



The Effect of the Covid-19 Pandemic on the Budgeting Process in Companies: Implementation in a Manufacturing Company That Activate in ICI^a 500

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Keywords

Budget, Budgeting Process, Budgeting in Companies, Covid-19 Pandemic

Jel Classification

M41, M49.

Paper Type

Research Article

Received

08.03.2022

Revised

19.03.2022

Accepted

28.03.2022

Abstract

Purpose: This work was conducted in one of the 500 largest companies in Turkey to study the impact of the Covid-19 pandemic on the budgeting process in companies.

Methodology: The interview technique was preferred as the research method. Data were collected through one-on-one interviews with the budget manager.

Findings: As a result of the study, it was found that the company acted in accordance with general budgeting principles, invested in technologies to professionalize the budgeting process, and benefited from modern budgeting methods. The Covid-19 pandemic process required constant revisions and flexibility in the budgeting process.

Originality/Value: The study contributes to the literature by examining the impact of Covid-19 on the budgeting process.

Introduction

It is possible for management to make the most profit by taking advantage of opportunities in a competitive environment, but only by anticipating the future and planning corporate activities in advance (Küçüksavaş, 2006). The ability of companies operating in a dynamic and ever-changing environment to secure their existence and make provisions by anticipating the possible risks they may face in the future requires forecasting and planning for the future.

Planning, which is one of the management functions, refers to the systematic work of companies about the future. Budgets prepared for this purpose help in planning the company's activities. There is a close relationship between plans and budgets. While the plan defines the goals and the actions required to achieve those goals, the budget is the numerical expression of those plans in physical or financial terms, or both (Hansen & Mowen, 2006). A budget is a comprehensive plan that contains information about the acquisition and use of resources for a certain period of time (Mulani et al., 2015) and is a quantitative expression of management's future action plan (Codesse et al., 2015). Budget is a formal format that shows how the company resources will be used for the next period for the specified purposes (Kaygusuz & Dokur, 2009). Budgets are a tool that supports the scope of corporate activities, determination of necessary resources and efficient use of these resources (Vazonienė & Stončiuvienė, 2012). Budgets have a purposeful and guiding function (Shim & Siegel, 2005). In short, the budget is the transformation of verbal words, concepts, policies, and activities into numbers and money.

Budgeting is the technical, mechanical methods and procedures of the administrative budget that depend on the planning, regulation and control of the budget (Küçüksavaş, 2006). Budgeting is the process of planning the resource inputs and outputs of the enterprises in the next activity period (Kaygusuz & Dokur, 2009). Budgeting involves setting predetermined goals, reporting actual performance results, and evaluating against the predetermined goals (Fortuna, 2021). Budgeting includes planning, coordination, evaluation of activities, motivation and evaluation of

staff performance. It also supports the company's internal control system (Pietrzak, 2013). Budgets are widely used in management practice worldwide in both the private and public sectors because of their versatility for various purposes such as decision making, planning and resource allocation, coordination and control, communication, learning and interpretation, performance appraisal, and incentive contracts (Lueg & Lu, 2013).

In the literature review, there are studies that point out many shortcomings of traditional budgeting and support the use of modern budgeting methods. On the other hand, traditional budgeting remains one of the oldest planning and control systems in organizations (Codesse et al., 2015; Libby & Lindsay, 2010; Uyar & Bilgin, 2011; King et al., 2010; Uyar, 2009; Pietrzak, 2013; Türk, 2001; Yıldırım & Öker Türdüoğlu, 2019; Neely et al., 2003; Kılınç, 2018). Considering the fact that companies around the world still use traditional budgeting and will continue to do so in the future, efforts by companies to restructure the budgeting process and rethink the use of the budget can lead to traditional budgets meeting the needs of the company (Türk, 2001).

This study consists of 5 parts: Introduction, Literature Review, Methodology, Findings and Conclusion. In the introduction section, the concepts of plan, budget and budgeting are highlighted. In the literature review section, national and international studies on corporate budgets were examined. The methodology section consists of the subsections of research purpose, research questions, and research method. The findings section contains research questions and answers prepared in accordance with the purpose of the study to be posed to the budget manager. In the final part, the data obtained from the findings part were evaluated and recommendations were made to the researchers who will work in the future.

