

An Exploratory Study of Management Accounting Practices in Industrial Companies in Jordan (Case Study-Industrial Companies-ASE)

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Abstract: This study aimed to investigate the application of the industrial sector companies for the management accounting concepts during the preparation the budgets that recognized by the managerial accounting. Where the main budgets in the management accounting concepts are: Master budget, Financial budget, Cash-Flow budget, Static budget and Operational budget but researcher except the Static budget in this study because it uses for the public and non-profit sectors and this study aims to investigate the industrial sector in ASE-Jordan and all of these companies are profitability. The study relied on a random sample consisting of 20 companies of industrial sector companies in ASE-Amman Stock Exchange and to serve the purpose of this study, researcher distributed questionnaire to several different segments in each company: financial managers, accounts mangers and accountants. This study found that the companies in the industrial sector in Jordan apply the concepts of management accounting during the preparation the several types of budgets but with varying degrees.

Key words: Management accounting, industrial sector, ASE, master budget, Financial budget, Cash-Flow budget, Static budget, Operational budget

INTRODUCTION

Management accounting produces information primarily for internal use by the company's management. The information produced is generally more detailed than that produced for external use to enable effective organization control and the fulfillment of the strategic aims and objectives of the entity. Information may be in the form budgets and forecasts, enabling an enterprise to plan effectively for its future or may include an assessment based on its past performance and results. The form and content of any report produced in the process is purely upon management's discretion. But cost accounting is a branch of management accounting and involves the application of various techniques to monitor and control costs. Its application is more suited to manufacturing concerns.

Managerial accounting reports help small business owners and managers monitor the company's performance and are prepared frequently throughout accounting periods as needed. Depending on the type of project and the time-sensitivity of the information, an owner or manager may request reports quarterly, monthly, weekly or even daily.

And the most important practice in the managerial accounting is the Budget reports which help small business owners analyze their company's performance and if the business is big enough, managers analyze their department's performance and control costs. The estimated budget for the period is usually based on the actual expenses from prior years. If the small business as

a whole or a specific department was substantially over budget in a previous year and cannot find feasible ways to trim costs, the budget for future years may need to be increased to a more accurate level. Owners and managers can also use budget reports to provide incentives to employees. In this case, some of the funds budgeted may be given out up as bonuses to employees for meeting specific financial goals.

Another practice in managerial accounting is cost reports which show expenses for a specific project. They are usually matched with an estimate of revenue so the company can evaluate the job's profitability. This helps identify higher-earning areas of the business so the company can focus its efforts there instead of wasting time and money on jobs with low profit margins. Job cost reports are also used to analyze expenses while the project is in progress so managers can correct areas of waste before the costs escalate.

On the other side, the managerial accounting use the inventory and manufacturing reports to make their manufacturing processes more efficient. These reports generally include items such as inventory waste, hourly labor costs or per-unit overhead costs. The manager can then compare different assembly lines within the company to see where one can improve or to offer bonuses to the best-performing departments.

Managerial accounting approaches a company's financial situation in an operational way, giving information in a manner that supports managers in planning and control procedures. Various budget formats in managerial accounting influence how a manager

forecasts department activity and how he addresses progress or shortfall to meet goals. Companies may use several types of managerial budgets concurrently:

Master budget: A master budget is a comprehensive projection of how management expects to conduct all aspects of business over the budget period, usually a fiscal year. The master budget summarizes projected activity by way of a cash budget, budgeted income statement and budgeted balance sheet. Most master budgets include interrelated budgets from the various departments. Managers typically use these subset budgets to plan and set performance objectives. Master budgets are generally used in larger businesses to keep many managers on the same page.

Operational budgets: The operational budget covers revenues and expenses surrounding the day to day core business of a company. Revenues represent sales of products and services; expenses define the costs of goods sold as well as overhead and administrative costs directly related to producing goods and services. While budgeted annually, operating budgets are usually broken down into smaller reporting periods such as weekly or monthly. Managers compare ongoing results to budget throughout the year, planning and adjusting for variations in revenue.

Cash-flow budget: A cash-flow budget examines the inflows and outflows of cash in a business on a day to day basis. It predicts a company's ability to take in more money than it pays out. Managers monitor cash-flow budgets to pinpoint shortfalls between expenses and sales times when financing may be needed to cover overheads. Cash-flow budgets also suggest production cycles and inventory levels so that a company's resources are available for activity not sitting idle on warehouse shelves.

