

Tasty Cookies, Inc.: A Master Budget Case

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Abstract

You are the owner of your own cookie company. Fast growth and the need to expand have made it necessary for you to seek financing from a local bank. However, you need to show the banker your plans for the coming year. Using your own, unique data, you will prepare a comprehensive budget and proforma financial statements to show the banker your projected earnings and financial position. Good luck getting that bank loan!

INTRODUCTION

You knew they were good, but you never thought Grandma's old cookie recipe would bring you this far! It all started about three years ago when you began using your Grandma's cookie recipe to bake, what most people consider, the "best tasting cookies they have ever put in their mouth." After finishing college, you started baking cookies as a little side business. You bake them right in your home and sell them to friends and local stores. Response has been great! People love the cookies, and you are making a little extra money.

Your fast sales growth has negatives in addition to positives. The volume of business has grown so much that you can no longer keep up with demand. Your desire to grow this hobby into a full-fledged business has led you to explore expanding. You have been investigating new facilities and equipment, and checking into the requirements of hiring a few employees. However, there is one problem; you don't have the money to expand!

On the advice of a friend, you meet with a local banker. You share your dreams and ideas, and your need to borrow some money. The banker is encouraging and helpful. However, she states that the bank cannot lend you any money without a business plan that describes your financial results, marketing strategy, and projections for the future. You show the banker your income statement and balance sheet as of the most recent year-end, and the banker is impressed! "Looks very promising," she states. "But what I really need to see is what you plan to do with the money that I will lend you and what your business will look like next year."

When you return home after the meeting, you pull out your old college accounting textbook. You realize that this is a master budget problem just like you did in college. After reviewing your class notes and reading the textbook, you settle in to produce a plan for next year.

ASSIGNMENT PART 1

You immediately realize that you must gain an understanding of your cost structure and of the relationship between your revenues, costs, and profits. You pull out Grandma's recipe to see what ingredients it takes to make a dozen cookies. Next, you go to your invoice files to determine the cost of each of the ingredients. You brainstorm to develop a list of the new costs that you must incur when you expand your operations. After analyzing all of this data you are able to break out your costs into several categories. You realize that some costs are for raw materials while others are related to manufacturing overhead or operating expenses. You also realize that some costs appear to be fixed while other costs are variable. Now you have sufficient information to determine how much money you can make when you sell these cookies.

Requirements for Part 1:

1. Think of your favorite cookie. Search the Internet and find a recipe for this type of cookie. This recipe will be your "Grandma's recipe" that you make and sell in your business. Print out this recipe.

You must consult your recipe to determine the amount of ingredients required for one dozen cookies. You also must consult Exhibit 1 for information regarding the costs of ingredients, manufacturing overhead, and operating expenses. If your cookies have ingredients that are not included in Exhibit 1, these ingredients are considered part of overhead.

2. Calculate the following:
 - (a) Total variable costs per dozen cookies.
 - (b) Sales price per dozen cookies using “markup on variable costs.”
 - (c) Contribution margin per dozen cookies.
 - (d) Breakeven point for the quarter (three months) in dollars and in units.
3. Short answer questions:
 - (a) Exhibit 1 presents your expenses in the categories of raw materials, manufacturing overhead, and operating expenses. What factors make each of the categories different?
 - (b) Exhibit 1 indicates which costs are fixed and which costs are variable. For each expense listed, indicate why it would be categorized as fixed or variable.

Note: Make sure you turn in a copy of your recipe with your calculations and answers to the short answer questions. Responses to the short answer questions must be typed (no hand written responses).

ASSIGNMENT PART 2

You now have the information you need to create a budget that will allow you to show the banker your plans for the coming year. This budget also will help you to understand your sales and the collection on those sales. You will be able to determine how much money you need to purchase the ingredients for your cookies and to pay your overhead and operating expenses. You realize, "It all begins with sales. If I can estimate how many dozens of cookies I can sell, then I can calculate how many ingredients to buy and how much my overhead and operating expenses will be. Well, I had better get that sales number as accurate as possible."

You reach in your desk and pull out a disk that the banker gave you. On that disk is an example format of a budget that the banker has seen many businesses use over the years. You pull up the spreadsheet and begin working.

Requirements for Part 2:

Exhibit 2 presents information regarding your sales projections, expected collection patterns, purchasing and payment patterns for the first four months of the year.