Literature Review

There are many studies that have been conducted in different sectors related to budgeting in companies, which is a topic of cost/performance accounting. As a result

of the literature review, academic studies that have been conducted both nationally and internationally are presented below.

Szychta (2002) conducted a survey to determine the application of management accounting concepts and methods in 60 companies in Poland. As a result of the survey, it was found that 80% of the companies prepared a budget, but only 17% of them prepared a complete overall budget. While 21 companies prepared flexible budgets, 43 companies indicated that they prepared reports to analyze variances.

Ahmad et al. (2003) sent a questionnaire to 162 companies to investigate budgeting practices in Malaysia, and 66 returned questionnaires were analyzed. The questionnaire was in a 5-point Likert scale format and included sub-items on the technical aspects of budgeting, budget participation, and the use of budgets to measure performance. The survey found that budgeting practices in Malaysia are similar to those in the UK and New Zealand. In addition, a participatory approach to budgeting encourages budget preparation, top management views performance as the ability to meet budget targets, and companies in Malaysia use more flexible budgets than companies in the UK and New Zealand.

Abder-Kader & Luther (2006) sent a questionnaire to 658 companies operating in the food and beverage sector in England to investigate management accounting practices. 122 returned questionnaires were analyzed. According to the results of the research, the direct costing method is widely used compared to activity-based costing and the full cost method, and is considered a pillar of management accounting despite the limitations of traditional budgeting.

Jones (2008), applied a survey with 38% return in order to obtain information about budget practices in UK-based hotel companies. The research covers the processes that are used in determining the budgets, the monitoring of the budget processes, and the human aspects of the budgeting process. The research results revealed that the main reason for hotel companies to prepare a budget is to assist in planning, controlling, and evaluating performance. Even though the budget has been seen as

the main performance indicator; the top-down budget approach is dominant; it concluded that flexible budgeting, budget committees, and budget guides use very little.

Uysal (2008), divided the budget applications into three parts: budget planning, execution, control, and analyzed each of which represents a frequency and average analysis method. In the study conducted by applying a questionnaire on 118 employees; It has been concluded that the companies comply with the objectives they set in preparing the budget, the necessary communication, leadership, and coordination are provided during the execution of the budget. In addition to the budget control process, they monitor the deviation from the budget targets in the monthly and quarterly reports they prepare.

Steed & Gu (2009), sent a questionnaire to 121 hotel companies to investigate the budgeting and forecasting practices of hotel companies in the USA and make recommendations to increase efficiency. According to the research findings, many concepts not found in hospitality companies' textbooks have been identified. In addition, some important differences were identified in the budgeting and forecasting processes between large and small companies. However, current budgeting and forecasting methods used in the industry offer opportunities to improve accuracy.

Libby & Lindsay (2010), applied a web-based survey to 558 middle and senior managers in Canada and the USA. 79% of respondents reported that they use budgets for control purposes, that budgets add considerable value to companies, and that budgeting is an essential tool to implement the strategy. In addition, companies stated that they chose to solve these problems instead of leaving the budgets totally due to various crises related to the funding.

King et al. (2010), surveyed to investigate the relationship between adoption and scope of usage budgets and company performance in small companies providing primary health care in Australia. According to the research results, it has been found

that there is a positive relationship between the size, structure (decentralization), and company strategy of a company's use of written budget. Evidence has been found that there is a relationship between budgeting practice and performance.

Berikol (2010), examined the budgeting process of a company operating in Adana. He asked 9 open-ended questions to the budget specialist using the personal interview technique. As a result of the research, it was concluded that the company adopted the bottom-up budget approach, made monthly revisions in the budgets, had a budget preparation committee in the company, and switched to the SAP program, which is more effective than the ORACLE OFA package program. Also, a company employs modern methods such as activity-based budgeting and kaizen costing.

Özbek Püskül (2010), analyzed 210 returned questionnaires from SMEs operating in the manufacturing company in Istanbul in order to determine the level of budget practices and the problems in budget practices in SMEs. According to the research results, it has been determined that the companies do not give the necessary importance to the budget applications, so they mostly prepare an annual budget. Moreover, there is a linear relationship between the size of the company and the elaboration of the budget applications.

