MANAGEMENT ACCOUNTING PRACTICES IN EGYPT AND CHINA: A COMPARATIVE STUDY

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Abstract

This study provides a comparative analysis on the adoption rate of management accounting practices in Egypt and China. The results of the analysis have revealed significant differences between the two countries. For example, Chinese firms placed heavier emphasis on budgeting systems while Egyptian companies concentrated more on both performance evaluation and budgeting techniques. The study also reveals that Egyptians rely on traditional techniques but Chinese firms are opting for newer practices perhaps influenced by foreign partnered JVs.

INTRODUCTION

Management accounting provides an important competitive advantage for an organization that helps create better decision-making value and provides an integrating perspective to the management's strategic, operational and financial decisions (Majidul and Jeffrey, 2005). Many organisations are attempting to

change their existing, or implement new innovative, management accounting practices. All of these changes are resulting in new and innovative designs of management accounting systems, based on new management accounting ideas, techniques, processes, and information. These include, for example, activity-based costing and management, target costing, product life-cycle costing and management, value chain accounting, strategic cost management, balanced scorecard, customer profitability analysis, and technology-based methods of measuring, analysing and reporting business activities.

This paper attempts to give a comparative analysis of management accounting practices in Egypt and China. The main purpose of this study is to compare and summarize the differences between Egyptian and Chinese firms' management accounting practices. It is hoped that the result of this research will help reveal whether there is there a gap between theory and the management accounting practices (Scapens, 1988).

Many studies have been conducted and many authors have extended the international accounting literature by their articles and special studies, describing management accounting practices in China and Egypt. Major examples of such studies include those by Bromwich and Wang (1991), Firth (1996) and Chee, Rong-Ruey and Jason (2006), Junjie, Agyenim and Colin (2007) in China, and in Egypt, Sherine and John (2011).

The methodology used by the above research is based on questionnaire surveys and every study focuses on individual countries. Also, Egypt, as one of the transitional economy countries, has never been studied before 2011 by Sherine F. Al and John McLellan which was carried out to determine the current status of adopted management accounting practices by manufacturers and management's analysis of benefits derived from their applications.

Thus, the second objective of this research is to provide a comparative analysis of management accounting techniques in the two countries. Also, it is expected that this paper would contribute

to the literature in the area of management accounting practices in Egypt and China. This would, in part, address Willett *et al.*'s (1997) concern that studies on management accounting practices in this region lag behind studies in financial accounting.

This paper presents extant survey findings on differences between Egyptian and Chinese firms' management accounting practices. In turn, these findings provide the basis to enhance our understanding of the existing accounting knowledge and the currently emerging practice issues. Many of the current tendencies in management accounting research appeared to be inspired by practical challenges and discussions.

Due to differences in culture, political beliefs, economic environment and the country specific characteristics, organisations and manufacturing firms in different companies will be in dissimilar environment. Contingency theory suggests that environmental factors will influence the working and hence the management of organisations and manufacturing firms (Burns & Stalker, 1961; Miller 1972; Huber, 1984). Thus, last but not the least, this study sheds some light on the role of the cultural and heritage of the two countries in the choice of management accounting practices used by organisations and manufacturing firms.

METHODOLOGY

This section provides a description of the methodology used in this paper to compare the adoption rate and benefits derived from adopting different management accounting techniques in the two countries. The innovative management accounting practices could be studied by using several possible theoretical perspectives and empirical research methods.

A study published by Adhikari, Tondkar and Hora (2002) found that there was a trend toward greater use of empirical methodologies in international accounting research and the same conclusion was also drawn by Hans J. and Kathleen E. (2010), whose analysis shows that empirical methods were used in

approximately 76% of the studies, surveys and interviews were used in about 21% of the research and mere 3% of the literature is in descriptive format. In spite of solely using particular techniques to guide and interpret our results of comparison, this paper uses a fusion of survey and descriptive methodology.