1. Use the spreadsheet template provided by your instructor to prepare the following operating budgets:
 - (a) Sales budget/Cash collections Budget
 - (b) Direct materials purchases budget/Cash disbursements budget
 - (c) Manufacturing overhead budget
 - (d) Operating expenses budget

Note: When preparing the budgets, you should make maximum use of cell referencing and formulas in the Excel spreadsheets. You should not have to enter the same data more than one time (for example, you should enter monthly sales projections on the sales budget and then use cell referencing from the sales budget to incorporate this information in all of the other budgets). You should use formulas in Excel to perform all of your mathematical calculations. Part of your grade for this assignment will be based on your ability to use these Excel tools. Do not complete the income statements, cash budget, and balance sheet worksheets. These budgets comprise Part 3 of the project that will be completed later.

2. Short answer questions:
 - (a) Discuss the importance of beginning the master budget process with an accurate sales budget.
 - (b) What are some important factors that a manager should consider when developing a sales budget? State why each is important.
 - (c) Distinguish between operating expenses and disbursements for operating expenses.

ASSIGNMENT PART 3

You have now completed each of your operating budgets. It looks pretty good! "But what does this tell me?" you ask yourself. "This is good information, but I still do not know what my profits are projected to be or if I will need any additional cash borrowing during the period." Now you must put it all together to see if you will have profits and see if you have enough money to do what you want to do. You know that you have some of your own money to contribute to the business and you also know that you need to make some equipment purchases. Now it is time for you to develop your proforma (projected) income statement, balance sheet, and cash budget.

Requirements for Part 3:

Exhibit 3 contains information regarding your plans for capital contributions, equipment purchases, loans, minimum cash balances, and estimated tax rate.

1. Use the information from Exhibit 3 and information from your operating budgets completed in Part 2 to prepare the following for the first three months of the year.
 - (a) Proforma variable income statement
 - (b) Proforma absorption income statement
 - (c) Cash budget
 - (d) Proforma balance sheet
2. Short answer questions:
 - (a) What is the main difference between the variable and absorption income statements?
 - (b) What are the major benefits of budgeting?
 - (c) What is sensitivity analysis? How does the use of spreadsheets aid in the application of sensitivity analysis?

CASE LEARNING OBJECTIVES AND IMPLEMENTATION GUIDANCE

Overview and Learning Objectives

The primary objective of this case is to give the students an opportunity to develop a master budget from start to finish. We are convinced that the best way to learn budgeting is by actually doing it. We have always found it difficult for students to really grasp how to do a budget by just assigning a few budget questions at the end of the chapter. This project allows the students to see the entire budget process and how it relates to other topics covered in the introductory managerial accounting class. Using Excel, the students develop each part of the master budget, concluding with proforma financial statements. The students each have a unique data set that they have chosen by selecting their own cookie recipe and by using sales numbers that are based on their own personal characteristics (i.e. last four digits of their phone number or last four digits of their social security number).

A second objective is to provide the opportunity to enhance critical thinking, technical and communication skills. The students are evaluated on their use of Excel tools to complete the master budget. In addition, the case allows the students to demonstrate their ability to think critically and communicate clearly in their responses to the short answer questions. The case gives practice in the following conceptual areas:

Part 1:
Fixed and Variable Costs
Product Pricing
Contribution Margin
Breakeven Analysis
Product and Period Costs

Part 2:
Operating Budgets
Accrual compared to Cash Accounting
Factors that impact Sales Projections

Part 3:
Financial Budgets
Variable and Absorption Income Statements
Relationship between Managerial and Financial Accounting
Benefits of Spreadsheet Use in Budgeting

Exhibits 1 through 3 give examples of the information given to the students.

Suggestions for Classroom Use

We use this assignment as a project in our undergraduate introductory managerial accounting course. The students are told that they will be assigned a three-part project that will be due at various points during the semester. Part one is distributed early in the semester while covering cost behavior and breakeven point analysis. At this time the students get their recipe and become familiar with the fixed versus variable and product versus period costs of their cookie company. Part one is turned in and graded and corrected before part two is distributed.

Part two is distributed after reviewing the chapter on budgeting. Often, we will use the worksheets from the project as an in class example of budgeting. Instead of being a cookie company, we will use a sandal producing or CD producing company. We use different factors and numbers than those assigned for the project, but, by using the same worksheets that the students will use for the project, we provide some experience with the project. Part two is turned in, graded and corrected before part three is distributed.