Uyar & Bilgin (2011), sent a questionnaire to 300 hotels that were selected by random sampling from 639 hotels (3-4-5 star hotels and apart-hotels) to investigate the budget practices in the Antalya region. According to the research results, it has been seen that most of the Turkish hotels have a budget committee and budget guide and advocate the participatory budget approach. It has been determined that they prepare dynamic budgets because they constantly revise their budgets and report periodically. Profitability and cost control are shown as the main reasons for budget preparation. In addition, hotels stated that they see their budget as one of the primary performance indicators.

Gençtürk & Bağcı (2012), analyzed the views of 14 production companies operating in Burdur on the budget and budget applications by using the interview technique. As

a result of the study, it was concluded that the companies could not adequately express concepts such as budget and budget control. Meanwhile, family companies do not care about the benefits of preparing a budget and do not prepare a budget because they avoid sharing information with their team. On the other hand, It has been observed that the companies were preparing the budget to determine the budget figures according to scientific principles. In addition, it was emphasized that there is a positive relationship between institutionalization and successful budget preparation.

Güngör Tanç & Dikicioğlu (2012), surveyed the employees of a large-scale industrial company operating in Kayseri in order to investigate the effect of the participatory budget approach on budget estimation and budget performance. According to the study results, it was concluded that there is a positive relationship between the participatory budget, the budget forecast, and between the budget performance and the budget forecast, despite there being no relationship between the participatory budget and the budget performance.

Pietrzak (2013), applied the Activity Based Budgeting (ABB) method in a logistics company operating in Poland. Research shows that ABB seems necessary in light of the evolving needs for budget use. ABB can increase managers' awareness and help them make informed decisions. In addition, it has been concluded that companies use budgeting activities to a large extent and do not plan to give up on it, but FTB is not widely used because it is time-consuming and expensive.

Lueg & Lu (2013), conducted a case study in a Danish SME to examine how SMEs can increase the efficiency of data collection and processing in the budgeting process. According to the research results, it has been shown that the problems in budgeting may arise from a budgeting process that lacks the intelligibility, simplicity, and ease of use of standard software for company intelligence.

Lidia (2014), surveyed economic institutions, professors, and graduate students on the advantages and disadvantages of budgets in Romania's company and academic

environment. The research result shows that budgets are profitable for companies and offer numerous merits despite some demerits.

Mulani et al. (2015), surveyed 268 companies from 3 different regions of India in order to reveal the effect of the budgeting process on the performance of SMEs. According to the research results, it was concluded that there is a positive relationship between company performance and the budgeting process, and more prominent targets provide higher performance. Set challenging but achievable goals for increasing the motivation of employees until they reach their budget goals. In addition, it has been concluded that companies that make formal budgeting plans achieve higher growth rates in sales and profits.

Lorain et al. (2015), applied 86 returnable web-based surveys, 45 in 2008 and 41 in 2013, to companies to examine the development of budget practices in tough economic conditions in Spain. Besides; In 2013, they conducted interviews with 5 companies. The research showed that 97% of companies still use the traditional budgeting process in 2013, similar to 2008. According to the results of the interviews, it has been concluded that companies bring more flexibility to their budgeting processes to overcome environmental uncertainties, and they question the dependence on the foreseen information more.

Codesso et al. (2015), identified 19 supermarkets that implemented official budgets out of 451 supermarkets affiliated with the Catarinense Supermarket Association in Santa Catarina, Brazil. A questionnaire was sent to the budget officer via e-mail, and information was requested about budgeting practices. According to the research results, the majority of these supermarkets carry out a budgeting process, and the "Top-Down" approach is predominantly used among them. In addition, it has been concluded that many features and techniques of budgeting are partially implemented.

Yılmaz & Gudil (2016), carried out a study by combining the balanced scorecard and the company budget in a machine manufacturing company in Sakarya. First, the

criteria and targets are determined in all dimensions of the balanced scorecard and associated with three of the activities carried out in the company. Thus, the resulting budget deviations in the budget are associated with the difference between the targets and the current situation in the balanced scorecard. In conclusion, the effect of eliminating budget variances on balanced scorecard metrics has been highlighted.