The survey data is obtained from an exhaustive search of the academic and practitioner publications of both countries. The main portion of the survey data of China used in this paper belongs from an interesting study by Junjie, Agyenim and Colin (2007), which is based on a sample of 64 Joint Ventures (JVs) and 115 State Owned Enterprises (SOEs) gathered from a questionnaire survey.

The part of the survey data of Egypt is collected from the study of Sherine F. Al and John McLellan (2011), who surveyed 250 Egyptian manufacturing companies. The comparison of the data of different years do make sense, in this case, as it will be evident from the following research that the adoption rate of the newer management accounting techniques is very slow both in Egypt (Sherine and John, 2011) and China (Junjie, Agyenim and Colin, 2007).

The questionnaire was modelled in a similar fashion as undertaken by Chenhall and Langfield-Smith (1998). Since the surveys as conducted by Junjie, Agyenim and Colin (2007) and Sherine F. Al and John McLellan (2011) sampled the individual countries, the common and statistically comparable data was extracted and modelled using concepts of descriptive statistics and probability that are described latter in this very section. A list containing 25 techniques including certain traditional and recently developed management accounting practices is presented. The data, thus extracted, aims at identifying two questions: (1) the extent to which the manufacturing firms of the two countries have adopted the management accounting practices and (2) the benefits received from the implication of those management accounting practices.

Table 2 presents the adoption rate of different management

accounting techniques by the manufacturing firms of the two counties. It is divided into 4 sub-groups, (2.a) product cost system, (2.b) budgeting system, (2.c) performance evaluation and (2.d) planning and control.

SAMPLE CHARACTERISTICS

Table 1 (below) presents a profile of both the countries extracted from the surveys of Junjie, Agyenim and Colin (2007) and Sherine F. Al and John McLellan (2011) for China and Egypt respectively. The number of respondents in both the surveys was quite similar, with 179 usable responses from Chinese firms and 215 from Egyptian firms.

About one-fourth (75%) of the companies in the Chinese sample were in the manufacturing category as opposed to 81 per cent of the Egyptian companies, which include the chemical industry, food & beverages, engineering, textiles & garments, pharmaceuticals, and paper & packing.

When the sample companies were classified by firm-size according to the total number of employees, only 37 per cent of Chinese firms were within the structure ranging from 500 to 2000 employees whereas 65 per cent of Egyptian firms had a number of employees ranging from 500-1250. The number of Chinese firms with more than 2000 employees was quite high i.e. 44 per cent in comparison to the Egyptian firms, i.e. merely 5 per cent. Only 15 per cent of Egyptian companies had been in existence for 10 years or less.

By contrast, 29 per cent of Chinese firms were in the same category. Also, Chinese firms that have been in existence for more than 23 years lead Egyptian firms in the same category by a count of 13 per cent. About half of the Egyptian firms were in existence between 10 and 20 years, which indicates an increasing level of investment in Egypt in the past few years (Sherine F. and John D., 2011).

The Egyptian government began to undertake structural economic reforms in the early 1990s at the request of a few

reformers in government and the recommendations of international economic organisations. The Government was encouraged to undertake reforms after the debt-forgiveness and the financial support it received from Western governments and the Gulf countries following its support of allied action in the liberation of Kuwait in early 1991 from the Iranian invasion (EFG-Herms reports, 2003).

Overall, in terms of the number of employees and organisation age, the Chinese firms were larger than the Egyptian firms.

MODELLING OF SURVEY DATA USING DESCRIPTIVE STATISTICS AND PROBABILITY

a) Adoption Rate

The survey of Junjie, Agyenim and Colin (2007) was based on a sample of 64 JVs and 115 SOEs of China. The adoption rate of different sub-groups, (2.a) product cost system, (2.b) budgeting system, and (2.c) performance evaluation and (2.d) planning and control, of management accounting technique for both JVs and SOEs were obtained as means. A weighted-mean was considered for the respective sub-groups. As the responses in the survey were assessed using a seven-point scale, the adoption rate of a sub-group was calculated as the fraction of the weighted mean out of 7 – for example: consider the following Table 1.

