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*Original Article*

# Budgeting For Management Functions in the Pharmaceutical Enterprises

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***Abstract*** *- Budgeting refers to estimations detailed projections of how to organize and use resources of enterprises in each period to achieve strategic objectives. Budgeting is an important tool helping managers in planning and controlling during the operation process. Enterprises of different sizes and sectors depend heavily on budgeting to achieve their goals because budgeting involves setting specified objectives, reporting actual results, and evaluating performance. This paper aimed at evaluating the current situation of budgeting processes of enterprises; (ii) proposing solutions to help enterprises make more effective budgeting regarding contents, budgeting processes, budget reports. This research applied the case study method and in-depth interview technique with more than 30 cases in 23 pharmaceutical enterprises. The results showed that the consumption budget and the profit budget are most concerned by enterprises (91.3% and 82.6%, respectively). For the purpose of this study, the technical analysis method, the top-down budgeting process, annual budget periods were commonly applied.*

***Keywords*** *- Budget reports, budget, control, decision making, evaluation, flexible estimates, static estimates.*

## I. INTRODUCTION

In order to survive and develop sustainably, enterprises need to have specific business strategies. According toBlumentritt (2006), a budget is a financial plan which is often carried out annually to help managers direct and manage business operations. *Kaplan*(1996) stated that a budget is an estimation; detailed coordination of how to organize and use resources of enterprises in each period to achieve strategic objectives. Otley et al. (2003) provided that budgeting refers to specifying action plans with numbers to help monitor, control and evaluate business activities. Furthermore, budget estimates concretize the business plan of the enterprise with specific data. Almasi (2015), a budget describes an overall picture of operational objectives and strategic objectives. Budgeting is not just about planning expenses and profits, but it also focuses on assigning tasks to departments to achieve the operational and strategic goals of the enterprise. Monitoring, checking and evaluating performance help managers evaluate the efficiency of each department and the causes of inefficiency. Furthermore, budgeting is also a basis for developing and evaluating the management results of the managers at all levels, whereby building the incentive regime for each division in the enterprise (Chemweno, 2009). The budgeting process can enhance cooperation participation among members, departments and divisions in enterprises. Based on a budget, managers can identify the strengths and weaknesses of enterprises, thereby analyzing, calculating, and anticipating future difficulties to take the appropriate and timely measures.

Enterprises, regardless of size, complexity or sector, rely heavily on budgeting to achieve strategic goals (Lorsuwannarat, 2016). Blumentritt (2006) proved that budgeting is the main means of translating an organization's general goals and objectives into specific plans and evaluating the effectiveness of each activity. Gudelis (2011) argued that a well-planned and well-executed budget is likely to boost the growth of a business. Lorsuwannarat (2016) asserted that budgeting is one of the most useful and important management accounting techniques which help a company achieve success if it is properly understood and implemented. It facilitates the efficient use of available capital, improves decision making, and provides empirical measurements of organizational performance. Hope and Fraser (2013) confirmed that budgeting serves as a measurement to evaluate actual performance. By comparing the actual and expected results, managers can identify the causes of problems and propose suitable solutions. Almasi (2015) showed that making budgets is the job of a manager, and budgeting is a tool to control, motivate and evaluate performance. Numerous studies showed the different extents of how budgeting improves the performance of staff and helps to achieve organizational goals.

*Types of budgets*

According to Kaplan et al. (2004), Pandey (2008), and Elhamma (2015), *a static budget* is an estimation that is made according to a certain level of activity, so it is not adjusted or changed during the implementation process, regardless of the changes in sales revenue, or business conditions during the budget period. In fact, the fluctuations of subjective and objective factors often lead to fluctuations of prices, outputs, legal policies, exchange rates, inflation. Therefore, static budgeting is often suitable for enterprises producing products according to orders or having stable production and business situations. *A flexible budget* is an estimation prepared with many different levels of activities in the same operating scope. Flexible budgeting helps managers recognize the fluctuation of expenses when activity levels change. Flexible budgeting is critical in evaluating the effectiveness of actual controlling of expenses and is suitable for enterprises manufacturing products according to market demand.