Zor (2017), in a survey study on 200 SMEs operating in the Marmara region, investigated the factors that are expected to affect the budget applications of SMEs and the relationship between SMEs' budget applications and company performance. Based on factors affecting the research results, such as business size, strategic tendencies, age, education level, and tenure of the company manager. However, a positive, albeit limited, relationship was found between budget practices and company performance.

Foster (2017), in his doctoral study on 86, small companies in the USA examined the extent to which factors, such as budget planning, budget control, and company age, affect the financial performance of companies. In the study, a questionnaire was used as the data collection method, and it used standard multiple linear regression for data analysis. Because of the research, the budget planning factor predicts financial performance. However, no significant relationship was found between budget control and operating age factors with financial performance.

Nair & Kaab (2017), conducted a study by applying a survey to 50 people in total to investigate the budgeting and budget control system in 5 selected Indian companies. Most of the respondents share the same opinion that there is a strong relationship between the budget control system and organizational efficiency. The budget control system is used to serve for different purposes in every company, such as reducing costs, maximizing profitability, and minimizing variances. Research has shown that the most significant obstacle in the budget implementation of its control system is top management.

Şeker (2019), applied a survey to 60 production companies to find out the status of budget applications in Çorum and made evaluations of 44 companies that implemented the budget. According to the study results, it has been determined that the companies believe that the budget studies are helpful and overlook the budget studies, mainly preparing income and expenditure budgets are deficiencies in the level of knowledge and about the types of budgets.

Fortuna (2021), conducted a survey on SMEs in Isabela, Philippines to analyze the budgeting practices used as perceived by the respondents and their effect on the profitability level of the companies. As a research result, it has been concluded that medium-sized companies have more involvement of managers in budgeting practices and adopt information technology than small-scale companies. Retail and service company managers are more involved in the budgeting process and prove a link between budget development and strategic goals, compared to manufacturing business managers. In addition, profitability levels increase as SMEs adopt good budgeting practices.

Methodology

This section comprises information about the purpose of the investigation, the analysis questions, and the research method.

Purpose of the Research

This study aims to investigate the effect of the Covid-19 pandemic on the budgeting process in companies. For this purpose, the budgeting process for one of Turkey's Top 500 industrial companies was examined, and the impact of the Covid-19 pandemic on the budgeting process in 2020 has been revealed.

Research Questions

In the study, the following questions were asked to the budget manager, using the interview technique as the research method:

1. Can you describe the budgeting process in your company in general terms?
2. Can you adapt the budget to changing conditions? Do you apply a flexible budget?

3. Is the budgeting process in your company supported by the employees?
4. Do you have a dedicated department responsible for budget preparation? If so, how many people does it consist of and in what position do they work?
5. What method(s) do you use in your company for demand forecasting?
6. What is the main purpose of preparing a budget for your company? When creating the budget, is there a link between the company strategy, goals, mission, vision and budgets?
7. When creating the budget, do you perform a market analysis?
8. How is the sales budget prepared in your company?
9. Does your company have production planning and how is the production budget prepared?
10. How is the direct first material budget prepared in your company?
11. What method(s) do you use in your company to control inventory? Do you use material requirements planning, production resource planning, or enterprise resource planning methods?
12. How is the budget for direct labor costs prepared in your company?
13. How is the budget for general production costs prepared in your company?
14. How is the budget for research and development (r&d) costs prepared in your company?
15. How is the budget for marketing-sales-distribution (msd) prepared in your company?
16. How is the budget for general administrative expenses prepared in your company?
17. Does your company do tax planning? VAT, stamp duty, etc. Is the budget prepared in advance?
18. Are there numerical variances in your budget? How do you analyze these variances?

19. Which of the following modern budgeting methods do you use in your company? If your answer is none, do you plan to use these methods in the future? What is your approach to this question?

a). Activity-based budgeting b). Continuous budgeting c). "Beyond Budgeting" Beyond budgeting d). Performance-based budgeting e). Zero-based budgeting f). Kaizen budgeting g). Other (please specify)...