Part three is distributed after reviewing absorption and variable costing. This last part is usually the most difficult for the students because they are integrating both managerial and financial accounting. Students will often feel a sense of accomplishment if they can get everything to balance or a sense of frustration if they cannot get their statements to come together correctly.

Since the project builds upon itself, it is important that the students get each of the prior parts correct before moving on to the next part. Therefore, we usually have two submissions for each part of the project. Students will turn in a part of the project and we will grade it by circling anything incorrect and taking off points. Then the students can redo and resubmit that part to earn back a portion (generally up to one half) of their missed points prior to beginning the next part.

A copy of the student Excel file and other teaching aids are available from the authors upon request.


Student Responses

This case has been tested and refined with four different classes over the course of 1 1/2 years. It was really refreshing as an instructor to see the students enjoy building an Excel model that uses their own unique set of data and wondering whether their “company” will be profitable. Student evaluations of the project were mostly favorable. In student evaluations, statements were made such as “the cookie project was a good way to

understand the chapter on budgeting... I wish we could do more.” Another example was “I really enjoyed the project, and it helped me to really learn how to do a complex budget.” Or “the spreadsheets helped and I think it will continue to help me in the future not only in this class but in others.”

The few negative comments mainly related to part three of the budget that requires the students to do the pro forma financial statements. There was a sense of frustration when they had to integrate both financial and managerial accounting. For example, one student stated, “the project needs a little more direction, it’s too confusing.”

Conclusion

We recommend this case to all instructors who want to bring budgeting to life for their students. Using unique data and a real world simulation allow the students to realize that preparing a budget is a key part of managing an organization. Budgeting becomes more than just “working a problem in the back of the book.” Rather, while using Excel, students get to see how financial and managerial accounting interacts with each other. 

Teaching Notes

Teaching Notes are available through the American Accounting Association’s electronic publications system at <http://aaahp.org/ic/browse.htm>. Full members can use their personalized usernames and passwords for entry into the system where the Teaching Notes can be reviewed and printed.

If you are a full member of AAA and have any trouble accessing this material, please contact the AAA headquarters office at office@aaahp.org or (941) 921-7747.

EXHIBIT 1

Sales Price, Costs of Ingredients, Manufacturing Overhead, and Operating Expenses

Sales Price:

Mark-up on total variable costs: 120%

Cost of Raw Materials:

Direct Materials	unit cost
Flour/Sugar (any kind) - per cup	\$0.15
Eggs -per egg	\$0.10
Butter, Shortening, Oil - per cup*	\$2.00
Chips/Nuts, etc - per cup	\$1.25

* 1 stick butter = ½ cup

Direct Labor Costs:

Information regarding direct labor costs is not maintained because your facility is highly automated. Direct labor is included as part of manufacturing overhead.

Manufacturing Overhead:

	Variable costs (per dozen):	Fixed Costs (per month):
Utilities	\$0.50	
Other indirect materials and labor	\$0.75	
Maintenance		\$500
Depreciation		\$2,000
Supervision		\$2,500
Totals	\$1.25	\$5,000

Operating Expenses:

	Variable costs (per dozen):	Fixed Costs (per month):
Sales Commission	\$0.50	
Shipping Costs	\$1.00	
Salaries		\$5,000
Depreciation		\$200
Other		\$1,800
Totals	\$1.50	\$7,000

EXHIBIT 2		
Sales Projections, Collections, Purchases and Payments		
Monthly sales projections (in dozens of cookies):		Sample Number*
January	The first four digits of your phone number	3709
February	The year you were born	1948
March	The first four digits of your social security number	4088
April	The last four digits of your social security number	5992
*Enter the appropriate number in this column.		
<p>You have stopped production of cookies at year end to facilitate the expansion of the business. Therefore, you expect to have no uncollected accounts receivables, unpaid accounts payable, Or raw material inventories at January 1, the beginning of your budget period.</p>		
Collections on Sales:		
	Percentage	
Cash sales are collected in the month of sale.	40%	
Credit sales are collected in the next month.	60%	
Production:		
The company produces the cookies daily. No work-in-process or finished goods inventories are maintained.		
Raw materials:		
The company plans to maintain an ending inventory of raw materials at the end of each month. The company desires to maintain a percentage of raw materials production needs for the next month.		
Desired ending raw materials inventory percentage:	10%	
Payment for Raw Materials:		
	Percentage	
Paid in the month of purchase	25%	
Paid in the month following purchase	75%	
See Exhibit 1 for information regarding raw material costs, manufacturing overhead, and operating expense.		