Regarding the time period, there are two types of budgets which are short-term and long-term budgets, according to Weil and Maher (2005), Fölscher and Gay (2012), Hansen et al. (2014). In particular, *a short-term budget* is mainly made for the one fiscal year period and divided into quarterly, monthly and weekly reports. In other words, short-term budgets are annual estimations of financial sources related to production and business activities of enterprises such as consumption, production, purchases, revenues and expenditures. Short-term budgets are the basis for making operational decisions. *A long-term budget* is an estimation related to the financial sources for the purchases of fixed assets, land, factories and long-term assets associated with the operation of enterprises for many years. Long-term budgets ensure that enterprises have sufficient capital available at the end of a specific budget period to meet the needs of the procurement of new fixed assets. In short, long-term budgets are long-term plans that reflect the strategic objectives and development of the business.

*Budgeting in terms of management functions*

Kaplan (1996), a budgeting system must connect strategies with business plans. A good plan must connect strategies to specific activities. Activities in enterprises with high performance are linked to the cause and effect hierarchy because the achievement of the goals is the result of doing the right things. The process of connecting strategies with estimations is composed of elements of the balanced scorecard and the strategic map, including the following tasks: (i) Establishing strategies using messages such as mission, core values, vision, analysis of the environment, economics and competitors, strategic perspectives based on resources and long-term plans ; (ii) Formulating a strategy including subjects, measures, objectives, ideas and financial plans; (iii) Linking the overall strategy to the strategies of the departments, linking employees' goals and motivation to the strategic goals through organizational structures; (iv) Implementing the plan to link long-term strategies with day-to-day operations, harmonizing the strategies with the plan, upgrading and improving important strategic processes; (v) Managing to achieve the results when developing, planning and implementing a strategy; (vi) Monitoring and adjusting the strategy. Connecting strategies to the budget evaluating the relationship between all elements of the plan and resources is critical for managers. To make effective budgets, enterprises need to pay attention to a number of issues such as the consistency of the database, preparing budgets based on the historical database and flexible budgeting.

To survive and develop, enterprises are required to constantly innovate and improve their management, in which innovation and perfection of budgets play a significant role. Any organization, big or small, must prepare and schedule the use of its budget. However, it is difficult to accurately estimate and reflect the actual potential of the business. Currently, budgets may not play a critical role in controlling and evaluating the performance of enterprises as some enterprises do not associate budgets with their goals, and estimated data is often inappropriate. This study aims to: (i) assess the current situation of preparing budgets of enterprises; (ii) propose solutions to help enterprises make more effective budgets such as regarding the contents, the budgeting process, the budget reports.

## II. LITERATURE REVIEW

Renzioand Wehner (2015) provided that budgeting is one of the tools to evaluate managers' performance. Based on the planning theory, managers' participation in the budgeting process is believed to have a positive impact on improving efficiency. The standard system is the basis for making the most appropriate budgets. Some common types of budgets for businesses are consumption budget, expense budget, money budget.

Hansen and Van (2014), Chemweno (2009) conducted a study on the effect of the budgeting process of enterprises in Kenya. The main objective of this study is to determine the relationship between the budgeting process and budget variance. The study used a questionnaire to collect primary data, and the data were analyzed using SPSS version 17. The results showed that a unit change in budget preparation would lead to a 0.722% change in budget variance; a unit change in budgetary control will lead to a 0.661% change in budget variance; a unit change in budget implementation will lead to a 0.682% change in budget variance. The study concluded that budget preparation, budgetary control, and budget implementation have a significant impact on budget variance. The study recommended that organizations should maintain a good budget process because this process greatly affects the budget variance of businesses. This will help enterprises keep track of revenues, expenses, prices, and cash.

Fölscher and Gay (2012), Seaman and Williams (2011) provided that a master budget is the aggregation of all lower-level budgets, including budgeted financial statements, a cash forecast, and a financing plan. Information on the budget is the basis for evaluating the performance of departments and each individual in the department to better serve the organizing and planning process in the business. Usually, enterprises need to prepare budgets at the beginning of the year for common budgets such as revenues, expenses, prices, and expenditures.

Yang (2010) conducted a study on the impact of the budgeting process on the operation of small and medium-sized enterprises in China. The purpose of the study is to identify how budgeting affects performance, examining the relationship between budgeting and the performance of small and medium-sized enterprises. By using quantitative research method, the study showed that better budgets would promote revenue growth; more sophisticated budgets can lead to profit growth; better budgetary control leads to profit growth; higher participation of managers in budgets results in better management efficiency; state-owned enterprises achieve better non-financial efficiency than small enterprises. The study concluded that the official budgeting process positively affects the performance of small and medium-sized enterprises in China.