20. How did you change the 2020 budget in light of the Covid-19 virus that first appeared in China on December 1, 2019?

21. How do you evaluate 2020 in terms of budgeting in general?

22. How have you considered the impact of the Covid-19 pandemic when preparing the 2021 budget?

23. While 2020 was challenging for some private sectors and businesses, it presented significant opportunities for others. What a year 2020 was for your business, especially when you consider the exchange rate, interest rates, and the Covid-19 axis.

The Research Method

In this study, the interview technique was chosen as the research method. For data collection, 2 sessions were held on different days, each lasting approximately 45 minutes (video interview). For this purpose, an appointment was made with the budget manager and the one-on-one interview technique was used. During the interview, notes were taken as well as the speech was recorded to be used in the preparation of the study. 23 questions in semi-formal question format were addressed to the budget officer. The questions were prepared considering the steps in the general budgeting process and the impact of the Covid-19 pandemic.

Findings

In this section, the impact of the Covid-19 pandemic on the budgeting process in an industrial company in the Marmara region included in the ICI 500 has been studied. In this context, the questions asked to the budget manager using the interview technique and the answers obtained are presented below.

Question 1. Can you describe the budgeting process in your company in general terms?

Answer 1: *"Our company has a guide for preparing budgets. This guide consists of a guideline and rules about how budgets should be prepared, which people and departments are responsible, and how budget-related transactions should be carried out. In our company, the budget process runs through the SAP /BPC module. The Budget Control and Reporting Department, which reports to the Financial Affairs Directorate, manages the budgeting process. The process starts at the beginning of September and ends at the end of December. In early September, the company publishes the budget calendar. According to the calendar, the company is provided with metrics such as exchange rate forecasts, borrowing rates, and inflation rates for the next year. As a budget team, we verify that the data is flowing correctly into the BPC system before September. We will make sure that the fields for budget entries are empty on the screens for actual data and beyond until August. Our modules in the system: sales, production, purchasing, human resources, costs, expenses (including depreciation), investments, financial statements.*

The process starts in the sales department. The sales department prepares monthly year-end forecasts and enters the next year's budget into the system, based on material and country. There are also details such as due dates and discount rates. This data flows into the production system. Production determines the need for raw materials and labor according to the pieces. Purchasing sets prices for raw materials for these needs and studies labor costs. About 40 people are involved in budgeting, usually along with department heads and managers. They make all their inputs through the system. Meanwhile, sales and other departments make expense postings. When these postings are completed, the cost of goods sold and the cost of goods manufactured are formed in the system according to the material recipes. On the other hand, due date postings are made and receivables are performed. Budgetary movements are added to the August balances, and so balance sheets are created. The main financial statements such as balance sheet, income statement and cash flow are presented. The Budgetary Control

and Reporting Department performs these processes and submits them to the Financial Affairs Directorate after they are completed. After performing the required audits, the Director of Financial Affairs submits them to the General Director. Finally, after approval by the General Director, it is submitted to the Board of Directors for final approval."

Question 2 Do you adjust the budget to changing conditions? Do you apply a flexible budget?

Answer 2: *"We definitely prepare a budget every year. After that, we are able to create new budget versions in situations with a big impact, such as economic conditions during the year, the pandemic, exchange rate changes, etc."*

Question 3: Does your company have employee support for the budgeting process?

Answer 3: *"In general, they see the budgeting process as an additional task to their own work. And they work pretty hard. The BPC process has been a part of our lives for two years, and the other departments have gotten more used to the screens and reports this year than they were the first year."*

Question 4. Do you have a separate department responsible for budget preparation? If so, how many people does this consist of and in what position do they work?

Answer 4: *"Yes, the entire responsibility for the budget lies with the Budget Control and Reporting Department. The team consists of 5 people. 3 experts, 1 manager and 1 executive."*

Question 5. What method(s) do you use for demand forecasting in your company?

Answer 5: *"Demand forecasts are based on past years' data. Important variables such as new market assessments, raw material prices and currency changes are taken*

into account. Issues such as the situation of major customers and collateralized labor DBS are also included and reached by consensus with the influence of all departments."

Question 6: What is the main purpose of creating a budget in your company? Is there a link between the company strategy, goals, mission, vision and budgets when creating the budget?

