

## Development of an Effective Cost Management Method for Malaysian SMEs

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### **Abstract**

*Cost management is essential to manufacturing company for sustaining market share, competitive position and profit growth. In the past, many SMEs had made mistakes during their cost management process. Two of these major mistakes were due to lack of knowledge in cost management and not knowing the right technique to use for monitoring all production costs. This paper has two main objectives: first, to present a case study on cost management method at a local SME; and secondly, to point out their mistakes and weaknesses of its cost management system. Later, the authors will present a case study of an effective cost management method practiced by a Japanese multinational company. Based on the findings of both case studies, the authors shall propose an effective costing management method that may be applicable to local SMEs for monitoring their production costs. The authors believed this costing management method will be able to help local SMEs to improve their cost management system, which eventually giving them the opportunity to achieve more profitable sales and sustainable competitive position in global market place.*

**Keywords:** *cost, management, effective, SMEs, competitiveness*

### **1 Introduction**

Cost management is essential to manufacturing company in order to maintain profitable sales to the company and sustainable position in current competitive global market. An effective cost management will enhance a company competitiveness and survival of its business especially during current global economic crisis. Practising continuous cost improvement activities had helped many companies to become more competitive and ability to survive.

The objectives of this study are to compare the cost management systems in a local SME, Company X and the Japanese MNC, Company Y and to determine the mistakes and weaknesses of local SME. This study also present an effective cost management system adopted from Company Y. A comparison study is a good technique to study and adopt MNCs costing method to improve local SMEs. Comparison study also been used in this paper to encourage and familiarize more researchers and manufacturers with this technique. Due to the lack of knowledge in cost management, many SMEs were making mistakes during managing the cost. Each manufacturer or company need to control and monitor all the costs incurred during a manufacturing process. However,

some SMEs do not know how or having the right technique in monitoring all costs which are involved in production. Having conducting cost improvement activities without studying the cost that significantly affecting the performance in terms of sales and profit may results in high production cost. Previous research made by Hamid et al. [1] had shown that SMEs are commonly facing with financial issues. Hopefully, this method will be able to help local SMEs improve their cost managing system, eventually giving SMEs opportunity to achieve more profitable sales and sustainable position in current competitive global market.

### **2 Literature review**

SMEs play a very important role in the country's economic development. Saleh & Ndubisi [2] in their study cited a statistic from SMIDEC Malaysia for year 2006. This statistic shows that 93.8 % of companies in the manufacturing sector are SMEs and they contributed 27.3% to total manufacturing output, 25.8 % to value-added production, own 27.6 % of fixed assets and employ 38.9% of the country's workforce. It is forecasted that by 2020, the value-

added products from SMEs will be worth RM 120 billion or 50% of total production in the manufacturing sector. Due to these reasons, it is why the authors believe that it is crucial to focus research on improving local SME performances. Referring to Table 1, it shows the financial issues faced by the SMEs. These problems illustrate how weak and inefficient cost management and control in local SMEs [1].

**Table 1:** Financial problems faced by SMEs

Financial problem	Percentage (%)
Lack of capital	22.3
Poor financial record	16.5
High product cost	36.9
High overhead cost	26.2
Overdue account receivables	24.3
Difficulties in obtaining loans	17.5

Source: Hamid et al. [1]

In the study made by Harri et al. [3] for the past few years have seen rising interest in network economy. The first reason is globalization. The world has been shrunk by information technology and open economies. The second reason is that companies have to take care of costs to meet the descending price rate of the market. Competition in the mature lines of business especially requires continuous productivity improvements. A firm that fails to reduce costs as rapidly as its competitors will find its profit margins squeezed and its existence threatened. The competitive environment demands the development of sophisticated cost management practices to keep costs down [3].

In a study made by Govindarajan and Shank [4], strategic cost management can be defined as the use of cost information to help formulate and communicate strategies, to carry out tactics that implement those strategies and finally to develop and implement controls that monitor success at achieving strategic objectives.