Parker and Kyj (2006), Weetman (2006), and Blumentritt (2006) stated that budgets are detailed financial plans that show how the enterprise mobilizes and uses resources in each period which are represented by a system of indicators in the form of quantity and values. Budgets reflect the financial implications of business plans, determining the amount, quantity, and time required to complete a specific job. Standards need to be developed to compare actual results with estimations. Budgets allow the establishment of objectives and standards as well as comparisons of the actual results with the established standards.

Otley et al. (2003) provided that a budget is an action plan prepared by managers in monetary units using certain standards for a given period. A budget can be described as a management plan which is prepared using a long-term action plan and the company's objectives in a certain period of time. Budgets can be prepared using a top-down method or bottom-up method. For budgets related to annual activities, enterprises often choose a bottom-up method. With new activities, budgets are usually established from the top down.

Welmilla(2001) conducted a study on the effect of the budgeting process on the budget efficiency of enterprises in Sri Lanka. The objective of the study is to evaluate the effect of the budgeting process on the performance of enterprises. Data is collected by distributing questionnaires to accountants and budget officers. Data were analyzed using Kruskal Willis's test. The research showed that the current budgeting process is significantly effective to achieve better budget efficiency. The study recommended that stakeholders' awareness of the budget should be raised through workshops. Moreover, the current budgeting process and budgetary control should be improved based on standards to promote budgeting achievements and improve budgetary control.

Murray (1990) showed that the community has not participated in the budgeting process. This view is based on the fact that participation in the decision-making process allows better implementation. The study proposed a set of principles for the participation of employees in the company's budgeting process, especially in terms of financial policies, salaries and personnel.

Hofstede (1968) conducted an empirical study on budgeting practices and budgetary participation. The study concluded that budgetary participation increases the internality of the budgeting targets and can, therefore, motivate managers to work better. The budgetary participation is only satisfactory when individuals feel that they are contributions are appreciated by incorporating them into the budgeting process.

Generally, even though previous studies were conducted in contexts, they all confirmed the role of budgeting in enhancing the performance of enterprises. The budgeting process involves all members of an organization and affects the preparation of the budgeting objectives used to evaluate performance. Budget preparation has a positive effect on management efficiency because when subordinates are involved in the budgeting process, they tend to accept budgeting objectives and exchange information effectively. The key objectives of a budget include: (i) improving the organization's strategic plans, (ii) coordinating activities carried out by its departments, (iii) empowering and effective management of each independent department, (iv) commitment and agreement are the basis for evaluating managerial performance or efficiency.

## III. METHODOLOGY

### *A. Research subjects*

In order to facilitate the implementation of the case study and the reliability of the research results, four pharmaceutical enterprises in Hanoi were interviewed directly. These are enterprises with a length of operation from 10 years or more, including 1 large-scale enterprise 3 small and medium-sized enterprises. For each enterprise, we conducted three in-depth interviews with the director, chief accountant, management accountants, factory manager, sales manager. In addition, 6 enterprises were interviewed over the phone and questionnaires were sent to 13 enterprises. The contents of the interviews focus on the following three main contents: (i) Types of standards and budgets prepared in each unit; (ii) The contents of the budgets, the budget period, the budgeting methods, the budgeting process, and department responsible for budgeting; (iii) How enterprises use budget reports for management purposes.

### *B. Data collection*

The process of interviewing and gathering information is closely aligned with the research questions and research objectives to examine the process of providing and using management accounting information, budgets and reports of enterprises. Some basic questions were predetermined to ensure the contents of the interview. In addition, the answers of respondents were written down and recorded. After the interview, descriptions of the interviews were prepared and sent back to the interviewees to verify and correct the information if there were any differences.

In addition, secondary data was collected from the management reports of 23 enterprises. On that basis, analysis and evaluation were conducted according to the predetermined research objectives. Finally, statistical and analytical methods were used to evaluate and analyze the current situation of budgeting in enterprises.