Financial budget: A financial budget outlines how a business receives and spends money on a corporate scale including revenues from core business plus income and costs from capital expenditures. Managing assets such as property, buildings, investments and major equipment may have a significant effect on the financial health of a company, particularly through the peaks and troughs of daily business. Executive managers use financial budgets to leverage financing and value the company for mergers and public offerings of stock.

Static budget: A static budget contains elements where expenditures remain unchanged with variations to sales levels. Overhead costs represent one type of static budget but these budgets aren't confined to traditional

overhead expenses. Some departments may have a fixed amount of money set in budget to spend and it is up to managers to make sure such amounts are spent without going over-budget. This condition occurs routinely in public and nonprofit sectors where organizations or departments are funded largely by grants.

THE STUDY PROBLEM

The problem of this study arise from the main question in this study: Do the industrial sector's companies in Jordan have adopted all of kinds of budgets that are recognized by management accounting? From this question researcher will try to investigate in the real implementation for the type of the budgets above. But it have to except the last type of these budgets-static budget-because it use for the public and non-profit sectors and this study aim to investigate the reality in the industrial sector in ASE-Jordan and all of these companies are profitability companies.

THE STUDY IMPORTANT

The management accounting so important but in the same time management accounting information is proprietary; public companies are generally not required to disclose management accounting data nor much detail about the systems that generate this information. Typically, companies disclose very little management accounting information to investors and analysts beyond what is imbedded in financial reporting requirements. Even very basic information such as unit sales by major product category or product costs by product type is seldom reported and when it is reported one can be sure that management believes voluntary disclosure of this information will be viewed as "good news" by the marketplace.

Because the reason above researcher tries to access to the company's reports and evaluation the extent of application the different types of the management accounting's budgets.

LITERATURE REVIEW

Managerial accounting uses a variety of tools to make business decisions more rational and more scientific, it is important for radiology managers to know the structure of the costs of a radiology practice: Which are fixed? Which are marginal? How will events, both internal to the organization and external, change them? How can they be controlled? (Lexa *et al.*, 2005).

The service activity costing model helps managers understand the costs of services. It supersedes traditional costing by explicitly considering the costs of both used

and unused service capacity. Managers use service activity costing to develop better models of their cost structures and this in turn will allow more nuanced contract negotiation and evaluation of proposed changes.

There is no shortage of interesting, potentially influential management accounting research questions. From an analysis of published research and practice articles, this study has identified many more than could be reported here. Even where research and practice topics appear to correspond, considerable divergence in questions exists. Identified research questions offer opportunities for ALL persuasions of accounting researchers. Synergies between management accounting and accounting information systems seem particularly obvious and should not be ignored. Furthermore, research methods mastered by financial accountants and auditors can be applied to management accounting research questions. Even with efforts to design practice-oriented management accounting research for publishes ability; challenges to broader participation and publication might remain. Some of the challenges to publishing this type of management accounting research might include lack of institutional knowledge of researchers, reviewers and editors. To be credible, authors must gain relevant knowledge to complement their research method skills. For example, research on management control of information technology and strategic planning should be preceded by knowledge of the three domains in theory and practice. Furthermore, editors and reviewers who want to support publication of practice-oriented research should be both knowledgeable of practice and open minded, particularly with regard to less objective sources of data. However, it does not seem necessary or desirable to lower the bar on theory or methods of analysis to promote more innovative research. In summary, we hope that this study encourages management accounting researchers to take on the challenges of investigating interesting, innovative questions oriented to today's business world and practice of management accounting (Selto and Widener, 2004).

This study's contributions try to develop an empirically based typology of the management accounting functions, drawing on twelve case studies and seventy three interviews and identify four styles of management accounting functions: the discrete, the safeguarding, the partner and the omnipotent management accounting functions (Lambert and Sponem, 2012). We show that these styles are closely linked to the dominant logic in each organization and our findings bring to light a variety of roles tied to the management accounting function. Some of these roles facilitating local decision making or discretely controlling managerial behavior have been previously identified in the literature. Detailed analysis of the work carried out by management accountant's shows that these traditional roles can lead

to both unexpected benefits (e.g., fostering creativity) and unforeseen drawbacks (e.g., drift in governance). It also reveals several unexpected roles centralizing power or socializing managers and offers a more enriched understanding of management accounting practice. Our research confirms that the 'myth' of the management accountant business partner who is close to and heeded by operational managers is not as commonplace as we may be led to believe (Burns and Baldvinsdottir, 2005).