While total cost management (TCM) is a business paradigm for managing all company resources and the activities that consume those resources with a focus on stimulating and managing changes [5]. In the study also explains the TCM paradigm. Companies can consider the entire environmental

impact of their products by looking for substitutes for inputs that are hazardous and for processes that can reduce the generation of waste. TCM offers a systematic approach to continuously improve operations and reduce waste generation throughout the product life cycle. Firms will find such integration desirable to reduce costs, reduce liability, and minimize adverse community concerns over their operations.

### 3 Methodology

Case study methodology was used in this research. This study will formulate an effective cost management which is adopted from Company Y through a comparison study. Data collection will be based on a sample of cash flow sheet and profit loss statement by Company X. Study of cost management will be based on these sheets. As for comparison, a production costing sheet used Company Y had been used. Analyzing a sample cash flow sheet and profit loss statement provided by Company X, a few weaknesses of cost management and cost control method in the company is being identified. In addition, the authors shall conduct a structured interview with a few of the top management in Company X. Further in this process, a production costing sheet currently used by Company Y will be use as part of comparison process to adapt this cost control method in SMEs. This too will be supported by interview made with a few top management personnel in Company Y. Through the comparison study and interpreting a production costing sheet, it was found that various costs were measured and monitored continuously in order to maintain better control of production and manufacturing expenditure.

### 4 Results and Discussion

#### 4.1 Introduction

The results of the case study will be separated into two sections. First is analysing and reviewing the weaknesses found in the sample of costing sheets used in Company X. By analysing these costing sheets, it will provide the authors the understanding on the cost management implementation in this SME Company.

Secondly, analyse and review the good points found in a sample of production costing sheet used by Company Y. Through this analysis, the authors were able to understand good practices on cost management in this MNC.

## **4.2 Analysis of Company X**

### *4.2.1 Cash flow sheet*

Figure 1 shows a sample of Cash Flow Sheet used by Company X to project its cash flow expectation. This Cash Flow Sheet divided into 3 sections, which comprise of the following:

- Section 1 – Cash Inflow
- Section 2 – Cash Outflow
- Section 3 – Net Cash Flow

Cash inflow involves operating activities, which produce earning of income and sales for the company. In Figure 1, Cash inflow activities are includes the trade debtors, sales of scrap, fixed deposit interest and other sales.

While cash outflow activities involved supporting and financing major processes such as operational and administration. Cash outflow activities for operational are consist of trade supplies, creditors, old debt, ageing and wages. As for administration, cash outflow activities includes administration matters, inter company, dividend and taxes.

Once the cash inflow and outflow estimates were developed, later the net cash flow can be determined.

### *4.2.2 Profit and loss statement (P&L)*

P&L statement also known as a Statement of Profit and Loss, or an Income Statement or an Income and Expense Statement. In Company X, Profit and Loss Statement is a financial statement that summarizes the revenues, costs and expenses incurred during a specific period. These records provide information that shows the ability of Company X to generate profit by increasing revenue and reducing costs.

The statement of profit and loss follows a general form, begins with an entry for revenue and subtracts from revenue the costs of running the business, including cost of goods sold, operating expenses, tax expenses and interest expenses. The bottom line (literally and figuratively) is net income (profit).

Revenue would be from the total sales of product, new project sales and sales of scrap iron. Meanwhile, cost incurred are comprise of cost of goods sold, production cost, sales tax, and other overheads such as administration expenses, bank charges, bonus for employees, company vehicles expenses, machine depreciation, management fees, building maintenance, office equipment maintenances, Collateralized Loan Obligation profit, management

royalty, medical fees, professional audit fees, security expenses and utilities expenses.