Table 1: Adoption rate of different sub-groups

Serial No.	Sub-groups	JV's_Mean	SOEs_Mean	Weighted-Mean	%Adoption
2.a	Product cost system	4.36	4.52	4.46	63.75
2.b	Budgeting systems	5.03	4.83	4.90	70.02
2.c	Performance evaluation and rewards	4.48	4.32	4.38	62.53
2.d	Planning and control	4.53	4.08	4.24	60.58

Consider Product Cost System,
Weighted Mean of Product Cost System = (4.36*64 + 4.52*115) / 179= 4.46
% Adoption = (4.46*100) / 7 = 63.75

The data on the adoption rate of the Egyptian firms were collected from the survey of Sherine F. Al and John McLellan (2011). The adoption rate of respective management accounting techniques of sub-groups was extracted from the survey of Sherine and John D. (2011).

The sample size in this survey was 215. For calculating the overall adoption rate of the sub-group, an average of the number of firms adopting a particular technique in that subgroup was evaluated. Thus, the adoption rate was equal to the per cent of average number of firms to the total number of firms, i.e., 215 – for example: consider the following Table 2

Table 2: Adoption of product costing systems

Product cost system			
Serial No.	**Management Accounting Practices**	**% Adoption**	**N**
1	Cost-volume-profit/break-even analysis	41	88
2	Product/service profitability analysis	41	88
3	Full (absorption) costing	33	71
4	Variable costing	31	68
5	Product life-cycle analysis	27	59
6	Activity Based costing (ABC)	13	28
7	Target costing	2	4
	Overall Adoption Rate (in %)	**27.01**	

Average Number of Firms adopting a particular technique = (88 + 88 + 71 + 68 + 59 + 28 + 4) / 7 = 58.07
% Adoption = (58.07*100) / 215 = 27.01

b) Benefits Derived

Table 3 shows the benefits derived from the implication of those management accounting practices during the last few years. The data of the Egyptian firms were collected from the survey of Sherine Farouk Abdel Al and John D. McLellan (2011). The management accounting practices were ranked in accordance with the mean. If more than one technique has the same mean then standard deviation was considered for their rankings.

For the part of Chinese firms' data, weighted means were considered for all the management accounting techniques. The standard deviation was evaluated following a probabilistic approach: Let us consider the technique: Activity Based Costing (ABC). From the survey data of Junjie, Agyenim and Colin (2007), the benefits derived from ABC techniques for JVs and SOEs is shown as follows:

Table 3: Benefits derived from ABC costing systems

JVs			**SOEs**			**Total**		
Mean	SD	Variance	Mean	SD	Variance	Mean	SD	Variance
4.00	1.22	1.49	4.00	1.81	3.28	4.00	1.24	1.54

Let the benefit derived for JVs be represented as J, similarly for SOEs as S and the overall benefit as T. Assume J, S and T to be random variables. Thus T can be written in terms of J and S as:
T = a*J + b*S; where 'a' is the fraction of JVs in the total sample i.e., 64/179 and 'b' is the fraction of SOEs in the total sample i.e., 115/179.

Using the theory of Probability:
Variance (T) = (a*a)*Variance (J) + (b*b)*Variance (S) + 2*a*b*Covariance (J, S)

Since the responses were independent for both the JVs and SOEs, thus the benefits derived by the firms belonging to both the category could be assumed to be independent. Thus, the random variables J and S are independent random variables.
Thus, Covariance (J , S) = 0
Now,
Variance (T) = (a*a)*Variance (J) + (b*b)*Variance (S)
For the above example,
Variance (T) = ((64*64)*1.49 + (115*115)*1.54) / (179*179)
Now,
Standard Deviation, SD = sqrt (Variance (T))
The ranking of the techniques is done is a way similar to that of the Egyptian data. The above modelling of Survey data using descriptive statistics and probability is consistent with the conclusions drawn by Michael D. McLellan