EXHIBIT 3	
Other Transactions	
Initial investment:	
Capital contribution in January	\$50,000
Borrowing:	
Bank loan in January	\$50,000
Minimum desired cash balance at the end of month	\$10,000
As cash over \$10,000 is available at the end of the month, you will make repayments of outstanding loans in multiples of \$1000.	
If additional borrowing is necessary to maintain the \$10,000 end-of-month balance, you have a line of credit with the bank, and will borrow additional funds in multiples of \$1,000.	
Interest (12% annual rate) is paid monthly on total outstanding borrowings at the end of the prior month.	
Fixed asset acquisition:	
Budgeted fixed asset acquisitions in January	\$90,000
Income taxes:	
Income tax rate	25%
Income taxes are paid at the end of each quarter on net income for that quarter.	

TEACHING NOTES

To aid in your grading of the Excel spreadsheet project, we are making available to all interested faculty both a Student Template and a Solution Template. The Student Template contains Exhibits 1 through 3 and blank copies (containing no numbers or formulas) of the operating budget worksheets and proforma financial statements (Exhibits 4 through 10 found at the end of this section).

The Solution Template also contains Exhibits 1 through 10, but this template was created with all the formulas and links imbedded in the spreadsheet. The instructor must input the students' sales projections and raw material quantities, and the spreadsheet calculates all the proper budget worksheets¹. The instructor has the ability to change all of the parameters in the project such as the mark-up percentage, % sales collected each month, materials cost, amount of equipment purchased, etc. Thus, a unique set of assumptions can be incorporated into your budget process for each semester. This lessens the likelihood that a student would simply get a copy of the spreadsheet from someone who has taken the class previously and use that for his/her submission.

These templates will need to be updated prior to the beginning of the semester, and then will be used during the course of the semester. We use these templates as follows:

¹ The only numbers that need manual adjustment are the borrowings and repayments on the cash budget. The instructor must enter amounts for borrowing or repaying money based on the established minimum cash balance and the excess or deficiency shown on the worksheet.

- Setup – We first determine the parameters that we want to use for the semester and update both the Student Template and the Solution Template with this information. For example, we decide on the cost of materials (eggs, sugar, butter, etc.), the % of sales that will be collected in cash each month, the required ending inventory or raw materials, the amount of contributed capital, etc.
- Part 1 – In addition to Exhibits 1 through 10, the Solution Template also includes a worksheet that can be used by the instructor to calculate the Part 1 requirements (i.e. calculating variable costs, breakeven point, contribution margin, etc.) When the students submit their recipe, we input the students' raw material quantities into the Solution Template and Excel makes all of the required calculations for sales mark-up, variable costs, breakeven, etc. Also, by entering this information you will have automatically entered in part of the data needed for the solution to Parts 2 and 3 of the project. We then save the Solution Template as a separate file under the students' name for later reference. Please note, that the Student Template does not include a worksheet for calculating Part 1. This is only in the Solution Template. We have chosen not to give them a prescribed form because we are trying to prompt them to think critically about how to apply the concepts such as contribution margin and breakeven analysis to their cookie company. A predetermined format for these calculations might encourage the students to just fill in the blank cells without an understanding of the underlying principles that apply.
- Covering the budget topic – When we cover the budget topic, we make the Student Template available and use the budget worksheets from the Student Template in class discussions. We may present an example using a different product and different parameters than that assigned for the project. We use the budget spreadsheets in our class lectures so that the students will have something to reference when they are working on the project themselves. Or alternatively, the students can be referred to Exhibits 4-10 during an in-class discussion of applicable chapter problems.
- Part 2 – When the students turn in Part 2, the instructor must manually enter the monthly sales projections into the previously save Solutions Template (the one uniquely saved for each student). Then the template can be used to grade the Part 2 submission for each student. Once again, save the unique Solutions Template file for each student.
- Part 3 – When Part 3 is submitted, retrieve the students' saved Solutions Template to grade this part of the project, and you will only need to make the necessary manual adjustments described in Note 1.

Since the project builds from one part to the next, the student must have Part 1 correct before moving to Part 2 and Parts 1 and 2 correct before moving to Part 3. For this reason, we normally allow the student to make two submissions for each part of the project. In the second submission, the students are allowed to earn back ½ of the points missed. This not only gives the students the ability to recover if they made a large mistake early in the project, but also motivates them to do their best the first time.