Answer 6: "The main purpose of our budget preparation is to bring the planned and long-term operation into a systematic structure to achieve the company's mission, vision, policy, purpose and strategic goals. In addition, we want to establish a certain uniformity of thought and action in the company and establish authorities and responsibilities. A budget is definitely created in line with the company's goals. For example, if new markets are to be developed in the next year, product recipes are studied accordingly. Advertising budgets are set accordingly."

Question 7. When preparing the budget, do you also carry out market analysis?

Answer 7: "All departments work on this issue. Sales knows its competitors well. Production does staffing plans and inventory studies. Purchasing does a lot of bid and purchase price studies on suppliers in the market. Finance deals with credit rates and currency fluctuations."

Question 8. How is the sales budget prepared in your company?

Answer 8: "First of all, valuations differ from country to country. In addition, all studies also differ by sales channel. In the first phase, the sales of the previous years were studied. Then they look at the general goals they have been given for the next year. Criteria like how they can write due dates and collection rates are the standout parts of their work."

Question 9: Does your company have a production planning system and how is the production budget prepared?

Answer 9: *"For the production budget, the units are expected to come in from sales. When the quantities come in, the product/semi-product codes and the quantities to be sold are evaluated by the sales department, with the starting point being inventory. This evaluation determines how much should be produced. It also determines how many goods should be kept in stock for next year. It is also determined how many workers are needed. Work schedules are also determined. A serious study is done, such as what day to work and how many days the factory will be idle."*

Question 10. How is the Direct First Material material budget prepared in your company?

Answer 10: *"The consumables used in production are calculated based on recipes. Since the first item material budget is also the input to the procurement budget, it represents the material cost of production."*

Question 11. What method(s) do you use in your company to control inventory? Do you use the material requirements planning, production resource planning or enterprise resource planning methods?

Answer 11: *"The material requirements planning method is used."*

Question 12. How is the budget for direct labor costs prepared in your company?

Answer 12: *"First, there are the labor hours per unit. These determined hours are multiplied by production quantities. And this figure is multiplied by the unit wages. Of course, annual increases are also taken into account."*

Question 13. How is the budget for general production costs prepared in your company?

Answer 13: *"Production overhead items mainly include wages, outside labor costs and other operating costs, and depreciation of machinery. All expenditure items from previous years are primarily used as a basis. If new investments are to be made,*

their depreciation is calculated. KWh calculations are made for expenditures on electricity, natural gas, etc. All of this makes up the GUG budget."

Question 14: How is the budget for research and development (R&D) expenditures prepared in your company?

Answer 14: "The R&D department works on this issue. They enter the expenditure items for their new projects into the BPC system based on data from previous years. If they do a study on utility models or new patents, those are also taken into account."

Question 15. How is the budget for marketing and sales expenses (mse) prepared in your company?

Answer 15: "The sales and advertising department works on this issue. They enter the expense items for their new projects into the BPC system based on data from previous years. Also, this line item includes the wages of the employees in these departments. In general, the most important items are wages, advertising, and logistics. Advertising plans are important items for companies. The details are also recorded as login into the system based on the business unit. Travel plans of vendors are also included in this category."

Question 16: How is the budget for general administrative expenses prepared in your company?

Answer 16: "This section includes expenses that are generally incurred for all departments within the company. This includes rental costs for the administrative office and salary costs for general staff. Calculations are made based on previous years. Items such as inflation rates, wage increases, bonuses, etc. are included here."

Question 17. Does your company do fiscal planning? VAT, stamp tax, etc. Is it budgeted in advance?

Answer 17: "Tax planning is done from time to time in the company. In the budget studies, 20% corporate tax is used as the basis for profit and loss statements."

Question 18. Are there numerical variances in your budget? How do you analyze these variances?

Answer 18: *"We generally evaluate budgets by comparing prior years to the months in which actuals are generated to the budget months. We also look at the details of the changes on an invoice basis. We can check contracts with actual data. Correctly calculated postings. We can perform invoice controls. If they can not realize budgeted revenues, we can get an explanation from the appropriate departments."*

Question 19. Which of the following modern budgeting methods do you use in your organization? If your answer is none, do you plan to use these methods in the future? What is your approach to this question?

a). Activity-based budgeting b). Continuous budgeting c). "Beyond budgeting" Beyond budgeting d). Performance-based budgeting e). Zero-based budgeting f). Kaizen budgeting g). Other (please specify)...