Table 4: Profile of the Sample Manufacturing Firms of China and Egypt

China			**Egypt**		
Serial. no.	**Industry Classification**	**Total (%)**	**S. No.**	**Industry Classification**	**Total (%)**
1	Manufacturing	73.30	1	Food & Beverage	7.0
2	Agriculture	1.20	2	Engineering	29.3
3	Financial Services	3.70	3	Textiles & Garments	16.7
4	Transport	4.30	4	Pharmaceutical	5.1
5	General Trade	6.20	5	Chemical	11.6
6	Building and Construction	4.30	6	Building, Refractory, Cement	5.6
7	Information Technology	3.70	7	Agricultural	5.6
8	Other Services	3.10	8	Gas & Mining	4.2
			9	Paper & Packaging	11.2
			10	Milling	3.7
	Total	**99.80**		**Total**	100.0

Serial No.	**No. of Employees**	**Total (%)**	**S. No.**	**No. of Employees**	**Total (%)**
1	Less than 500	25.00	1	Less than 250	9.8
2	500-2000	30.60	2	251 to 500	20.0
3	More than 2000	44.40	3	501 to 750	34.4
			4	751 to 1000	23.7
			5	1001 to 1250	7.0
			6	More than 1250	5.1
	Total	**100.00**		**Total**	100.0

S. No.	**Year Established**	**Total (%)**		**S. No.**	**Organization Age**	**Total (%)**
1	Less than 10 years	29.00		1	Less than 10 years	14.9
2	10-22 years	19.10		2	11 to 20	46.0
3	More than 23 years	51.90		3	21 to 30	22.3
				4	31 to 40	6.5
				5	41 to 50	1.4

				6	more than 50	8.8
	Total	**100.00**			**Total**	99.9

RESULTS AND DISCUSSIONS

a) Adoption of Management Accounting Practices

This section presents a comparative analysis of the results with emphasis placed on differences in Egyptian and Chinese practices.

From the extracted survey data a large difference is witnessed in the adoption rate of different management practices for the two countries. The difference in responses on the use and adoption of budgeting a system, planning and control and product cost system are statistically significant. However, in the case of performance evaluation, there is no statistically significant difference between the two sets of responses. This means that performance evaluations are considered to be an equally important management accounting tool in both countries. Performance measures play a crucial role in translating business strategies into results (Lingle and Schiemann, 1996).

The ranking of sub-groups on the basis of adoption rate indicates that Chinese firms placed heavier emphasis on budgeting systems and the other three are given equal importance while Egyptian companies concentrated more heavily on budgeting system and performance evaluations. The emphasis of Chinese companies on budgeting system suggests that they pay greater attention to tools that are primarily used for planning and controlling costs and preparing financial statements because budgeting techniques in China are the most important financial performance measures in business management (Junjie, Agyenim and Colin, 2007).

By contrast, the emphasis of Egyptian companies on performance evaluation and budgeting system, especially on ROI, budgeting for controlling costs, cash capital budgeting suggest that

they pay greater attention to cost reduction at the planning stage of a new product. Planning helps people to cope with uncertainty because it bridges the gap from where they are to where they want to be in future (Ueno and Wu, 1993). People in a high uncertainty avoidance society prefer more rituals to reduce the level of anxiety (Hofstede, 1980). Since planning is an organisational practice, which serves to reduce ambiguity in the face of certainty, organisations tend to take a long-range perspective towards planning and make extensive use of all budgeting and performance evaluation practices (Junjie, Agyenim and Colin, 2007). This supports the hypothesis # 1 of Junjie, Agyenim and Colin (2007) that "Egyptian firms will make extensive use of budgets, both budgeting for controlling costs and budgeting day-today planning of operations. Capital budgeting will also have a high adoptive rate."

The higher adoption rate of these newer techniques by the Chinese firms could be because of the foreign-partnered JVs, as they tend to adopt management accounting practices to a much greater extent compared to SOEs (without foreign partners). The evidence lends support to the conclusion drawn by Firth (1996) that JVs represent an important vehicle for the transfer of free market management ideas and techniques to business entities in centrally planned socialist economies.