## **4.3 Review and discussion of Company X**

The usage of Cash Flow Sheet together with Profit and Loss Statement as part of managing manufacturing cost is a good technique and practice used by Company X to monitor the performance of its company. However, there are weaknesses found in this cost managing technique. Cash Flow Sheet and Profit Loss Statement only allow us to monitor overall expenses in and out of the company without focusing on the cost or expenses that are critical or directly influencing the performance of the company. Improvement activity cost conducted may not be focusing the right problem because actual costs incurred to solve the problems was not shown clearly in both Cash Flow Sheet and Profit and Loss Statement.

Based on interviews made with a few management personnel in Company X, the authors found that Company X sales and income were very dependent on its customer demand volume. This means that the more quantity of product required by its customer, the higher sales volume would be for Company X. Company X also practises the concept of the more type of products being produced by the company the better its sales would be. In terms of cost improvement, the company believes cost is improving when more types of products produced at higher volume with lower rejection or defects rates.

The most obvious weakness in this cost management technique can be seen when Company X's customer unable to request high volume of product. Demand of product may decrease eventually, hence results in decreasing sales for the company. This would jeopardise the company cash flow especially when Company X overhead costs remain the same, regardless how much or less its sales value would be. Since Company X depends on volume and sales from its customer, the company has to bare and sustain the production cost that they have invested previously such as increasing number of workers, number of machines, working hours through overtime and increasing consumption of its material to cope with its high volume demand from its customer.

In the long term Company X may need to cope with the burden of having high overhead, since there is no effective cost monitoring technique is being practice for its cost management system.

#### **4.4 Analysis of Company Y**

In Company Y, the usage of Production Costing Sheet is essential to help production and operation to monitor closely the cost that had incurred during the production of its product. Figure 2 shows an example of a Production Costing Sheet currently used in Company Y for every product produced.

#### **4.5 Review and discussion on Company Y**

Referring to Figure 2, the authors had conducted an analysis on the sample of Production Costing Sheet. It shows that this costing method measured and monitored on the usage of material and the cost involved. It were also observed that staff usage and number of persons required for every process, number of processes involved to complete a product, usage of processing time and its processing cost in manufacturing for a product.

Generally, estimates for the material, product cycle time, number of processes, number of staff and the processing costs was done at product development stage. Meanwhile, Company Y as shown in Figure 2 use Production Costing Sheet for monitoring every possible cost incurred during the actual product manufacturing.

In general, Production Costing Sheet helps production managers by giving them the overall data on the performance of cost for each product. For example, the Production Costing Sheet stated process yield rate on every process junction. Process yield rate are quality performance of a product. In other words, if a process has a high yield rate that means it is able to manufacture better quality products. Most of the materials used can also affect the process yield rate. It shows that if process yield rate are lower, it means more materials are required to be use in order to meet the quantity demand. More defects are been produced with respect to lower and incompetent process yield. Such situation will involve more materials to be use, hence giving an additional

increment on material cost due to higher consumption.

In addition, we also need to consider the cycle time for each process. Through this cycle time, processing cost is been calculated and monitored throughout the manufacturing process. For example; if a process involves high cycle time, the cost of processing will also increase. Most Japanese MNCs practices work study, lean manufacturing, and time study to improve and shorten processing time. Some would consider on turning the process into an automated line to reduce time and usage of human employees. These are some examples on how to improve cost in the production line.

The Production Costing Sheet shown in Figure 2 can also be use for monitoring human workers usage. It is widely known that the more human workers are required to perform the job in a process, the hourly rate and cost would increase. Overall, the Production Costing Sheet give a good view on what type of cost and how much cost are being used in term of material, processing hour, manpower usage and process yield rate.

In the production department, this Production Costing Sheets helps manager to focus and pinpoint on which item that incurred most cost to the production. Cost improvements made based on the result shown by the Production Costing Sheet because these items and cost can have direct influence on the profit or loss made by the product produced.

In Company Y, the Production Costing Sheet is one of the effective cost managing techniques implemented in order to improve cost, hence generating better profit and sales. Both company, X and Y, use Cash Flow Sheet and Profit and Loss Statement as part of their cost managing tools. However, as an addition, Company Y develops and uses Production Costing Sheet as a supportive tool to control and monitor cost more effectively in its product manufacturing section.