We normally grade for both correctness and for the use of Excel tools. For Parts 2 and 3 the students turn in two copies of their Excel spreadsheet, one with numbers and one with formulas. The numbers are graded using the solutions template. We grade the copy with formulas by observing the student's use cell referencing and formulas. We subtract points for failure to make maximum use cell referencing and formulas as appropriate in the spreadsheet. For example, the monthly sales projections are used several times in the budget. We expect the students to input these numbers only one time and then use cell references to incorporate these numbers in the other worksheets.

Some instructors may choose to have the students submit their cases by e-mailing their Excel files rather than submitting paper copies. However, we have found it much easier to just mark their paper copies while referring to the student's solution template on our own computer screen.

The grade value attached to the case has varied, but normally the project has counted for about 15% of the total grade with each part worth the following:

- Part 1 - 10 points
- Part 2 - 20 points
- Part 3 - 20 points

What Students Find Most Troublesome

We discuss below some of the aspects of the assignment that seem to be the most troublesome to students. We also provide some suggestions that may help the instructor to deal with these issues.

- We have found that the students who need the most assistance tend to be those with weak Excel skills. To help these students we will often hold one class meeting in the computer lab after assigning Part 2. This provides an opportunity for the students to ask questions about both the project and Excel. This seems to help these students get off to a better start.
- Understanding beginning and ending inventories for the purchases budget is a challenge for some students. Since the ending inventory is a percentage of next month's needs, they cannot calculate the current month's ending inventory until they calculate next month's production needs. This is especially problematic for the month of March because they need to calculate April's production needs and there is no column for the month of April. Therefore, they must incorporate April's needs in their Excel formula. Also note that you must know the April sales estimates for each student in order to complete the solutions spreadsheet. In order to obtain this information, you may want to ask them to write their April sales estimate somewhere on the submitted worksheets. Or, you may choose to use some parameter that you may access in other ways (such as year of birth).
- The total column on the purchases budget often presents problems because the students fail to realize that "beginning" is the beginning of January and "end" is the end of March.
- The cash budget is troublesome to students for several reasons. First, it is a comprehensive budget that gathers data from all the other budget worksheets. Also, students must determine the amount of money that they need to borrow or are able to repay in order to maintain the minimum cash balance. They also must calculate interest on the money borrowed.
- We find that the balance sheet worksheet is the most difficult for students. The balance sheet, like the cash budget, requires the students to pull information from several of the other spreadsheets and to make some additional calculations. For example, they have to calculate the accounts receivable and accounts payable balances based on cash collected from customers and cash paid to suppliers. They must calculate the fixed asset balance by subtracting the amount of depreciation expense from the cost of the assets. They must understand that the retained earnings balance is currently equal to net income. Preparation of the balance sheet is a good review of concepts they would have covered in the introductory financial accounting class. We tell students that if their balance sheet is not in balance, then there is a mistake in the project. An out-of-balance balance sheet is the most common reason that the students will come to you with questions.

Suggested Solutions to Short Answer Questions for Parts 1 through 3:

(Based on coverage of these topics in Horngren, Sundem, and Stratton, *Introduction to Management Accounting*, twelfth edition, Prentice Hall)

Part 1:

- 3-a) Raw materials and manufacturing overhead are both product costs, costs that are identified with the cookies

produced. Raw materials costs are the material costs that can be directly traced to the cookies in an economically feasible way. Manufacturing overhead includes all costs associated with the cookie baking process that cannot be traced to the cookies in an economically feasible way. All product costs become a part of Inventory until the product is sold. Operating expenses are period costs, costs that not related to the cookie baking process, and are deducted as expenses in the current period.

3-b) Fixed Manufacturing Overhead includes Maintenance, Depreciation and Supervision. Maintenance costs would include items such as maintenance worker's salaries, cleaning supplies, and overall maintenance on equipment. Depreciation expense is the write-off of the cost of the equipment purchased. Depreciation expense is calculated using the straight-line method that expenses the cost of the asset over the period of time the equipment is expected to be used. Supervision costs include the salary, benefits and any supplies used by the supervisor. These items would be considered fixed because they will not vary directly with production (the number of dozens of cookies baked), but would be a function of time.

Fixed Operating Expenses include Salaries, Depreciation, and Other. Operating Salaries would include the amounts paid to the receptionist who answers the phone and greets your customers, amounts paid to those responsible for accounting and personnel functions, and amounts paid to all other employees that are not involved in the production (cookie baking) process. Depreciation, as above, is the write-off of the cost of the operating assets over their useful lives, and is calculated using the straight-line method. Other fixed costs could include any operating costs that do not vary with production, but would be a function of time.