However, in the case of Egyptian firms, the reason behind low adoption of newer techniques could be their high degree of uncertainty avoidance and their long history of heritage. An interesting study by Hofstede (1980) quoted that transitional economic countries like Egypt have strong uncertainty avoidance. This leads to a high degree of anxiety about the future, which restricts them from adopting new management accounting practices. Also, since the Egyptians have a long history of heritage, it takes a longer time for them to change their societal values and practices. Therefore, in the context of advanced practices, Egyptian firms are more likely to be late adopters (Junjie, Agyenim and Colin, 2007).

Chinese firms show an overall adoption rate of 64 per cent for product cost system techniques, in contrast to which Egyptian firms show an overall adoption rate of only 27 per cent. Among the techniques in this sub-group, only cost-volume profit and product/service profitability analysis have adoption rate of 41 per cent for Egyptian firms. The other newer techniques, like ABC, target costing, variable costing, absorption costing and product life-cycle analysis show a relatively less adoption rate.

Another noteworthy difference between management accounting practices of these two countries lies in the adoption rate attached to planning and control. With China showing an adoption rate of 61 per cent, Egyptians have adopted the techniques with only 22 per cent. The Egyptians low adoption rate could be supported with hypothesis # 1 of Junjie, Agyenim and Colin, (2007). But the Chinese high adoption of these techniques could be linked with the results of Scapens (1991). According to his study, techniques like ABM, ABC, strategic-planning, and long-range forecasting are gaining increased popularity among foreign companies. And thus, the uses of these techniques are also witnessed in Chinese JVs (with foreign partners).

Performance evaluation is an important function of management accounting, particularly in companies that have a divisionalized organisational structure, and the degree of adoption of various related techniques. But adoption is not the only condition for deriving benefits from readings of performance. As Joshi (2001) points out, that the real benefits from various performance evaluation practices may be derived over longer periods of time. The most often cited methods used to measure the divisional performance are the return on investment (ROI), the residual income (RI) etc. Table 5 shows that both countries have equally adopted performance evaluation techniques.

Table 5: Adoption rate of management accounting techniques by manufacturing firms of Egypt and China

Product cost system				
		Egypt		**China**
S. No.	**Management Accounting Practices**	**% Adoption**	**N**	
1	Cost-volume-profit/break-even analysis	41	88	-
2	Product/service profitability analysis	41	88	-
3	Full (absorption) costing	33	71	-
4	Variable costing	31	68	-
5	Product life-cycle analysis	27	59	-
6	Activity Based costing (ABC)	13	28	-
7	Target costing	2	4	-
	Overall Adoption Rate (in %)	**27.01**		**63.75**
Budgeting systems				
		Egypt		**China**
S. No.	**Management Accounting Practices**	**% Adoption**	**N**	
1	Budgeting for controlling costs	100	215	-
2	Cash/working capital budgeting	98	211	-
3	Budgeting for coordinating activities across the business units	96	207	-
4	Budgeting for day-to-day operations	91	196	-
5	Budgeting for planning financial position	65	141	-
6	Investment appraisal discounting techniques (e.g., NPV, IRR)	77	167	-
	Overall Adoption Rate (in %)	**88.09**		**70.02**
Performance evaluation				
		Egypt		**China**
S. No.	**Management Accounting Practices**	**% Adoption**	**N**	
1	Budget variance analysis	100	215	-

2	Return on investment (ROI)	96	207	-
3	Controllable profit	86	185	-
4	Residual income	64	139	-
5	Cash flow return on investment	62	135	-
6	Customer-satisfaction surveys	46	99	-
7	Divisional profit	46	99	-
8	Employee attitudes	14	30	-
9	Team performance	27	58	-
	Overall Adoption Rate (in %)	**60.30**		**62.53**
Planning and control				
		Egypt		**China**
S. No.	**Management Accounting Practices**	**% Adoption**	**N**	
1	Strategic planning	31	68	**-**
2	Long-range forecasting	24	53	**-**
3	Activity Based management (ABM)	11	24	**-**
	Overall Adoption Rate (in %)	**22.43**		**60.58**

b) Benefits of Management Accounting Practices

Table 6 lists the benefits received from the implication of management accounting practices by the two countries. The response to this is ranked in accordance with mean. If more than one technique has the same mean then standard deviation was considered in the following Table 6.