### *C. Data analysis*

The process of data analysis include: (i) Compiling answers in the same excel file according to predetermined questions, keeping the flexible answers and conducting coding later; (ii) Setting group names; (iii) Data analysis: Filtering data by code, comparing the frequency of each code with a research question to find the relationship with standards and estimations. Repeat this process several times to find and build a connection between the issues that need clarification according to the research objectives.

**Table 1. Characteristics of enterprises participating in the study**

| Classification of enterprises | | Type | Frequency | Percentage (%) |
|---|---|---|---|---|
| Types of enterprises | Joint-stock company | Type 1 | 9 | 39% |
| | Limited liability company | Type 2 | 8 | 35% |
| | Single share-holder limited company | Type 3 | 4 | 17% |
| | Privately-owned company | Type 4 | 2 | 9% |
| | Total | | 23 | 100% |
| Enterprise size | Large enterprise | | 2 | 9% |
| | Small and medium-sized enterprise | | 21 | 91% |
| | Total | | 23 | 100% |
| Business field | Western medicine | | 10 | 43% |
| | Eastern medicine | | 2 | 9% |
| | Cosmetics | | 3 | 13% |
| | Mix | | 4 | 17% |
| | Medical equipment | | 4 | 17% |
| | Total | | 23 | 100% |
| Type of business | Manufacturing pharmaceutical products | | 14 | 61% |
| | Trading pharmaceutical products | | 5 | 22% |
| | Import and distribution | | 4 | 17% |
| | Total | | 23 | 100% |

According to the above table, out of 23 surveyed enterprises, there are 9 joint-stock companies (39%), 8 limited liability companies (35%), 4 single share-holder limited companies (17%) and 2 privately-owned companies (9%). In terms of enterprise size, most companies are small and medium-sized (21; 91%); only 2 large enterprises are state-owned, single shareholder limited liability companies. Regarding the business field, most companies are operating in the field of western medicine (10; 43%), the eastern medicine and cosmetics account for 9% and 13%, respectively. Some companies have other fields, such as providing raw materials for the pharmaceutical industry medical equipment of the pharmaceutical industry (4; 17%). Concerning types of business, most enterprises are manufacturing (14; 61%), followed by trading enterprises (22%), import and distribution (17%). Especially, 4 out of 14 manufacturing companies have factories meeting the requirements of GMP (Good Manufacturing Practices), and the remaining 10 enterprises meet basic standards licensed by the Ministry of Health.

## IV. RESEARCH RESULTS

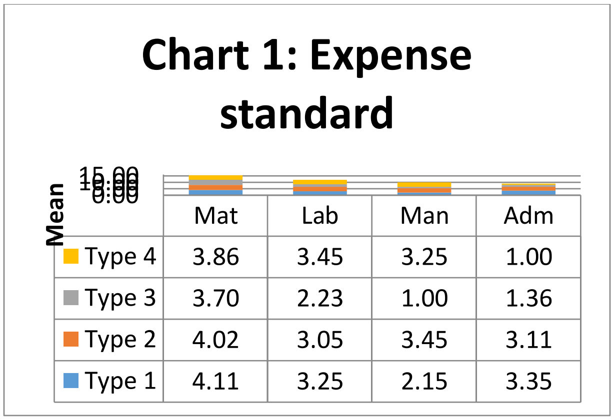
### *A. Establishing standards*

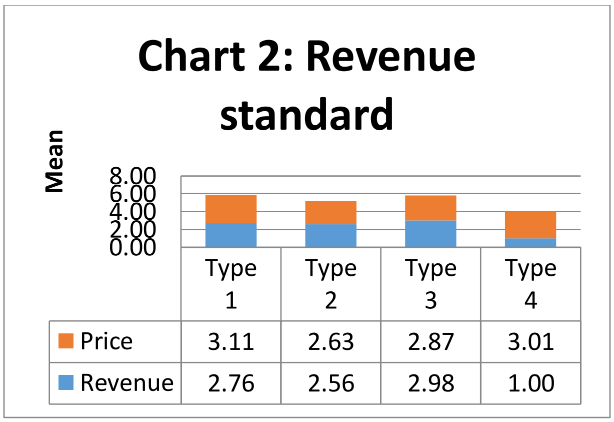
A standard expense is an estimated unit expense, which is used as a standard for each expense element based on the standard resource price and standard resource usage. The process of developing a system of standard expenses requires both professional competence and high responsibility. In fact, the responsibility for setting up the system of standard expenses belongs to management accountants, technical experts and managers. The standard expenses serve as a basis for estimating and benchmarking results and controlling expenses. The specific figures are shown in table 2, chart 1 and chart 2 as follows:

**Table 2. The established standards**

| Standard | Type of company | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Type 1 | | Type 2 | | Type 3 | | Type 4 | | Total | |
| | N = 9 | % | N=8 | % | N=4 | % | N=2 | % | N=23 | % |
| 1. Mat | 9 | 39.1 | 8 | 34.8 | 4 | 17.4 | 2.0 | 8.7 | 23.0 | 100.0 |
| 2. Adm | 6 | 26.1 | 6 | 26.1 | 1 | 4.3 | 0.0 | 0.0 | 13.0 | 56.5 |
| 3. Lab | 6 | 26.1 | 3 | 13.0 | 1 | 4.3 | 2.0 | 8.7 | 12.0 | 52.2 |
| 4. Rev | 3 | 13.0 | 4 | 17.4 | 3 | 13.0 | 0.0 | 0.0 | 10.0 | 43.5 |
| 5. Pri | 3 | 13.0 | 4 | 17.4 | 1 | 4.3 | 1.0 | 4.3 | 9.0 | 39.1 |
| 6. Man | 2 | 8.7 | 2 | 8.7 | 0 | 0.0 | 2.0 | 8.7 | 6.0 | 26.1 |

1. Mat: Standard expense of direct material
2. Adm: Standard expense of selling and administration
3. Lab: Standard expense of direct labour
4. Rev: Standard of revenues
5. Pri: Standard of prices
6. Man: Standard expense of general manufacturing




***Types of standards:***

The standard expenses examined in this study include 4 types: Standard expense of direct materials, the standard expense of selling and administration, the standard expense of direct labour, the standard expense of general manufacturing. Table 1 shows that the number of companies using types of standard expensing decreases in the following order: 100%, 56.5%, 52.2%, 26.1%. The standard expense of direct materials is used the most as 100% of enterprises applied standard expense of direct materials. Standard revenues and standard prices are used less with 43.5% and 39.1%, respectively. In order to find out the assessment of enterprises on each standard, a survey was conducted using a 5-point Likert scale, and the results are shown in chart 1 and 2 as follows: Figure 1 shows the mean values of the standard expense of direct materials, which are used the most by joint-stock companies (mean = 4.11), limited liability companies (mean = 4.02), privately-owned companies (mean = 3.86), and they are the least by limited liability companies (mean = 3.7). This result can be explained by the fact that the research sample includes 61% of manufacturing companies, 22% of trading and manufacturing companies, 17% of import and distribution companies. The standard expense of direct labour is used less than the standard expense of direct materials. This type of standard expense is used the most by privately-owned companies with a mean value of 3.45, while limited companies have a mean value of 3.05 and joint-stock companies have a mean value of 3.25, it is used the least by single shareholder limited liability companies with a mean value of 2.23. The use of the standard expense of general production and administration is in decreasing order, especially single shareholder limited liability companies do not use the standard expense of general production (mean = 1.0), privately-owned companies do not use the standard expense of administration (mean = 1.0).

The standard revenue displayed in figure 2 shows that among the 4 types of enterprises, the standard prices are mostly used by joint-stock companies, with a mean value of 3.11, the remaining companies only use standard prices occasionally, with mean values ranging from 2.56 to 3.01. Especially, the privately-owned enterprises do not use standard revenue with a mean value of 1.0.

*Method of establishing standards:* the main methods for setting standards are economical and technical analysis methods and empirical statistical methods, specifically:

Economic and technical analysis: Pharmaceutical products have a great impact on human health, so it is necessary to strictly follow production processes and formulas. Each different product has a standard expense. Each enterprise establishes its own standard for each product or basic standard. During the production process, the standards can be adjusted accordingly to save expenses or improve product quality. The process of setting standards is often conducted by-product research department. After that, accountants work with the technical department to analyze the capacity of machinery and equipment, analyze the technological process, analyze production behaviour to establish the standard expense of materials for each product. Regarding the standard expense of materials, according to statistics, 100% of enterprises set the standard expense of materials. However, the level of detail of each enterprise is not the same. Some companies set standard expenses for raw materials, including primary and secondary raw materials, such as Hoa Linh Pharmaceutical company. In contrast, Nam Ha Pharmaceutical Joint Stock Company only set standard expenses for key raw materials