Variable costs vary in direct proportion to the level of production. The amount of utilities used to run the ovens would vary with production, as would the other indirect materials and labor.

Sales commissions and shipping costs would be directly related to the number of dozens of cookies sold, which would also be the number of cookies produced.

Part 2:

2-a) The sales budget is the starting point for all other budgets. The budgeted level of sales will impact inventory levels, purchases, manufacturing overhead and operating expenses incurred. If your sales budget is not accurate, then none of the other budgets are correct either.

2-b) Factors that managers may consider when developing a sales budget are:

- Past patterns of sales: Break down by product line, geographical region, and type of customer would be beneficial.
- Estimates made by the sales force: Sales persons should best know the desires and plans of customers.
- General economic conditions: Statistics such as gross domestic product, inflation rates, and unemployment rates could impact your ability to sell. Knowledge of how these and other economic statistics impact your operations can assist in developing estimates of projected sales.
- Competitors' actions: The amount of your sales depends on the strategies and reactions of your competitors, such as changes in their prices, product quality, or services.
- Changes in the firms' prices: A change in prices may impact customer demand. Typically, sales volume is increased when prices are decreased, and vice versa.
- Changes in product mix: Management should identify the most profitable products and try to focus on increasing sales in this area.
- Market research studies: Studies to determine market conditions and customer preferences.
- Advertising and sales promotion plans: These can affect sales levels, so sales forecasts should consider planned activities in these areas.

2-c) Expenses are recognized in the income statement when they are incurred or when they are properly matched against revenues earned. The recognition of expenses in the income statement is independent of when the expenses are actually paid. Disbursements for expenses reflect the actual payment of cash for these expenses.

Part 3:

2-a) The focus of the variable income statement is on cost behavior; variable costs are subtracted from sales to obtain a contribution margin subtotal, and fixed costs are subtracted from contribution margin to calculate net income.

The focus of the absorption income statement is on functional categories of expenses. Cost of goods sold is subtracted from sales to determine gross profit, and operating expenses are subtracted from gross profit to determine net income.

2-b) Three major benefits of budgeting are:

1. Budgeting compels managers to think ahead by formalizing their responsibilities for planning.
2. Budgeting provides definite expectations that are the best framework for judging subsequent performance.
3. Budgeting aids managers in coordinating their efforts, so that the plans of an organization's sub-units meet the objectives of the organization as a whole.

2-c) Sensitivity analysis for budgeting is the systematic varying of budget data input to determine the effects of each change on the budget. With the use of cell referencing each worksheet schedule in a spreadsheet can be linked. Thus it is only necessary to change the budget data input in one cell, and all cells that have been referenced to the modified cell will automatically be changed also.

Exhibit 4				
Your Cookie Company				
Sales Budget/Cash Collections Budget				
For the Quarter Ending March 31st				
Sales	January	February	March	Total
Expected sales in dozens of cookies:	3,709	1,948	4,088	9,745
Selling price per dozen	\$ 9.8175	\$ 9.8175	\$ 9.8175	\$9.8175
Total sales in Dollars	\$ 36,413	\$ 19,124	\$ 40,134	\$95,672
Total Cash Sales (60%)	\$ 21,848	\$ 11,475	\$ 24,080	\$57,403
Total Credit Sales (40%)	\$ 14,565	\$ 7,650	\$ 16,054	\$38,269
Cash Collections				
Cash Sales this month	\$ 21,848	\$ 11,475	\$ 24,080	\$57,403
100% of last month's credit sales	\$ -	\$ 14,565	\$ 7,650	\$22,215
Total cash collections	\$ 21,848	\$ 26,040	\$ 31,730	\$79,618