Table 6: Benefits received by Egypt and China from management accounting practices

		China			Egypt		
S. No.	**Management Accounting Techniques**	**Mean**	**SD**	**Rank**	**Mean**	**SD**	**Rank**
1	Budgeting for Controlling Costs	5.18	0.93	1	3.00	0.00	1
2	Budgeting for Coordinating Activities across the Business Units	4.95	1.01	2	2.93	0.36	2
3	Target Costing	4.90	1.02	3	1.52	0.88	33
4	Budgeting for Planning Financial Position	4.81	1.00	4	2.54	0.84	11
5	Budgeting for Day-to-Day Operations	4.78	0.92	5	3.00	0.00	1
6	Cash/Working Capital Budgeting	4.76	1.03	6	2.61	0.79	7
7	Customer-Satisfaction Surveys	4.68	1.04	7	2.87	0.49	3
8	Cost-Volume-Profit/Break-Even Analysis	4.65	1.12	8	2.55	0.83	10
9	Full (Absorption) Costing	4.55	0.93	9	2.59	0.81	9
10	Activity Based Management (ABM)	4.54	1.11	10	1.67	0.95	28
11	Divisional Profit	4.51	1.21	11	2.60	0.80	8
12	Return on Investment (ROI)	4.50	1.09	12	3.00	0.00	1
13	Employee Attitudes	4.45	0.97	13	1.70	0.96	27
14	Controllable Profit	4.44	1.13	14	2.10	1.00	19
15	Product/Service Profitability Analysis	4.42	1.14	15	2.68	0.73	5
16	Budget Variance Analysis	4.40	1.07	16	2.33	0.95	14
17	Variable Costing	4.32	1.14	17	1.89	1.00	22
18	Long-Range Forecasting	4.31	1.06	18	2.32	0.95	15
19	Team Performance	4.30	1.04	19	2.04	1.00	20
20	Strategic Planning	4.30	1.26	20	2.62	0.79	6
21	Product Life-Cycle	4.14	1.26	21	2.42	0.91	13

	Analysis						
22	Investment Appraisal Discounting Techniques (e.g., NPV, IRR)	4.11	1.20	22	3.00	0.00	1
23	Cash Flow Return on Investment	4.11	1.22	23	1.79	0.98	24
24	Activity Based Costing (ABC)	4.00	1.24	24	1.98	1.00	21
25	Residual Income	3.94	1.23	25	2.17	0.99	18

Techniques like budgeting for controlling costs and budgeting for coordinating activities across the business units are considered equally important by both countries. However, for Egyptians, investment appraisal discounting techniques, budgeting for day-to-day operations and ROI are also considered as high benefit techniques. This indicates that Egyptian manufacturing organisations believe in the benefits derived from using these traditional practices which fit well for their unstable economy. This supports hypothesis # 1 of Junjie, Agyenim and Colin (2007).

By contrast, the aforementioned accounting techniques are ranked low by the Chinese firms. Most of the recently developed strategically focused and market oriented practices such as ABM tend to be perceived as more beneficial for Chinese firms rather than by Egyptian firms. This indicates than Chinese firms, though with a slow adoption speed, are opting the newer Western management accounting practices and getting significant benefits out of it.

To succeed in the present dynamic business environment, companies should link their strategies to quality improvement, increased flexibility in meeting customers' individual requirements, reduced inventories and production costs (Lucas, 1997). Thus, non-financial accounting measures such as customer satisfaction surveys, employee attitudes, team performance etc. are also gaining popularity among these two countries. However, the adoption rate of these techniques is rather slow. Only customer satisfaction survey is ranked high by both countries with Egyptian firms giving

more importance to it than the Chinese firms.

