



HUMBLE PIES

2014 AICPA Accounting Competition –
Management Accounting

Management Accounting Case Study: An Interactive CGMA Business Game

Case Study – Background
Information and Questions

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Stage One

A history of Humble Pies

Humble Pies, Inc. is the genius of childhood neighbors and best friends Linda Jackson and Taylor Johnson. Though almost inseparable through high school, the two parted ways after graduation—Linda heading abroad to study the art of pastry making in some of the most elite patisseries in Paris, and Taylor pursuing his love of food (especially bacon) by landing jobs in some of the finest restaurants in their hometown of Charlotte, N.C.

A chance encounter back in 2005 reunited the two and got them talking of their mutual love of food and what they'd been learning. Soon they were spending their free time crafting quirky but sophisticated (not to mention delicious) pies—passing them out to friends and family, and building a grassroots fan base around town. When the operation outgrew the Jackson family kitchen, Linda and Taylor applied for a small business loan. With it, they bought a small pie factory in Charlotte and became the proud owners of a 60,000 square-foot facility where they now produce high-quality pies.

A couple years ago, as demand for the pies grew to a national market (thanks to the company's Instagram account), the co-owners hired a new Controller, a CPA with her Chartered Global Management Accountant (CGMA) designation from their CPA firm to help them continue to grow and stay profitable. Now they just landed their largest grocery store yet. In 2013, the company had \$6.1 million in sales revenue and is on track to do \$9.3 million this year.

Humble Pies uses natural and organic ingredients, and combines Linda's Parisian techniques with Taylor's unexpected takes on classical southern desserts like Bacon Chocolate Chess, Avocado Key Lime and Chai Apple Pie. It offers three main product lines:

- *Singles*, as the name suggests, are a single serving, ready to eat on a plate.
- *9-inch pies* are pre-sliced and sold to distributors for food service applications or grocery in-store bakery cases.
- *10-inch pies* are packed in strong, clear plastic domes to be sold in refrigerated cases and with custom labels. The pies are available as a variety pack, a duo-pack (two different flavors) or a full pie.

Linda and Taylor love getting feedback from their fans and are always testing new recipes based on suggestions or grocer suppliers' needs. They often receive requests from food chains for different types and sizes of pies, and must decide which ones to accept and which ones to pass on.

Pie production

Naturally, Linda and Taylor can't reveal their recipes, but they have provided some details on how the pies are made. Most pies go through a general four-step process: mixing, filling, baking and packaging. Humble Pies makes five different crusts mixed in large batches, and fillings are produced in smaller batches depending on the production schedule. Next, crusts are filled with, well, the filling and placed on trays for

baking (15 to 25 at a time depending on size). After they've cooled for an hour, pies are decorated, sliced, packaged and labeled and placed on pallets to freeze until shipped. It takes about a week to complete a pie product order and the plant uses just-in-time production methods. The goal is to produce a pie every five seconds.

Since contaminated food would lead to a visit by the Health Department (and possibly shutting down the factory), there are at least three sanitation workers on duty at all times. Generally, there are 3-4 warehouse workers on duty to handle the shipping, receiving and storage of raw materials and finished product. The plant typically runs two shifts per day with two production supervisors assigned to each shift.

For each of the three product lines, the process is virtually the same regardless of the flavors or ingredients. But the processes between the product lines can be very different (e.g., packaging for variety packs takes much longer than for whole pies because workers need to pull different flavor slices and place them on the same tray). Not to mention the packaging varies—some go in boxes while others go in plastic containers, and some package tops and labels take longer to place than others. Humble Pies seldom places its own labels and logo on any of their products. Label designs generally come from the customer, so they vary based on each order.

The plant currently has capacity to do \$1 million in sales per month, but with additional investments in ovens, mixers and workstations (for about \$500,000) it could increase to \$1.5 million. October through December tends to be a higher volume period (with increased demand for holidays like Thanksgiving and New Year's), resulting in Humble Pies getting roughly 60% of its business during that time period. Because of the rush, the plant runs overtime and weekend shifts as needed to get the product to its suppliers. The owners believe the labeling process significantly slows down production time.