Answer 19: *"We use activity-based budgeting. We also use the KPI (key performance indicator)."*

Question 20: How have you changed or made changes to the 2020 budget in light of the Covid-19 virus that first appeared in China on December 1, 2019?

Answer 20: *"In our company, the budgeting period starts in September of each year and becomes final when the approval period is completed by the relevant departments and the Board of Directors in the November-December period. In the subsequent periods, unless an extraordinary situation occurs, compliance with the budget is essential and compliance with the budget is reported to the Board of Directors each month."*

The 2020 budget, approved and finalized in December 2019, had to be revised due to the outbreak of the pandemic in March 2020. In fact, our company continued production until the end of March and decided to stop production in April and benefit from the short-time allowance offered by the government during this period. By stopping production for one month, the April budget was not prepared and an 11-

month budget for 2020 was prepared. Since June, we have tracked all sales units/prices, raw material purchase prices, and operating costs with monthly revisions. In subsequent periods, production continued at 30% capacity in some sections and 50% in others. Thus, if we had left the production, sales, and purchasing budgets as they were originally approved, we could not have said we were on budget. In this case, the production budget, sales budget and purchasing budget were revised according to the conditions of our country and the sector in which our company is located, along with the unforeseen measures.

The expenses for some items were increased: OHS expenses for protective equipment, gloves, health costs, masks. There have also been reductions in some expense items: we have about 200 employees at our corporate headquarters and since we work from home as much as possible, expenses for personnel services, food and office expenses have decreased. Since the same situation applies to employees who work in the factory, these items in the factory have also increased/decreased. This situation has been taken into account when preparing the 2021 budget."

Question 21: How do you evaluate 2020 in terms of budgeting in general?

Answer 21: "The frequent and unpredictable changes in budget items due to the epidemic have made our work more difficult. As mentioned in the last article, we have been tracking conditions on a monthly basis. Budget items for production, purchasing, and sales are prepared with normal conditions in mind. In 2020, both the world, our country, and our company faced an extraordinary situation that greatly affected us and our relationships with stakeholders. The sales item influenced by the demand in the market, the flexible production according to this demand and the unpredictability of the purchase item together with the constantly changing raw material prices made it very difficult for the company to achieve its financial goals and to look into the future. A company that cannot look into the future will try to save the day in the short term instead of making an investment decision and setting long term goals, which greatly affects the company's sustainable profit margin. Financially, the credit items faced

different expenses and were impacted by economic conditions that were not assumed in the budget."

Question 22. How did you consider the impact of the Covid-19 pandemic when preparing the 2021 budget?

Answer 22: *"To answer in the context of question 1, the pandemic has brought two concepts into our lives: the first is caution, the second is uncertainty.*

The presence of the pandemic has led us to think more cautiously, more questioningly, and more broadly when preparing the 2021 budget items. For example: the volatility of exchange rates has led to a continuous increase in raw materials. The raw materials zamak, brass and sheet metal, which are used extensively by our company, have increased by about 50% since the beginning of 2020. This has led to an increase in industrial costs for finished and semi-finished products. These increases have made it difficult both to establish a permanent price in the market and to determine a long-term price, and have inevitably affected sales figures.

Our company did not reduce staff as much as it could have during the pandemic, and staffing needs were met through regular purchases. The provision of seasonal staff can be considered as a result of precaution and uncertainty. This proportion is 15% of the total number of employees of the company. A decrease in personnel costs (service, food, office costs) is foreseen for employees due to working from home."

Question 23: While 2020 was challenging for some private sectors and businesses, it presented significant opportunities for others. What kind of year was 2020 for your company, especially when you consider the exchange rate, interest rates, and the Covid-19 axis.

Answer 23: *"Exports represent 45% of our company's sales, and the domestic market 55%. There is no negative picture in export sales. Considering the advantage of increased exchange rates for foreign customers, the gross product profitability of our company has increased. On the other hand, there were some negative aspects of the domestic sales channel. Due to the pandemic that occurred in our country in March*

2020, both our suppliers and our company experienced a decrease in production. This in turn had a negative impact on prices.