Another noteworthy response in Table 6 is related to strategic planning. This practice is ranked 6 by the Egyptian firms in contrast to the Chinese firms, which have ranked it in the 20th position. This indicates that Egyptian manufacturing organisations have started recognising the benefits of some advanced practices (Junjie, Agyenim and Colin, 2007).

c) Cultural Impact on Management Accounting Practices

It has been observed by several authors that accounting practices are heavily influenced by the unique cultural attributes of the country and the different nature of management accountants (Takemura & Takamatsu, 1987; Taketera & Yamamoto, 1989; Wijewardena & Cooray, 1995). This issue is pertinent primarily because it has often been cited that accounting is a product of environment (Choi and Mueller, 1992; Perera, 1989; Radebaugh and Gray, 1993). As accounting is, if indeed, shaped by environment, then one would expect there to be differences emerging in the adoption of the various management accounting tools by companies in different countries.

In this case of Egypt and China also, management norms and organisational cultural differences play a significant role in adoption of different management accounting practices. Cultural differences affect people in terms of their thinking and behaviour, and therefore influence managerial philosophy and practice (Hofstede, 1984; Gray, 1988; Perera, 1989, Chow, Chau and Gray, 1995). Chinese traditional management norms also impede the adoption of formal, transparent processes and control of management (Junjie, Agyenim and Colin, 2007). Likewise for Egypt, the study by Sherine F. Al and John McLellan (2011) hypothesizes that the culture and heritage of Egypt plays a role in the choice of management accounting practices used by organisations. Egyptians have a long history of heritage; it takes longer time for them to change their societal values and practices.

CONCLUSION

It is important to mention a limitation of this study before any conclusion may be drawn. The survey data compared in this paper is not of the same year nevertheless the comparison makes sense as the adoption rate of the management accounting techniques are very slow. Despite this imperfection, the result of this study provides important insights into differences in management accounting practices of Egypt and China.

The most striking difference revealed by the survey data is that Chinese firms placed heavier emphasis on budgeting systems and the other three techniques are given equal importance, while Egyptian companies concentrated more heavily on budgeting system as well as performance evaluations. The emphasis of Chinese companies on budgeting system suggests that they pay greater attention to tools that are primarily used for planning and controlling costs and preparing financial statements. By contrast, the emphasis of Egyptian companies on performance evaluation and budgeting system especially on ROI, budgeting for controlling costs, cash capital budgeting suggest that they pay greater attention to cost reduction at the planning stage of a new product.

Overall, the evidence reviewed suggests that the use of contemporary management accounting tools is lacking in both countries. The Egyptian manufacturing organisations rely heavily on traditional management accounting practices, while the adoption rates of recently developed or advanced practices are rather low and slow (Junjie, Agyenim and Colin, 2007). However, Chinese firms show a greater adoption rate of the newer techniques compared to Egyptian firms. This could be because of the foreign partnered JVs and the role of foreign administration in management of JVs. These findings are consistent with other studies in developing countries. Tho *et al.* (1980) provide various reasons as to why traditional management accounting practices are still widely used in developing countries: the lack of awareness of new techniques, the lack of expertise and perhaps, more

importantly, the lack of top management support. Additional factors include the high cost of implementation and the fact that there simply was "no reason to change" from the traditional technique to the new tool.

All the studies reviewed here are largely exploratory in nature and the results are generally descriptive. Ultimately there is a need for such studies to be grounded in theory. To this end, detailed case studies on management accounting in practice may have to be undertaken. Case studies, according to Scapens (1988), will enable research to: describe management accounting systems, explore those systems are used, attempt to identify best practices and explain the determinants of existing practices (p. 28).

Additionally, a rigorous statistical analysis of results of earlier studies is lacking. There is a need for a fresh survey to be conducted to examine specific factors as to why firms are not adopting newly developed management accounting tools. Further questions which should be addressed are: what are the obstacles to implement such techniques? Is culture a predominant factor? Are current management accounting practices being strongly driven by factors at the macro level, where considerable global pressures lead to similar practices across countries (Grandlund and Lukka, 1998)? Consequently, the global similarities perspective of management accounting practices is certainly an area that is worth examining.

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