Reports

Humble Pies' managers rely heavily on a "Labor Report" to manage its work force. The report lists eight salaried workers and approximately 50 hourly employees, expected number of work days for the month, hours per day (typically 8) and total projected hours for the month. The hours are multiplied by the employee pay rate (from \$8.50-\$12.50 per hour) to get expected monthly gross pay amount for each hourly employee based on a 40-hour workweek.

The sum of all expected hourly employee gross monthly pay amounts are added to the salaried production workers gross monthly pay and the projected total payroll added costs (Employer taxes, Social Security, etc.) to get "total labor dollars" cost for the month. The total labor dollars are divided by projected sales revenues to get a "projected labor percentage." Management watches this number pretty closely and tries to keep it around 20% of sales. In the past, it was assumed that labor costs for the company did not change with sales volume, and some months were profitable and some were not. Currently, Humble Pies' managers adjust labor hours up or down depending on the demand for pies and try to keep the projected labor near 20% of sales.

Costing Issues

Linda and Taylor are skilled at determining the cost of ingredients, but when it comes to labor and the overhead of each product line, they're not sure where to start. At the moment, Humble Pies allocates the same amount of overhead costs to every output unit. While total labor averages 20%, they believe that labor and overhead costs vary greatly by product. And, since the company does not currently track labor hours by product, Linda and Taylor have no idea of labor cost or profitability by product line. A digital biometric time clock keeps track of hours for the employees, but management is open to asking shift

workers to track their hours by job or batch. Taylor and Linda's primary concern is making sure there is a good reason to change the method and that there's a simple and low-cost way to track it.

The company has a small but growing administrative staff that can do some basic record keeping while the Controller manages financial reporting, taxes and decision analysis, a skill she developed while working toward her CGMA designation. The Controller has asked for help determining a product costing system Humble Pies can use for pricing decisions, product line profitability analysis, financial planning and helping managers understand the business. But costs are only one component. The company currently bases pricing decisions on the "three C's": cost, consumer and competition. As a bare minimum, the company wants to achieve a target 17% gross profit margin (or higher) on cost, but Linda and Taylor consider what a consumer is willing to pay the most important factor in pricing. They want to be sure to keep Humble Pies competitive with other companies. Table 1 provides selected actual cost and revenue data for May 2014. Additional information about costs can be found in the Notes to Selected Financial Data below.

Table 1: Selected Financial Data (actual cost and revenue data for May 2014)

Cost Category	Behavior	May 2014
Sales		\$766,667
Expenses:		
Raw Materials	Variable	\$327,934
Bakery labor	Mixed	\$158,767
Administration Salaries	Fixed	\$41,367
Supplies	Variable	\$3,833
Freight & Shipping-In	Variable	\$4,907
Freight & Shipping-Out	Variable	\$64,707
Utilities – Electricity	Variable	\$9,813
Utilities – Gas (ovens)	Variable	\$3,067
Water	Variable	\$920
Repairs & Maintenance	Fixed	\$4,293
Rent expense	Fixed	\$19,167
Telephone & Internet	Fixed	\$2,300
Co-owners' salary	Fixed	\$25,300
Brokers' commissions	Variable	<u>\$30,667</u>
Total Expenses		<u>\$697,042</u>
Operating Profit		\$69,625
Income Tax		<u>\$22,280</u>
Net operating income		\$47,345
Unit volume		64,500
Average Operating Assets		\$5,500,000
Minimum Rate of Return		8.00%

Notes to Selected Financial Data

Raw Materials: Includes main ingredients and flavor additives. Main ingredients are relatively higher cost items such as flour, sugar, eggs, nuts and fruit that appear on the package label. Flavor additives are relatively low-dollar cost items and a small part of the weight of the pie such as spices, dyes, salt, and certain oils that don't always appear on the package label.

Bakery labor: The cost amount consists of 22% supervisory salaries and taxes and the rest hourly workers. Bakery labor workers are organized into four categories: production line (mixing, filling and baking), packaging, sanitation and warehouse (all included as part of cost of goods sold).