ABC SDN BHD													
CASH FLOW PROJECTION 2008													
TRANSACTIONS	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	TOTAL
<b>CASH-IN FLOW</b>													
<b>OPERATING ACTIVITIES</b>													
Trade Debtors	4,849,911	4,518,679	4,413,402	4,791,588	5,013,722	5,013,936	5,425,227	5,475,359	5,418,666	5,407,546	5,379,379	5,404,408	61,111,824
Other Sales- Scrap	35,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000	420,000
Fixed Deposit Interest	0	0	0	0	0	0	0	0	0	0	0	0	0
Others	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>TOTAL (A)</b>	<b>4,884,911</b>	<b>4,553,679</b>	<b>4,448,402</b>	<b>4,826,588</b>	<b>5,048,722</b>	<b>5,048,936</b>	<b>5,460,227</b>	<b>5,510,359</b>	<b>5,453,666</b>	<b>5,442,546</b>	<b>5,414,379</b>	<b>5,439,408</b>	<b>61,531,824</b>
<b>Minus- CASH OUTFLOW</b>													
<b>OPERATING ACTIVITIES</b>													
<b>Production Cost</b>													
Trade Suppliers	4,195,841	4,211,964	4,326,967	4,323,435	4,217,990	4,123,955	4,133,175	4,116,216	4,132,016	4,135,446	4,125,035	4,125,282	50,167,321
Other Creditors	0	0	0	0	0	0	0	0	0	0	0	0	0
Old Debt Ageing	375,000	375,000	375,000	375,000	375,000	375,000	375,000	375,000	375,000	375,000	375,000	350,000	4,475,000
Wages	350,600	350,600	350,600	350,600	350,600	350,600	350,600	350,600	350,600	350,600	350,600	350,600	4,207,200
<b>SUB-TOTAL</b>	<b>4,921,441</b>	<b>4,937,564</b>	<b>5,052,567</b>	<b>5,049,035</b>	<b>4,943,590</b>	<b>4,849,555</b>	<b>4,858,775</b>	<b>4,841,816</b>	<b>4,857,616</b>	<b>4,861,046</b>	<b>4,850,635</b>	<b>4,825,882</b>	<b>58,849,521</b>
<b>Admin</b>													
Admin Matters	261,418	278,740	267,762	283,463	282,893	261,426	260,187	268,349	272,712	281,192	288,662	236,552	3,243,361
Intercompany	0	0	0	0	0	0	0	0	0	0	0	0	0
Dividend	0	0	0	0	0	0	0	0	0	0	0	0	0
Tax	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>SUB-TOTAL</b>	<b>261,418</b>	<b>278,740</b>	<b>267,762</b>	<b>283,463</b>	<b>282,893</b>	<b>261,426</b>	<b>260,187</b>	<b>268,349</b>	<b>272,712</b>	<b>281,192</b>	<b>288,662</b>	<b>236,552</b>	<b>3,243,361</b>
<b>TOTAL (B)</b>	<b>5,182,860</b>	<b>5,216,305</b>	<b>5,320,329</b>	<b>5,332,499</b>	<b>5,226,483</b>	<b>5,110,981</b>	<b>5,118,962</b>	<b>5,110,165</b>	<b>5,130,328</b>	<b>5,142,238</b>	<b>5,139,298</b>	<b>5,062,434</b>	<b>62,092,881</b>
<b>NET CASH FLOW FROM OPERATING ACTIVITIES (A) - (B) = (C)</b>	<b>(297,948)</b>	<b>(662,626)</b>	<b>(871,927)</b>	<b>(505,910)</b>	<b>(177,761)</b>	<b>(62,045)</b>	<b>341,265</b>	<b>400,194</b>	<b>323,338</b>	<b>300,308</b>	<b>275,081</b>	<b>376,974</b>	<b>(561,057)</b>