Exhibit 5				
Your Cookie Company				
Direct Materials Purchases/Cash Disbursements Budget For the Quarter Ending March 31st				
Sugar/flour:	January	February	March	Total
Dozens of cookies to be produced	3,709	1,948	4,088	9,745
Raw materials per dozen cookies (cups)	1.50	1.50	1.50	1.50
Production/Cost of Goods Sold needs	5,564	2,922	6,132	14,618
Add: Desired ending raw materials inventory	292	613	899	899
Total needs	5,856	3,535	7,031	15,516
Less: Beginning raw materials inventory	-	292	613	-
Raw materials to be purchased	5,856	3,243	6,418	15,516
Cost of raw materials per cup	\$ 0.15	\$ 0.15	\$ 0.15	\$ 0.15
Total cost of raw materials	\$ 878	\$ 486	\$ 963	\$ 2,327
Eggs:				
Dozens of cookies to be produced	3,709	1,948	4,088	9,745
Raw materials per dozen cookies (# of eggs)	0.50	0.50	0.50	0.50
Production/Cost of Goods Sold needs	1,855	974	2,044	4,873
Add: Desired ending raw materials inventory	97	204	300	300
Total needs	1,952	1,178	2,344	5,172
Less: Beginning raw materials inventory	-	97	204	-
Raw materials to be purchased	1,952	1,081	2,139	5,172
Cost of raw materials per egg	\$0.10	\$0.10	\$0.10	\$0.10
Total cost of raw materials	\$ 195	\$ 108	\$ 214	\$ 517
Butter, Shortening, Oil:				
Dozens of cookies to be produced	3,709	1,948	4,088	9,745
Raw materials per dozen cookies (cups)	0.25	0.25	0.25	0.25
Production/Cost of Goods Sold needs	927	487	1,022	2,436
Add: Desired ending raw materials inventory	49	102	150	150
Total needs	976	589	1,172	2,586
Less: Beginning raw materials inventory	-	49	102	-
Raw materials to be purchased	976	541	1,070	2,586
Cost of raw materials per cup	\$ 2.00	\$ 2.00	\$ 2.00	\$ 2.00
Total cost of raw materials	\$ 1,952	\$ 1,081	\$ 2,139	\$ 5,172
Chips/Nuts:				
Dozens of cookies to be produced	3,709	1,948	4,088	9,745
Raw materials per dozen cookies (cups)	0.75	0.75	0.75	0.75
Production/Cost of Goods Sold needs	2,782	1,461	3,066	7,309
Add: Desired ending raw materials inventory	146	307	449	449
Total needs	2,928	1,768	3,515	7,758
Less: Beginning raw materials inventory	-	146	307	-
Raw materials to be purchased	2,928	1,622	3,209	7,758
Cost of raw materials per cup	\$ 1.25	\$ 1.25	\$ 1.25	\$ 1.25
Total cost of raw materials	\$ 3,660	\$ 2,027	\$ 4,011	\$ 9,698
Total raw material purchases	\$ 6,685	\$ 3,702	\$ 7,327	\$ 17,714

Direct Materials Purchases/Cash Disbursements Budget (continued)				
	units	unit cost	Total	
Total raw material purchases (Cell 49E)			\$ 17,714	
Costs in Raw Materials Inventory March 31:				
Flour/Sugar	899	\$0.15	\$ 135	
Eggs	300	\$0.10	\$ 30	
Butter, Shortening, Oil	150	\$2.00	\$ 300	
Chips/Nuts	449	\$1.25	\$ 562	
Total Raw Materials Inventory			<u>\$ 1,026</u>	
Cost of Goods Sold			<u>\$ 16,688</u>	
Schedule of Expected Cash Disbursements				
	January	February	March	Total
25% of current month's raw materials purchases	\$ 1,671	\$ 926	\$ 1,832	\$ 4,429
75% of prior month's raw materials purchases	\$ -	\$ 5,014	\$ 2,777	\$ 7,791
Total cash disbursements	<u>\$ 1,671</u>	<u>\$ 5,940</u>	<u>\$ 4,609</u>	<u>\$ 12,219</u>

Exhibit 6				
Your Cookie Company				
Manufacturing Overhead Budget				
For the Quarter Ending March 31st				
	January	February	March	Total
Dozens of cookies to be produced	3,709	1,948	4,088	9,745
Variable manufacturing overhead per dozen	\$1.25	\$1.25	\$1.25	\$1.25
Budgeted variable overhead	\$ 4,636	\$ 2,435	\$ 5,110	\$ 12,181
Budgeted fixed overhead	\$ 5,000	\$ 5,000	\$ 5,000	\$ 15,000
Total budgeted manufacturing overhead	\$ 9,636	\$ 7,435	\$ 10,110	\$ 27,181
Less: Noncash expenses-Depreciation	\$ 2,000	\$ 2,000	\$ 2,000	\$ 6,000
Cash disbursements for manufacturing overhead	<u>\$ 7,636</u>	<u>\$ 5,435</u>	<u>\$ 8,110</u>	<u>\$ 21,181</u>