Administration Salaries: Includes taxes and benefits for the Vice President of Operations, the Controller, Human Resources Manager and two administrative support people.

Supplies: Includes supplies relating to production, packaging and decorating, sanitation and warehouse (think: adhesive, pastry bags, spatulas, scrapers, icing pens, gloves and so on).

Freight & Shipping-In: The costs of shipping raw ingredients and other materials to the factory from suppliers.

Freight & Shipping-Out: The costs of shipping finished products to customer locations and distribution centers.

Utilities Electricity: Approximately 10% for administrative office and the remainder for the factory. The factory portion varies somewhat with production volume.

Utilities Gas (ovens): Approximately 5% for administrative office and the remainder for the factory. The factory portion varies somewhat with production volume.

Water: All for the factory and varies proportionately with production volume.

Repairs & Maintenance: All for the factory.

Rent expense: The factory uses about 85% of the total square footage of the building and the remainder is for the administrative office.

Telephone & Internet: All for the administrative office.

Co-owners' salary: Linda Jackson and Taylor Johnson.

Brokers' commissions: Generally 4% of sales.

Income Tax: Average total tax rate is 32%.

Your team's assignment

Linda and Taylor are asking several firms to provide a proposal recommending what type of costing approach will help them determine more accurate cost information for Humble Pies' pricing and product decisions. Your firm has been invited to provide a proposal. In no more than 1,000 words, write an executive summary addressing the following questions (charts and tables with numerical values and calculations will not be included in the word count):

1. What information does Humble Pies need? Before recommending a cost system, it is helpful to understand a company's information needs. Based on case information, discuss the types of cost information Humble Pies' product costing system should be able to provide.
2. Of the expenses listed in Table 1, determine which should be treated as product costs and which should be treated as period costs for management decision making?
3. For each product cost you identified, how would you track the cost? For example, would you track it by individual job, batch, production step, activity, general factory overhead, etc.? Separate raw materials into main ingredients and flavor additives. Also, separate bakery labor into four categories: production line (includes mixing, filling and baking), packaging, sanitation and warehouse.
4. For each specific cost item you listed in question 3, how would you assign that cost to products to attain reasonably accurate product costs? For example, would you compute standard costs, trace it specifically to a customer order, or assign it using an allocation base (and identify the allocation base you would use). Again, separate raw materials into main ingredients and flavor additives.

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Stage Two

Congratulations! Humble Pies owners Linda and Taylor liked what they read in your team's proposal, and they think you are on the right track in helping determine more accurate cost information relating to Humble Pies products. Now they would like your recommendation on which of the following two equipment investment opportunities they should take.

Option 1

Humble Pies just received a request for proposal (RFP) from a national fast food chain to provide upscale individual mini-pies packaged in clear plastic containers with the chain's label. The chain will pay Humble Pies \$1.50 per pie for a 3-year agreement guaranteed for 2,200,000 pies (with the possibility of extension depending on the success of the agreement). The pies would be made using existing recipes and ingredients but would require a large investment in special packaging machinery of \$500,000 with a 10-year life. Humble Pies would expect to achieve a 15% net profit margin on the agreement.

Option 2

Alternatively, as labeling is considered the primary bottleneck, Humble Pies is also considering a new labeling machine (different from the machinery required in Option 1) with an estimated five-year life. Some variety packs require especially heavy labor to assemble the different flavors, snap on the plastic lid, and affix the labels in the right spot. The new machine would cost \$500,000 and save an estimated \$14,500 per month in labor cost. It is also expected to increase throughput by \$13,000 revenues per month with roughly 20% markup on incremental production costs (excluding new investment).

Your team's assignment

Analyze each of these business opportunities from financial, strategic and risk perspectives in a 5- to 6-minute video (using the device provided by the AICPA) and provide 1-3 pages of supporting documentation (contents are up to your team, but must be submitted in PDF, Word or RTF format). Use the following as a guide when making your recommendations:

1. Assess the opportunities in terms of increased profitability and return on investment (ROI). What does this analysis suggest for Humble Pies?
2. Comment on the strategic, technical and risk factors that are relevant to this decision. What does this analysis suggest for Humble Pies?
3. What action do you recommend for Humble Pies at this time?