Figure 1: Cash Flow Statement for Company X

MASS PRODUCTION						MOCK		Month:	Nov-08
Drawing No	Colour	YEN	RM	YEN	RM	0.0412	Yes		
CA07124-0701	Silver	212.00	8.74	204.00	8.41	3.3980	USD		
								Man Hour:	45.00
(RM)									
PROCESS		MP	C/T	Y.Rate (%)	Material	M. Cost	Process	P. Cost	Total Cost
Process 1	Child Part A	1	6	100.0	0	0	0.075	0.075	0.075
Process 2		4	11.25	96.6	0	0	0.563	0.582	0.582
	Child Part A			96.6	0.718	0.743	0.931	0.963	1.706
	Child Part B			96.6	0.312	0.323	0.189	0.196	0.519
	Child Part C			96.6	0.153	0.159	0.529	0.547	0.706
	Child Part D			96.6	0.320	0.331	0.202	0.209	0.540
	Child Part E	1	2	96.6	0.516	0.534	0.025	0.026	0.560
Process 3		3	12	96.7		0.000	0.450	0.465	0.465
Process 4		1	4	99.3		0.000	0.050	0.050	0.050
Process 5		1	3	100.0	0.035	0.035	0.038	0.038	0.072
Total					2.054	2.124	3.051	3.152	5.275
Overall					2.054	2.124	3.051	3.152	5.275
Ratio/ Selling price						24.3%		36.1%	60.0%
					Material	Material	Process	Process	
								Target profit	0.10
								Actual Profit/ loss %	33.7%
								Profit/Loss	2.679
								Cost/ pc	5.28
								Target Price	Minus 9%
								Selling Price	7.954
									8.74
								Management Fee: 3%	
								Royalti: 6%	

Figure 2: Production costing sheet for Company Y

## 5 Conclusions

In this study, Company X was used as a case study to identify how it practices cost management system. Through analysing its Cash Flow Sheet and Profit and Loss Statement, it was found that Company X is very dependent on quantity and sales demand from its customers. In Company X, costs controls are based on cash inflow and cash outflow. In another words, the company try to improve sales by reducing any expenses of outflow cash either from operational or administration aspects. It practices a method of cost down or cost cutting on some expenditure to improve its cost consumption. Other method of cost management implemented by Company X was to increase as much as possible the amount of sales through increasing product volume manufactured and number of various products produced. This will lead Company X to invest more on increasing the number of human workers, increasing the number of machines and increasing working hours through overtime. In the long term this may become a burden to this local SME, for example when there is a sudden drop of sales and demand from its customer.

The practise of using Cash Flow Sheet and Profit and Loss Statement is vital to a company. However, it must be supported by other cost management tools and techniques to ensure effective cost monitoring activities is being implemented in the company.

This is the reason why this study had chosen a Japanese MNC as a comparison in order to improve the cost management method in our local SME. In Company Y, besides using Cash Flow Sheet and Profit Loss Statement to support its cost monitoring, it also uses Production Costing Sheet in production. This is to monitor in detail the operational costs that were incurred in every design and product manufacturing stages. The Production Costing Sheet has the same method for product costing used during product development stage. However, this Production Costing Sheet was implemented in production line to monitor the performance of product cost on monthly basis. Cost improvements made based on the result shown by the Production Control Sheet. These improvements were done through methods such as by

implementing Lean Manufacturing, JIT (Just-in-time), Work Study and Time Measurement Study.

In Company Y, the Production Costing Sheet is one of the effective cost management tool implemented in order to improve cost, hence generating better profit and sales. By simplifying the tool's technique and method in Production Costing Sheet, it will able to assist local SMEs to implement and practice effectively to maintain better control of production expenditure, hence generating better profits and sales. By implementing the Production Costing Sheet format introduced by Company Y, it helps Company X to minimize the problems that it had previously faced before and could control the cost in producing their products.

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