The result of the analysis revealed that management accounting practices in Yogyakarta's manufacturing companies were dominated by traditional management accounting practices, however, the most important practices was differ between medium and big-scale companies (Sunarni, 2013). The most vitally important management accounting practices was profit improvement for medium and budgeting for big-scale. There also significantly difference between the two groups in terms budgeting and fixed assets investment planning. Consistent to the first finding, the budgets were also consider as the most vitally important management accounting tools for those two groups. The traditional management accounting tools were perceived more important rather than the contemporary ones. This finding obviously supports the use of traditional management accounting in manufacturing companies recently. The result findings were in line to research done by Adelegan (2004), Nishimura (2002), Rahaman and Lawrence (2001) and Mahfar and Omar (2004) management accountants in Yogyakarta must change their role become more strategic role rather than administrative or operational role. The result indicated that management accountants in Yogyakarta more emphasizing in traditional roles. Their roles were perceived less important than peers. They have to promote the use of contemporary or advanced management accounting tools in order to enhance the quality of management.

Management accounting change and the changing roles of management accountants has dominated both the professional and academic accounting literature in recent years (Yazdifar and Tsamenyi, 2005). This study aims to contribute to these debates by providing evidence from a sample of management accountants working in both dependent (group) and independent (non-group) organizations in the UK, one thousand (qualified) members of the Chartered Institute of Management Accountants (CIMA), UK were randomly selected from the association's database for a postal survey questionnaire. In all, 279 professionally qualified management accountants in both types of organizations responded to a postal survey questionnaire (58% from dependent and 42% from independent organizations, respectively).

A Mann-Whitney analysis of the responses indicates that while some significant differences exist

between the views of the two groups, these management accountants agree on several of the management accounting practices and the roles of the management accountant investigated. The study provides further insight into MAS and the changing roles of management accountants. It was earlier hypothesized that significant differences would exist in the perceptions between the two groups. However, the weak support for the hypotheses could be explained by the influence of other institutional forces apart from the head office control which is focused on in the study. Thus, it was recognized that other institutional forces are likely to be at play in shaping the perceptions of the management accountants. This is a limitation of the study and future research to study the impacts of other institutional factors is recommended.

This study can affirm that through the detailed analysis performed on the activity on the internal flow in terms of value and quantity, related to the expense distribution and the cost development, management accounting is an important component of the accounting information system with a significant contribution in the management process of an economic entity (Breuer *et al.*, 2013). Based on the above mentioned, our opinion is that the organization of a second accounting circuit is necessary, like the financial accounting as the legislative regulations (Accounting Law No. 82/1991) stipulate the indispensability of its organization. From the empirical studies, we could notice that there are a few companies that organize and conduct management accounting which is especially common in large companies with production profile. We maintain our opinion by the fact that regardless of the activity field, it can have but positive results. Related to the name of the second circuit, management account or managerial accounting, we believe that the latter, i.e., managerial accounting, suits its purpose better, i.e. to provide information necessary for the decisions related to cost reduction. Managerial accounting should not be regarded as useful only to the managers because the management process does not involve only the management of the economic entities but it regards each employee of the entity from the worker to the manager.

THE POPULATION AND THE STUDY SAMPLE

The population of the study: The study population is a group of the industrial sector companies listed in the Amman Stock Exchange ASE-Jordan until the end of fiscal year 2014. And to serve the purposes of this study researcher exclusion any company in this sector is not published sufficient information available on the official website of the Amman Stock Exchange (www.ASE.com.jo).

Table 1: The study sample

Company	Code
PETROCHEMICALS	IPCH
COMPREHENSIVE	INOH
IND./MATCH JEMCO	INMJ
JOR INDSTR CHEM	JOIC
UNIV CHEM IND	UNIC
PREMIER	ACDT
ARAB INVEST PROJ	APCT
JOR PAPER CARDBG	JOPC
PEARL SAN P CONV	PERL
EKBAL PRINT CO.	EKPC
NATL POULTRY	NATP
JORDAN POUL PROC	JPPC
SINIORA	SNRA
ARAB INT'L FOOD	AIFF
DAR ALDAWA DV/TV	DADI
JORDAN PHARMA	JPHM
MID PHARMA IND	MPHA
HAYAT PHAR. IND.	HPIC
JORDAN IND. RES.	JOIR
PHILADELPHIA PHARMA	PHIL

The study sample: Due to the large size of the companies in the industrial sector in ASE, researcher selected a random sample (20 companies) from the study population and these companies have the available published data, budgets and income statement. Table 1 shows the sample of study.