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Stage Three

The Humble Pies management team was once again impressed with your team's recommendations on the investment opportunities. For various reasons, the company decided to invest in the new labeling machine and not pursue the national fast food chain RFP. However, since receiving your recommendations, the company has been conducting strategic planning discussions on the future of Humble Pies and is considering two major acquisitions.

Option 1

Purchase Pete's Steakhouse. Up to now, Humble Pies has focused on selling pies as a wholesaler to restaurants and grocery store chains in the mid-Atlantic region. Linda and Taylor were approached by the chain's management group about whether they would be interested in buying their five underperforming restaurants and operate them under the "L&T's Steakhouse" name. Pete's Steakhouse is known for its excellent steak dinners and service but has struggled to expand its menu to compete with the many dining options available to consumers in the mid-Atlantic region (primarily, the Carolinas and Virginia). The key idea with this acquisition is that adding Humble Pies' outstanding dessert offerings would make the new restaurant an appealing destination for both dinner and dessert. To help prepare for the upcoming initial negotiations, Linda and Taylor have asked you to review the 2013 performance report for the chain (see Table 2). It is estimated that average price per meal would increase 12% with the new desserts and require an investment of \$10 million.

Option 2

The second option is to purchase and operate a factory in Knoxville, Tennessee which would double Humble Pies' current production volume. There is an existing food production facility in Knoxville in a location that is well positioned on distribution routes and provides proximity to a whole new market of restaurants and grocery chains. The asking price for the factory is \$7.5 million and includes existing equipment. About half the machinery could be used by Humble Pies, but would also require an investment of \$2.5 million in additional equipment with a 10-year average life to provide the same capacity as the current factory. It would take about six months to get the new plant up and running. Estimated sales for the first three years after it opens are \$4 million, \$6 million and \$10 million, respectively. Variable expenses are expected to have about the same behavior and relationship to sales as the current facility. Fixed expenses would be about the same amount per month as the current factory.

Table 2: Pete's Steak House 2012-2013 Performance Report

	<u>2013 Actual</u>	<u>2012 Actual</u>
Customer Volume	1,066,000	1,105,000
Net Sales	\$10,523,440	\$10,508,520
Cost of Sales:		
Food	\$6,340,206	\$6,362,772
Total Labor	\$995,160	\$1,000,480
Cost of Sales	\$7,335,366	\$7,363,252
Gross Profit	\$3,188,074	\$3,145,268
Other Operating Expenses:	\$2,270,665	\$2,222,835
Operating Profit	\$917,409	\$922,433
<u>Other Data:</u>		
Average Operating Assets	\$7,500,000	\$7,500,000
Food Costs: % variable	100%	100%
Total Labor Costs: % variable	70%	70%
Other Op. Expenses: % variable	60%	60%

Your team's assignment

Humble Pies will be hearing recommendations from you and two other teams in just a few weeks in Washington, D.C. Only the best of the best made it this far, so make sure you dress like you mean business (that means a full suit). Humble Pies management wants to get to know each member of your team, so you should each participate equally.

Use the following as a guide when making your recommendations:

1. Assess performance for Pete's Steakhouse in terms of expected return on investment (ROI) and residual income. What were the major factors that contributed to the difference between profits from 2012 to 2013? What does this analysis suggest for Humble Pies?
2. Assess the viability and profitability for the Knoxville factory including its expected ROI and residual income. What does this analysis suggest for Humble Pies?
3. Comment on the strategic, technical, behavioral and risk factors that are relevant to this decision. What does this analysis suggest for Humble Pies?
4. What action do you recommend for Humble Pies at this time?

Each team will give a 10-minute presentation to our esteemed judges, followed by no more than 10 minutes of Q&A. And if you stand out as the best, you'll be taking home first place. Get working! We'll see you on December 19.