Empirical statistics: This method is usually applied to items such as revenues, selling prices, selling expenses, the standard expense of direct labour. In order to establish standard expenses, enterprises often based on historical data to conduct analysis and, thereby setting standards in terms of quantity (the number of raw materials consumed, the number of goods sold, the number of labour hours needed to produce certain Products). Moreover, 43.5% of enterprises apply the standard revenue. In each enterprise, the standard revenue is applied differently. For example, in Hoa Linh Pharmaceutical Company, the standard revenue for each sales staff is 50 million VND/month, the basic salary is 3 million VND/month. Regarding general production expenses, 26.1% of businesses establish the standard expense. The reason is that it is very difficult to establish the standard because it fluctuates frequently. Normally, enterprises only set standards of some expenses, such as the protective work uniform is a set of 3 /person/year. In terms of selling and administration expenses, 13/23 enterprises established the standards (56.5%). For example, in Hoa Linh Pharmaceutical Company, the standard expense of advertising was 250 million VND/month, the standard expense for gas and transportation is 2% of revenue.

### *B. Budgeting*

Budgeting is very important in the corporate management system to measure the performance of long-term goals plans in a certain period of time. However, the actual surveys showed that the budgeting had not been emphasized, the budget implementation is not adequate to service managers. The summary of survey results of Vietnamese pharmaceutical enterprises is shown in tables 3, charts 3 and 4.

**Table 3. Types of established budgets**

| Budget | Type of company | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Type 1 | | Type 2 | | Type 3 | | Type 4 | | Total | |
| | N = 9 | % | N = 8 | % | N = 4 | % | N = 2 | % | N = 23 | % |
| 1. Con | 8 | 34.8 | 7 | 30.4 | 4 | 17.4 | 2.0 | 8.7 | 21.0 | 91.3 |
| 2. Pro | 8 | 34.8 | 7 | 30.4 | 2 | 8.7 | 2.0 | 8.7 | 19.0 | 82.6 |
| 3. Prod | 6 | 26.1 | 6 | 26.1 | 3 | 13.0 | 2.0 | 8.7 | 17.0 | 73.9 |
| 4. Adm | 5 | 21.7 | 6 | 26.1 | 2 | 8.7 | 0.0 | 0.0 | 13.0 | 56.5 |
| 5. Mat | 4 | 17.4 | 5 | 21.7 | 2 | 8.7 | 0.0 | 0.0 | 11.0 | 47.8 |
| 6. Lab | 4 | 17.4 | 5 | 21.7 | 2 | 8.7 | 0.0 | 0.0 | 11.0 | 47.8 |
| 7. Man | 4 | 17.4 | 5 | 21.7 | 2 | 8.7 | 0.0 | 0.0 | 11.0 | 47.8 |