THE STUDY HYPOTHESES

To serve the purposes of the study, researcher put some hypotheses as follow:

The 1st hypothesis: The industrial sector companies listed on the Amman Stock Exchange (ASE) implements preparation the master budget as one of the budget types that recognized by management accounting.

The 2nd hypothesis: The industrial sector companies listed on the Amman Stock Exchange (ASE) implements preparation the financial budget as one of the budget types that recognized by management accounting.

The 3rd hypothesis: The industrial sector companies listed on the Amman Stock Exchange (ASE) implements preparation the cash-flow budget as one of the budget types that recognized by management accounting.

The 4th hypothesis: The industrial sector companies listed on the Amman Stock Exchange (ASE) implements preparation the operational budget as one of the budget types that recognized by management accounting.

THE STUDY MODEL

Figure 1 shows the virtual model for this study:

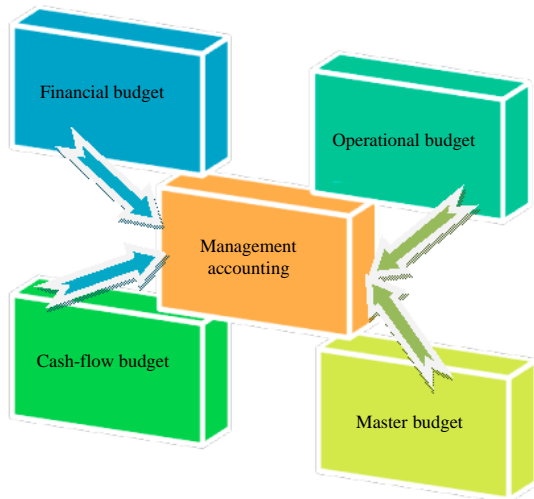


Fig. 1: Virtual model

DATA COLLECTION TOOLS

There are two sources of data in this study. Primary sources were obtained through the design of questionnaire distributed to each of company, it was targeted many positions in each firm as follow:

- The financial manager
- Three accounts managers (chief accountants)
- Three accountants (financial accountant, tax accountants, cost accountant)

A secondary source has been obtained from previous studies in this area and relying on books, magazines, publications and various reports and statistics published on the official site for Amman Stock Exchange ASE-Jordan. Table 2 shows the distribution questionnaire to the targeted group.

Researcher use Cronbach’s alpha coefficient to measure the consistency of the questions in the questionnaire that was introduced to the respondents. Table 3 shows the result of the Cronbach’s alpha coefficient according with the questionnaire paragraphs.

It’s clear from the results shown in Table 3 that the value of Cronbach’s alpha coefficient was high for each area, ranging from 0.809 and 0.920. As well as the value of the alpha coefficient for all the paragraphs of the questionnaire (0.885). As well as the value of constancy was high for each area ranging from 0.900 and 0.959. As well as the value of the stability of all the paragraphs of the questionnaire (0.941), this means that the reliability coefficient is high.

Table 2: Targeted group by distribution questionnaire

The targeted group	No. of positions	No. of companies	Total	Recovering
Financial manager	1	20	20	15
Accounts managers	3	20	60	55
Accountants	3	20	60	50
Total	7	20	140	120*

*It’s clear from the Table 2 that the recovering ratio was (0.86 or 86%)

Table 3: The result of the Cronbach’s alpha coefficient

Areas	No. of paragraph	Cronbach’s alpha coefficient	Constancy*
Master budget	4	0.920	0.959
Financial budget	4	0.902	0.950
Cash-flow budget	4	0.809	0.900
Operational budget	4	0.909	0.953
Total	16	0.885	0.941

DATA GATHERING FROM THE PERSONS WHOM ANSWERED THE QUESTIONNAIRE

Questionnaire result master budget is shown in Table 4. Questionnaire results operational budget is shown in Table 5. Questionnaire result cash-flow budget is given in Table 6. Questionnaire result financial budget is given in Table 7.

Hypotheses testing

Test the 1st hypothesis: The industrial sector companies listed on the Amman Stock Exchange (ASE) implements preparation the master budget as one of the budgets types that recognized by management accounting (Table 8).

From Table 8 above, the value of the level of significance equals 0.000 and <0.05 also the value of the correlation coefficient is equal to 0.779 which indicates the industrial sector companies listed on the Amman Stock Exchange (ASE) implements preparation the master budget as one of the budgets types that recognized by management accounting.

