expected future performance.” This is supported in our study because companies favored both past performance and expected future performance through design and engineering studies (Table 6).

Dubai industries have become more international in their operations and hence are facing greater competition in global markets. Thus one would expect these companies to review their costing standards frequently to cope with a changing environment where new products are introduced daily. We found that slightly more than half of them (52%) conduct reviews semiannually,

Table 10: **Importance of Particular Variances for Control Purposes**

Approach	Dubai		Malaysia		U.K.
	Industrial %	Service %	Japanese %	Local %	%
1. Material price	90**	80	94	92	69
2. Material usage	81	31	82	93	66
3. Material mix	66	36	46	52	35
4. Material yield	76	33	60	55	52
5. Wage rate	48	67**	82	70	36
6. Labor efficiency	58	67	88	69	65
7. Variable overhead efficiency	74	40	59	71	32
8. Overhead expenditure	83	25	69	73	69
9. Fixed overhead volume	61	23	50	54	28
10. Fixed overhead volume efficiency	42	21	39	52	18
11. Fixed overhead volume capacity	68	31	54	69	18
12. Sales volume	95	81*	100	90	70
13. Sales price	87**	74	92	91	69

Mann-Whitney U test statistic: *significant at 5% **significant at 10%

consistent with Japanese respondents in Malaysia (55%). On the other hand, domestic Malaysian firms and companies in the U.K. were more apt to review their costing standards annually at a rate of 35% and 68%, respectively.¹⁴

When considered together, the results from Tables 4 through 8 signify that companies in Dubai have not abandoned standard costing in their management control decisions. In fact, they have reconfigured existing cost accounting systems to suit their dynamic needs and objectives. These findings are consistent with those from studies of Malaysian companies by Sulaiman and colleagues.

AN EXAMINATION OF VARIANCES

Generally, managers are concerned about variations in costs, materials usage, and sales—especially those outside acceptable ranges. Table 9 shows how companies approach investigating such variances. In Dubai, 39% of industrial companies and 50% of service companies base their costing decisions on “managerial judgment,” compared to roughly half of U.K. companies and one-fourth of local and Japanese companies in Malaysia. On

the other hand, 35% of firms in Dubai’s industrial sector and 29% in its service sector dug deeper for answers when the variance exceeded a given percentage of standard, which is similar to the rates found in the Malaysian and U.K. studies.

Table 10 shows the importance of variances for control purposes. Some 95% of industrial companies in Dubai were extremely sensitive to variances in sales volume, 90% to variances in materials prices, and 87% to variances in sales price. These responses were similar to those in the Malaysian studies. Also, the service sector in Dubai emphasized monitoring variances in sales volume but with wage rates and labor efficiency considered very important as well.

STANDARD COSTING IS ALIVE AND WELL

Our study enables us to add to the existing costing literature in general, and the United Arab Emirates in particular, and to compare our findings with those of previous studies about the manufacturing sector. Our key findings are as follows:

- ◆ Seventy-seven percent of the companies in

Dubai's industrial sector use standard costing compared to 39% in the service sector.

- ◆ "Inventory costing" is the most important function of standard costing for the industrial sector, while "aid to budgeting" is the most prevalent costing function for the service sector.
- ◆ The industrial-sector companies prefer standards based on design/engineering studies, but the service sector favors average historic usage.
- ◆ Forty-five percent of the industrial companies and 44% of service companies in Dubai use "maximum efficiency standards" and "achievable but difficult to attain standards" in practice.
- ◆ Industries in Dubai are most significantly sensitive to variances in materials prices (90%) and sales prices (87%). Although service-sector companies are also sensitive to costs of materials (80%), they are focused on variances in sales volume (81%) and wage rates (67%) as well.

In light of our robust results, we surmise that new costing techniques such as ABC, JIT, the balanced scorecard, and target costing have not made standard costing obsolete, which is consistent with findings of studies conducted in various countries. Companies probably will continue to be attracted to standard costing and variance analysis, regardless of their size, geographical location, and sector. Standard costing's simplicity and affordability, in addition to its flexibility in accommodating state-of-the-art technology, may explain its persistence. Another plausible explanation is that companies use two or more cost accounting methods to build more powerful integrated information systems according to various criteria and different categories.

Also, what about best practices? Even though the majority of chief cost accountants in Dubai earned diplomas from schools in developed countries, it seems that management accounting practices in Dubai have not reached stages 3 (reduction of waste in resources) and 4 (creation of company value) of the International Federation of Accountants' (IFAC) Sustainability Framework. As in Malaysia, the focus in Dubai remains primarily on a mix of cost determination (stage 1) and management planning and control (stage 2). (The Sus-

tainability Framework addresses four perspectives in bringing together all critical areas required to manage a sustainable organization successfully: business strategy, internal management, financial investors, and other stakeholders. The Professional Accountants in Business Committee developed the Framework because it believes that professional accountants need to adapt to a world in which sustainability is the key to long-term business performance and need to understand how, in their diverse functions in organizations, they play a significant role. IFAC notes that, in clearly defining the different facets of sustainability, the Sustainability Framework can help professional accountants grasp all the important aspects of sustainability that they may encounter, directly or indirectly, and that will be important to their organizations. All pertinent information about the Framework can be found at www.ifac.org/PAIB under Sustainability Framework.)