1. Con: Consumption budget

2. Pro: Profit budget

3. Prod: Production budget

4. Adm: Budget for sales and administration

5. Mat: Budget for direct materials

6. Lab: Budget for direct labour

7. Man: Budget for general manufacturing

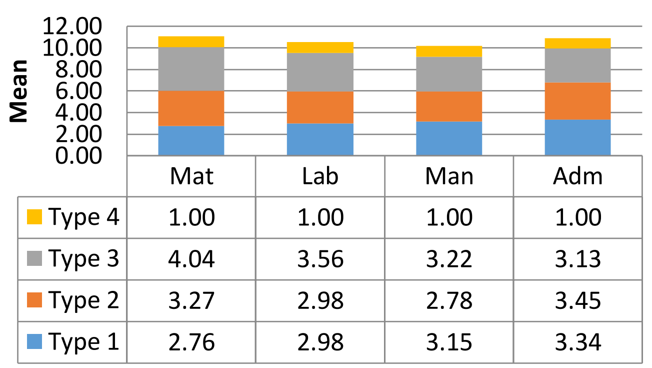


Chart 3: Expense budget

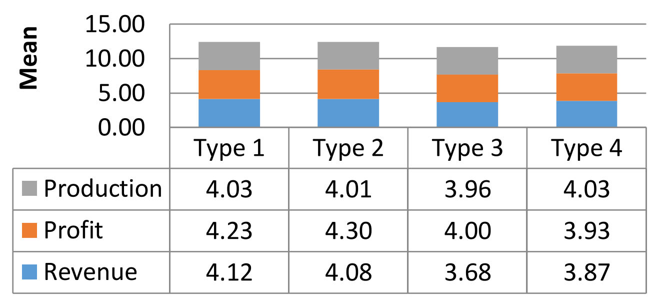


Chart 4: Revenue budget

*Regarding the budgeting contents*, the survey results in Table 3 show that the consumption budget is most concerned by companies (91.3%). The consumption budget is an important indicator that has an impact on other budgets. Therefore, accurate prediction of consumption helps to budget information more effective. The next one, the profit budget (82.6%) as profits, is always the top concern of any business. In order to prepare an accurate profit budget, the revenue budget and other budgets must also be practical. In addition, 73.9% of enterprises based on the consumption volume budget to estimate production volume. This proves that companies placed a great emphasis on creating products to provide to the market. However, companies in the survey did not emphasize the budgets for sales and administration and the budget for production expenses. Thus, it can be seen that in the budgeting process, enterprises pay special attention to revenue and profits, which is contrary to the standard expenses. Charts 3 and 4 show the level of established budgets for each type of enterprise by each type of budget. It can be seen that the revenue budget is used more and more frequently than the expense budget, as mean values range from 3.68 to 4.23. In addition, there is almost no difference between types of enterprises in terms of the revenue budget. Regarding the expense budgets, the level of regular use has mean values ranging from 3.13 to 4.04. In particular, privately-owned enterprises do not use any expense budgets.

Regarding the budget period, the pharmaceutical companies made annual budgets. The budgets were prepared by companies at the end of the fourth quarter of the current year. Annually, based on the date of the relevant departments and actual situation, the departments in charge would prepare budgets for the subsequent production and business year. However, during that year, based on actual situations of production and business of the previous year and business plan of the company, the responsible department may revise and adjust the budgets to suit the situation.

Regarding budget techniques, the budgets must establish quantitative targets that need to be achieved in the year. The objectives must be clear so that all departments in the organization can implement them together. The budgets are monitored regularly to make adjustments in accordance with the actual situation taking place in the year because the budgets contain uncertainty. Moreover, the production and business environment is volatile constantly. It is critical to regularly check and evaluate the budget implementation to compare with the reality and adjust accordingly, as well as ensure the flexibility of the budget reports. In addition, one of the principles of preparing budgets is that budgeting must base on practice and reality, but it must reasonably save time and expenses.

Regarding the departments in charge of preparing budgets, generally, most departments such as Accounting Department, Sales Department, Technical Department, Production Planning Department, and Directors are were involved in making budgets, ranging from 69.6% to 100%. After the budgets were prepared by each department, the Accounting department was responsible for summarizing the budget reports of departments and submitting them to the management for approval

Regarding the budgeting process, surveyed enterprises, including joint-stock companies and large companies, used a top-down approach to make budgets. At the end of the year, the Board of Directors, managers and department heads discussed the financial plans for the subsequent year. Generally, the Board of Directors would establish basic targets such as revenues, production volumes, and profits. Based on these criteria, company managers considered building-specific objectives strategies and assigned relevant departments to make budgets. The Department of Economics-Planning/Sales Department would then rely on given objectives assigned by the upper level of management combined with other sources of information such as the actual production volume of the previous year, demanded consumption or production capacity of the company to estimate the level of consumption for the specified year. The Economic Planning Department/ Production Planning Department would conduct calculations considering the amount of inventory and demanded consumption to plan the number of products needed to be produced. Based on the production plan and information of the relevant functional departments, the Accounting Department would make plans on the remaining areas regarding expenses, expenses. After the budget reports are were completed, the Economic Planning Department Accounting Department is responsible for summarizing all budget reports and submitting them to the higher level of management to revise and make adjustments accordingly. The adjusted budget reports then would be used as the financial plan for the following years. For example, in NamHa Pharmaceutical Joint Stock Company, budgets for revenue, prices, profits are prepared by the sales department.