Test the 2nd hypothesis: The industrial sector companies listed on the Amman Stock Exchange (ASE) implements preparation the financial budget as one of the budget types that recognized by management accounting (Table 9).

From Table 9 above, the value of the level of significance equals 0.000 and <0.05 also the value of the correlation coefficient is equal to 0.801, the industrial sector companies listed on the Amman Stock Exchange (ASE) implements preparation the financial budget as one of the budget types that recognized by management accounting.

Test the 3rd hypothesis: The industrial sector companies listed on the Amman Stock Exchange (ASE) implements

Table 4: Questionnaire result (master budget)

Subjects	Arithmetic average	Standard deviation
Sales and production	2.59	1.378
benefit contributions	2.47	1.164
supplies and equipment	2.19	1.195
Inventory and expenses	2.30	1.554

Table 5: Questionnaire result (operational budget)

Subjects	Arithmetic average	Standard deviation
Costs of goods sold	3.20	2.901
Administrative costs directly related to producing goods and services	3.55	2.708
Revenues	3.42	2.051
Expenses define the costs of goods sold	3.89	2.334

Table 6: Questionnaire result (cash-flow budget)

Subjects	Arithmetic average	Standard deviation
Inflows and outflows	2.89	1.420
Shortfalls between expenses and sales	2.78	1.232
Production cycles	2.65	1.215
Inventory levels	2.90	1.765

Table 7: Questionnaire result (financial budget)

Subjects	Arithmetic average	Standard deviation
Revenues	3.59	2.887
Income	3.47	2.121
Costs	2.66	1.411
Capital expenditures	3.69	2.454

Table 8: Result of statistics (1st hypothesis)

Subject	Statistics	The master budget
The budgets types that recognized by management accounting	Correlation coefficient	0.779
	The level of significance	0.000
	The size of the sample	20.000

Table 9: Result of statistics (2nd hypothesis)

Subject	Statistics	Financial budget
The budgets types that recognized by management accounting	Correlation coefficient	0.801
	The level of significance	0.000
	The size of the sample	20.000

Table 10: Result of statistics (3rd hypothesis)

Subject	Statistics	Cash-flow budget
The budgets types that recognized by management accounting	Correlation coefficient	0.691
	The level of significance	0.000
	The size of the sample	20.000

preparation the cash-flow budget as one of the budget types that recognized by management accounting (Table 10).

From Table 10, the value of the level of significance equals 0.000 and <0.05 also the value of the correlation coefficient is equal to 0.691, the industrial sector companies listed on the Amman Stock Exchange (ASE) implements preparation the cash-flow budget as one of the budget types that recognized by management accounting.

Table 11: Result of statistics (4th hypothesis)

Subject	Statistics	Operational budget
The budgets types that recognized by management accounting	Correlation coefficient	0.709
	The level of significance	0.000
	The size of the sample	20.000

Test the 4th hypothesis: The industrial sector companies listed on the Amman Stock Exchange (ASE) implements preparation the operational budget as one of the budget types that recognized by management accounting.

From Table 11 above, the value of the level of significance equals 0.000 and <0.05 also the value of the correlation coefficient is equal to 0.709, the industrial sector companies listed on the Amman Stock Exchange (ASE) implements preparation the operational budget as one of the budget types that recognized by management accounting.

THE STUDY RESULTS

The industrial sector companies listed on the Amman Stock Exchange (ASE) implements preparation the operational budget as one of the budget types that recognized by management accounting.

The industrial sector companies listed on the Amman Stock Exchange (ASE) implements preparation the cash-flow budget as one of the budget types that recognized by management accounting.

The industrial sector companies listed on the Amman Stock Exchange (ASE) implements preparation the financial budget as one of the budget types that recognized by management accounting.

The industrial sector companies listed on the Amman Stock Exchange (ASE) implements preparation the master budget as one of the budget types that recognized by management accounting. The result of this study indicates that lower application of these budgets is in the cash-flow budget case.

In general, the industrial sector companies apply Preparing budgets in accordance with management accounting concepts. Therefore, this result can be generalized in principle to the all industrial sector companies that formed the study population.

CONCLUSION

The industrial sector companies listed on the Amman Stock Exchange (ASE) implements preparation the master budget as one of the budget types that recognized by management accounting. The result of this study indicates that lower application of these budgets is in the cash-flow budget case.

In general, the industrial sector companies apply preparing budgets in accordance with management accounting concepts. Therefore, this result can be generalized in principle to the all industrial sector companies that formed the study population.

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