Care must be exercised in generalizing our findings, however. Although the survey was sent to companies of all sizes—measured in terms of total assets or number of employees—the majority of responses were from small and medium-size firms. Thus we cannot expand our findings to large companies. At the academic level, this research shows that standard costing is still a valuable tool for management accounting curricula, at least for the UAE. Nevertheless, it would be interesting to determine whether our findings hold for other Gulf Cooperation Council (GCC) countries. This, along with the identification of contingent factors underlying the persistence of standard costing, is the objective of our future research. ■

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ENDNOTES

- 1 Richard K. Fleischman and Thomas N. Tyson, "The Evolution of Standard Costing in the U.K. and U.S.: From Decision Making to Control," *Abacus*, March 1998, pp. 92-119.
- 2 Don R. Hansen and Maryanne M. Mowen, *Managerial Accounting*, Thomson/South-Western, Mason, Ohio, 2002.
- 3 Mike Lucas, "Standard Costing and Its Role in Today's Manufacturing Environment," *Management Accounting*, April 1997, p. 32.
- 4 Ashish Garg, Debashis Ghosh, James Hudick, and Chuen Nowacki, "Roles and Practices in Management Accounting Today," *Strategic Finance*, July 2003, pp. 30-35. The survey found that more than 76% of members of the Institute of Management Accountants (IMA®) use traditional costing tools such as standard costing.
- 5 David Lyall and Carol Graham, "Managers' Attitudes to Cost Information," *Management Decision*, Vol. 31, Issue 8, 1993, pp. 41-45.
- 6 Chris Guilding, Dawne Lamminmaki, and Colin Drury, "Budgeting and Standard Costing Practices in New Zealand and the United Kingdom," *The International Journal of Accounting*, Vol. 33, Issue 5, 1998, pp. 569-588.
- 7 Maliah Sulaiman, Nik Nazli Nik Ahmad, and Norhayati Mohd Alwi, "Management Accounting Practices in Selected Asian Countries: A Review of the Literature," *Managerial Auditing Journal*, Vol. 19, Issue 4, 2004, pp. 493-508; Maliah Sulaiman, Nik Nazli Nik Ahmad, and Norhayati Mohd Alwi, "Is Standard Costing Obsolete? Empirical Evidence from Malaysia," *Managerial Auditing Journal*, Vol. 20, Issue 2, 2005, pp. 109-124.
- 8 It is worth noting that even if we were to differentiate between foreign and local companies by surveying companies from the free zones and the rest of Dubai, we would have a sampling problem because the number of companies in the free zones is by far lower than the number of companies in the rest of Dubai.
- 9 The survey was conducted from May 2007 to April 2008, and questionnaires were e-mailed to 400 companies listed in the Dubai Chamber of Commerce & Industry (DCCI) 2006-2007 Directory. The response rate was poor even after four reminders within six months. The questionnaires were resent by mail to the heads of the management accounting departments of 270 companies, of which, 140 companies were from the industrial sector and 130 from the services and retail sector. A series of follow-ups resulted in a response rate of 41% and 32%, respectively.
- 10 Colin Drury, Steve Braund, and Paul Osborne, *A Survey of Management Accounting Practices in U.K. Manufacturing Companies*, Chartered Association of Certified Accountants, London, England, 1993.
- 11 A sample of the questionnaire is available from the authors.
- 12 A criterion of ≤500 MDhs is considered for treating such companies as SMEs.
- 13 One of the issues related to the collection of primary data is the likelihood that the survey questionnaires that were received late might indicate no responses or unreliable responses because managers might fill out the questionnaire just for the sake of it because of their preoccupation. In other words, these late responses may not reflect what is actually happening at the firm, let alone the current practice. We tested for the existence of a nonresponse bias using the Mann-Whitney U test by selecting the first 10 and the last 10 responses. We computed the mean response scores for each question to test whether the differences in the means were statistically significant across the two subsamples. Our analysis rejected the null hypothesis to conclude that our data does not suffer from the nonresponse bias.
- 14 This may be due to the fact that the U.K. study was conducted in the beginning of the 1990s when the use of information technology was very limited.