## V. DISCUSSION

Pharmaceutical companies in Hanoi had not really considered budgeting as an important tool to control expenses and evaluate operational efficiency. From the management perspective, budgeting plays an important role in the process of decision making regarding investment and business production. However, in the surveyed enterprises, the budgeting process did not focus on analyzing conditions nor considering the relationship between expense budget and other types of budgets to formulate an overall budgeting system. Most new companies focused on setting standard expenses and making expectations about selling prices and profits without paying attention to money collection payment plans tax. Furthermore, the standard expenses and standard prices were not established based on the classification of fixed expenses and variable expenses. Besides, the established selling prices were not based on the relationship between expenses, volume and profit. As a result, budgeting practices in these companies had not brought many benefits in corporate management.

The current method used by companies to make budgets was a top-down approach. Generally, based on the past data and specific characteristics of the company, the Board of Directors would establish basic targets such as revenues, production volumes, and profits. Based on these criteria, responsible departments considered the actual situation to make relevant budgets. One shortcoming of this method is the low budgetary participation of subordinates which may result in disagreement among departments and ineffective budget implementation. In addition, targets determined by managers may not reflect the actual capacity of the company, which may affect the motivation and efficiency of departments in the company.

## VI. SOLUTIONS

### *A. Solutions to prepare budgets effectively*

To increase efficiency, a budget needs to depend less on the fixed fiscal year. There should be a closer connection between the planning process and financial forecasting. Increasing inter-connection and cooperation among departments helps allocate resources more effectively, as senior managers can then see if their decisions conflict with others' plans. Budgeting should also be based on investment rather than expenses. Departments submit their budget plans which list all expenses of products and services to the board of directors. Then, decision-makers have an overview of all proposals and consider approving or rejecting these plans based on ROI.

### *B. Proposing types of budgets*

In order to help management at all levels in operating effectively, pharmaceutical enterprises should synchronize production and business budgets. Particularly, the accounting department needs to coordinate with other related departments such as the production department, sales department, purchasing department to make budget reports. In order to build their business plan, enterprises need to use a lot of information, of which the most important is information of expense, price, and revenue factors. In order to serve the planning function, pharmaceutical companies need to pay attention to the budget reports, which provide expense information, reflecting the overall goals as well as the objectives in each stage of the enterprises. The system of budget reports will serve as a basis for evaluating the results of implementation in each period, for each department or for the enterprise as a whole. Therefore, the system of budget reports is proposed as follows:

*The consumption budget:* The consumption budget should be prepared by stores, branches and consumption centres as a basis for assessing and controlling the output and revenue of sales in each unit. Based on these reports at all levels, budgets are prepared for the entire company. The consumption budgets are made in detail for each consumption centre or business item of the enterprise.

*The production budget*: Based on the characteristics and scale of production and business activities, the number of categories of raw materials and products of traditional medicine, western medicine and cosmetics that enterprises plan to produce and sell in the specified year, the budget reports should be made for each division, responsibility centre and the whole enterprise, including budget reports by element; budget reports by expense item.

*The budget for selling and administrative expenses*: The budget for selling and administrative expenses of enterprises should also be conducted according to the characteristics of expenses. The budget for selling expenses should be made in detail for each consumption centre/factory. The budget for administrative expenses should be prepared in detail for each department of factories and companies.

The budget for production and business activities: It is possible to make a general budget for the whole enterprise or detailed budgets for each group of products. Furthermore, preparing monthly budgets can help the evaluation of production plans and profits of enterprises. The system of budget reports is provided to intermediate managers and senior managers in enterprises. In particular, the budget for the production is provided to the head of the production. The general budget system in the enterprise is submitted to the General Director of the enterprise.

*The monetary budget:* The monetary budget involves the calculation of cash inflows and cash outflows related to the business activities in the periods. This type of budget can be made annually quarterly, and sometimes it is necessary to make monthly, weekly and daily. Monetary budgets are made based on the income and expenses in the operating budget, capital budget and financial budget. It is critical to estimate the period of time between the revenue recorded and the actual time of payment received. Furthermore, it is also necessary to predict the time period between the expense recorded and the actual time of payment of expenses. Non-cash expenses such as depreciation expense of fixed assets or provision for bad debts must be excluded when preparing the monetary budget.

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