The products we manufacture are of interest to the construction industry. The downsizing of the construction industry in 2020, the discontinuation of projects, etc., led to a decrease in sales, which was mainly due to the previously agreed and ongoing projects. In the period from May 2020, sales of residential mortgage loans increased, mainly thanks to the leadership of state-owned banks and the discounts of private banks in both residential and general purpose loans. This has led to a revival of the construction industry and an increase in sales of our Company's products.

Since our company has no foreign currency loans, it has not been affected by the ever-increasing exchange rates. While most companies write financial expenses on their spreadsheets during this period, we did not have this problem.

In addition to the products that are manufactured by our company, there are also commercial products that are imported from abroad. Their prices have increased due to the exchange rate increases and this increase has had a direct negative impact on the consumer.

As a result of the disruptions in production and the supply chain, CPI and PPI have continuously and significantly increased, especially since August 2020. This situation has negatively affected both production companies like us and consumers."

Evaluation of Results and Findings

This study examined in detail the budgeting process of an industrial company operating in ICI 500 and the impact of the Covid-19 pandemic on the company's budgeting process. As part of the study, the budget manager was asked 23 questions in the form of individual interviews, and the results obtained from the responses are presented in articles below.

- The budgeting process begins in early September and ends in late December.
- There is a guide to help you prepare the budget.

- All general budgeting steps are taken into account when preparing the budget in the company.
- Due to the importance that the company attaches to the budgeting process, it emphasizes new infrastructures and technologies and uses the BPC module in this regard.
- The budgeting process is prepared with a bottom-up approach and for the approval of the budget, a process in the form of the Finance Director, the General Director and the Board of Directors is followed.
- There is a budget control and reporting department consisting of 5 people, 3 experts, 1 manager and 1 general manager.
- Budgeting in the company takes into account the strategy, purpose, mission and vision of the company.
- The company uses the material requirements planning method for inventory control.
- For budget variance analysis, the actual figures that occurred in the previous months are compared with the current month's data and in case of variance, information is obtained from the appropriate people/departments. The company uses the modern budgeting methods "Activity Based Budgeting" and "KPI - Key Performance Indicator".
- The budget for 2020 was prepared for 12 months, but it was realized in 11 months, with the company taking a 1-month break in production in April. Revisions were made for other months' budgets. The increase in prices of some raw materials in the company made it necessary to be more cautious in preparing the budget figures. Similarly, the remote work of most employees in the administrative departments during the pandemic reduced expenses for some items (services, travel, food, office, etc.), which had a positive impact on the budget. The company exports 45% of its products and sells 55% domestically. Exchange rates, interest rates, pandemic, etc. It

does not have too many problems with the products it exports. However, domestic sales have been affected.

Looking at the literature on budgeting in companies (Ahmad et al., 2003; Jones, 2008; Steed & Gu, 2009; Libby & Lindsay, 2010; King et al., 2010; Özbek Püskül, 2010; Uyar & Bilgin, 2011; Mulani et al. al, 2015; Lorain et al., 2015; Codesso et al., 2015; Zor, 2017; Foster, 2017; Şeker, 2019), we find that budgeting processes of companies are mostly studied through surveys. In the researches, except Berikol (2010) and Gençtürk & Bağcı (2012), no study was found that used the interview technique. In addition, there is no study that examines the impact of Covid-19 on the budgeting process. It is thought that the work done in a large company operating at an international level and professionally preparing a budget would be more productive. The time, cost, and difficulties of meeting so many companies face-to-face made it necessary to conduct the study on only one company.

As a result, the Covid-19 pandemic has affected the budgeting process of one of Turkey's Top 500 industrial companies. It has enabled the company to constantly review its budget figures and be much more flexible. The study has the limitation that its results cannot be generalized because it was conducted in only one company. The study of the impact of Covid-19 on the budgeting process is considered a contribution to the literature. Those who plan to work in the future can be recommended to investigate the effect of Covid-19 on the budgeting process in companies using the survey method in different sectors.

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