FURTHER READING

- Mohammed Al-Omiri and Colin Drury, "A Survey of Factors Influencing the Choice of Product Costing Systems in U.K. Organizations," *Management Accounting Research*, December 2007, pp. 399-424.
- Trond Bjørnenak, "Diffusion and Accounting: The Case of ABC in Norway," *Management Accounting Research*, March 1997, pp. 3-17.
- Robert A. Bonsack, "Does Activity-Based Costing Replace Standard Costing?" *Journal of Cost Management*, Winter 1991, pp. 46-47.
- James A. Brimson, "An ABC Retrospective: 'Mirror, Mirror on the Wall...'," *Cost Management*, March/April 2007, pp. 45-47.
- Carole B. Cheatham and Leo R. Cheatham, "Redesigning Cost Systems: Is Standard Costing Obsolete?" *Accounting Horizons*, December 1996, pp. 23-31.
- Colin Drury, Steve Braund, and Paul Osborne, *A Survey of Management Accounting Practices in U.K. Manufacturing Companies*, Chartered Association of Certified Accountants, London, England, 1993.
- Richard K. Fleischman and Thomas N. Tyson, "The Evolution of Standard Costing in the U.K. and U.S.: From Decision Making to Control," *Abacus*, March 1998, pp. 92-119.
- Ashish Garg, Debashis Ghosh, James Hudick, and Chuen Nowacki, "Roles and Practices in Management Accounting Today," *Strategic Finance*, July 2003, pp. 30-35.
- Chris Guilding, Dawne Lamminmaki, and Colin Drury, "Budgeting and Standard Costing Practices in New Zealand and the United Kingdom," *The International Journal of Accounting*, May 1998, pp. 569-588.
- Don R. Hansen and Maryanne M. Mowen, *Managerial Accounting*, Thomson/South-Western, Mason, Ohio, 2002.
- Ronald W. Hilton, *Managerial Accounting: Creating Value in a Dynamic Business Environment*, McGraw-Hill/Irwin, Boston, Mass., 2002.
- Toshiro Hiromoto, "Another Hidden Edge: Japanese Management Accounting," *Harvard Business Review*, July-August 1988, pp. 22-26.

- John Innes and Falconer Mitchell, "A Survey of Activity-Based Costing in the U.K.'s Largest Companies," *Management Accounting Research*, June 1995, pp. 137-153.
- International Federation of Accountants, *International Management Accounting Practice Statement: Management Accounting Concepts*, IFAC, New York, N.Y., 1998.
- H. Thomas Johnson, *Relevance Regained: From Top-Down Control to Bottom-Up Empowerment*, Free Press, New York, N.Y., 1992.
- P. L. Joshi, "The International Diffusion of New Management Accounting Practices: The Case of India," *Journal of International Accounting, Auditing and Taxation*, Spring 2001, pp. 85-109.
- H. Thomas Johnson and Robert S. Kaplan, *Relevance Lost: The Rise and Fall of Management Accounting*, Harvard Business School Press, Boston, Mass., 1987.
- Yutaka Kato, "Target Costing Support Systems: Lessons from Leading Japanese Companies," *Management Accounting Research*, March 1993, pp. 33-47.
- Mike Lucas, "Standard Costing and Its Role in Today's Manufacturing Environment," *Management Accounting*, April 1997, pp. 32-34.
- David Lyall and Carol Graham, "Managers' Attitudes to Cost Information," *Management Decision*, Vol. 31, Issue 8, 1993, pp. 41-45.
- Teemu Malmi, "Activity-Based Costing Diffusion Across Organizations: An Exploratory Empirical Analysis of Finnish Firms," *Accounting, Organizations and Society*, November 1999, pp. 649-672.
- Leslie S. Oakes and Paul J. Miranti, Jr., "Louis D. Brandeis and Standard Cost Accounting: A Study of the Construction of Historical Agency," *Accounting, Organizations and Society*, August 1996, pp. 569-586.
- Bernard Pierce and Tony O'Dea, *Management Accounting Practices in Ireland: The Preparers' Perspective*, Dublin City University Business School, Dublin, Ireland, 1998.
- Maliah Sulaiman, Nik Nazli Nik Ahmad, and Norhayati Mohd Alwi, "Management Accounting Practices in Selected Asian Countries: A Review of the Literature," *Managerial Auditing Journal*, Vol. 19, Issue 4, 2004, pp. 493-508.
- Maliah Sulaiman, Nik Nazli Nik Ahmad, and Norhayati Mohd Alwi, "Is Standard Costing Obsolete? Empirical Evidence from Malaysia," *Managerial Auditing Journal*, Vol. 20, Issue 2, 2005, pp. 109-124.
- Anna Szychta, "The Scope of Application of Management Accounting Methods in Polish Enterprises," *Management Accounting Research*, December 2002, pp. 401-418.
- Hema Wijewardena and Anura De Zoysa, "A Comparative Analysis of Management Accounting Practices in Australia and Japan: An Empirical Investigation," *The International Journal of Accounting*, Vol. 34, Issue 1, 1999, pp. 49-70.
- Anura De Zoysa and Siriyama Kanthi Herath, "Standard Costing in Japanese Firms: Reexamination of its Significance in the New Manufacturing Environment," *Industrial Management & Data Systems*, Vol. 107, Issue 2, 2007, pp. 271-283.