Exhibit 7				
Your Cookie Company				
Operating Expense Budget				
For the Quarter Ending March 31st				
	January	February	March	Total
Dozens of cookies to be produced	3,709	1,948	4,088	9,745
Variable operating expenses per dozen	\$1.50	\$1.50	\$1.50	\$1.50
Budgeted variable expense	\$ 5,564	\$ 2,922	\$ 6,132	\$ 14,618
Budgeted fixed expenses	\$ 7,000	\$ 7,000	\$ 7,000	\$ 21,000
Total budgeted operating expenses	\$ 12,564	\$ 9,922	\$ 13,132	\$ 35,618
Less: Noncash expenses-Depreciation	\$ 200	\$ 200	\$ 200	\$ 600
Cash expenditures for operating expenses	<u>\$ 12,364</u>	<u>\$ 9,722</u>	<u>\$ 12,932</u>	<u>\$ 35,018</u>

Exhibit 8	
Your Cookie Company	
Pro Forma Budgeted Income Statement - Variable	
For the Quarter Ending March 31st	
Sales	\$ 95,672
Variable Costs:	
Direct Materials	\$ 16,688
Manufacturing Overhead	\$ 12,181
Operating Expenses	\$ 14,618
Less: total variable costs	\$ 43,487
Contribution margin	\$ 52,184
Fixed costs:	
Manufacturing Overhead	\$ 15,000
Operating Expenses	\$ 21,000
Interest Expense (from Cash Budget)	\$ 960
Less: total fixed costs	\$ 36,960
Operating income	\$ 15,224
Less: Income taxes	\$ 3,806
Net income	\$ 11,418
Your Cookie Company	
Pro Forma Budgeted Income Statement - Absorption	
For the Quarter Ending March 31st	
Sales	\$ 95,672
Cost of Good Sold:	
Direct Materials	\$ 16,688
Manufacturing Overhead	\$ 27,181
Less: Total Cost of Goods Sold	\$ 43,870
Gross Profit	\$ 51,802
Less: Operating Expenses	\$ 35,618
Less: Interest Expense(from Cash Budget)	\$ 960
Operating Income	\$ 15,224
Less: Income taxes	\$ 3,806
Net Income	\$ 11,418

Exhibit 9

Your Cookie Company
Cash Budget
For the Quarter Ending March 31st

	January	February	March	Total
Cash, beginning balance	\$ -	\$ 10,177	\$ 10,620	\$ -
Capital contributions	\$ 50,000			\$ 50,000
Add collections	\$ 21,848	\$ 26,040	\$ 31,730	\$ 79,618
Total cash available	\$ 71,848	\$ 36,217	\$ 42,350	\$ 129,618
Less disbursements:				
Direct materials	\$ 1,671	\$ 5,940	\$ 4,609	\$ 12,219
Manufacturing overhead	\$ 7,636	\$ 5,435	\$ 8,110	\$ 21,181
Operating expenses	\$ 12,364	\$ 9,722	\$ 12,932	\$ 35,018
Income taxes			\$ 3,806	\$ 3,806
Equipment purchases	\$ 90,000			\$ 90,000
Total disbursements	\$ 111,671	\$ 21,097	\$ 29,457	\$ 162,224
Excess (deficiency) of cash	\$ (39,823)	\$ 15,120	\$ 12,894	\$ (32,606)
Financing:				
Borrowings	\$ 50,000	0	0	\$ 50,000
Repayments		\$ 4,000	\$ 2,000	\$ 6,000
Interest		\$ 500	\$ 460	\$ 960
Total financing	\$ 50,000	\$ (4,500)	\$ (2,460)	\$ 43,040
Cash balance, ending	\$ 10,177	\$ 10,620	\$ 10,434	\$ 10,434

Exhibit 10

Your Cookie Company
Budgeted Balance Sheet
March 31st

ASSETS	
Current Assets:	
Cash	\$ 10,434
Accounts Receivable	\$ 16,054
Raw Material Inventory	\$ 1,026
Total Current Assets	\$ 27,513
Fixed Assets (less accumulated depreciation)	\$ 83,400
Total Assets	\$ 110,913
LIABILITIES AND EQUITY	
Liabilities:	
Accounts Payable	\$ 5,495
Notes Payable	\$ 44,000
Total Liabilities	\$ 49,495
Equity:	
Capital Contributions	\$ 50,000
Retained Earnings	\$ 11,418
Total Equities	\$ 61,418
Total Liabilities and Equities	\$ 110,913