Management Accounting Case Study: An Interactive CGMA Business Game

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AICPA Business, Industry & Government Team
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AICPA  Lead Technical Manager

- Serves as Lead Technical Manager in the Business, Industry and Government team at the American Institute of Certified Public Accountants.

- Staff liaison to the Business & Industry Executive Committee which provides insight and guidance on professional issues and trends relevant to AICPA’s members working in business and industry.

- Especially involved in thought leadership and professional development activities for the Chartered Global Management Accountant (CGMA) designation.
Agenda

- Complexity
- CGMA Competencies
- CGMA Syllabus and Exam
- Management Accounting Case – Humble Pies
- AICPA and CGMA Resources
Complexity
Complexity is increasing

- AICPA Business and Industry Economic Outlook Survey Q2 2016
- CPA decision makers (primarily CFOs, CEOs and Controllers)

Given the changing US and global economic and regulatory environment...
...looking ahead 3 years, how do you see the level of general business complexity changing?

Even More Complex = 96%

- No change in complexity: 4%
- Significantly more complex: 22%
- Moderately more complex: 44%
- Slightly more complex: 30%
- No change in complexity: 4%
And...
The role of finance is changing

In addition to traditional financial accounting and reporting...
...what skills do you think will be essential to perform effectively

<table>
<thead>
<tr>
<th>Skill</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic business planning</td>
<td>68%</td>
</tr>
<tr>
<td>Management reporting and analysis</td>
<td>56%</td>
</tr>
<tr>
<td>Risk management and internal...</td>
<td>49%</td>
</tr>
<tr>
<td>Change management</td>
<td>42%</td>
</tr>
<tr>
<td>Communications</td>
<td>39%</td>
</tr>
<tr>
<td>Driving performance</td>
<td>32%</td>
</tr>
<tr>
<td>Project management</td>
<td>23%</td>
</tr>
<tr>
<td>Business relations</td>
<td>19%</td>
</tr>
<tr>
<td>Macroeconomic analysis</td>
<td>8%</td>
</tr>
<tr>
<td>Other</td>
<td>2%</td>
</tr>
</tbody>
</table>
CGMA Competencies
What do employers need?
Competency Development

“Actually, no, his skill set isn’t evident at this point.”
CGMA Competency Framework

Applying accounting and finance skills in the context of business...to influence and lead.
CGMA Competency Framework Outline

Proficiency Levels

Skills
- Technical
- Business
- People
- Leadership

<table>
<thead>
<tr>
<th>Knowledge areas</th>
<th>Competencies</th>
<th>Foundational (Staff/Entry level)</th>
<th>Intermediate (Supervisor/manager)</th>
<th>Advanced (Senior manager)</th>
<th>Expert (Executive/C-Suite)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TECHNICAL SKILLS</strong></td>
<td>Financial accounting and reporting Cost accounting and management Business planning Management reporting and analysis Corporate finance and treasury management Risk management and internal control Accounting information systems Tax strategy, planning and compliance</td>
<td>64%</td>
<td>39%</td>
<td>24%</td>
<td>13%</td>
</tr>
<tr>
<td><strong>BUSINESS SKILLS</strong></td>
<td>Strategy Market environment Process management Business relations Project management Regulatory environment Macroeconomic analysis</td>
<td>16%</td>
<td>24%</td>
<td>25%</td>
<td>25%</td>
</tr>
<tr>
<td><strong>PEOPLE SKILLS</strong></td>
<td>Influence Negotiation Decision making Communication Collaboration and partnering</td>
<td>14%</td>
<td>21%</td>
<td>25%</td>
<td>23%</td>
</tr>
<tr>
<td><strong>LEADERSHIP SKILLS</strong></td>
<td>Team building Coaching and mentoring Driving performance Motivating and inspiring Change management</td>
<td>6%</td>
<td>16%</td>
<td>26%</td>
<td>39%</td>
</tr>
</tbody>
</table>

ETHICS, INTEGRITY AND PROFESSIONALISM
From insight to impact

Data capture
Reports
Analysis
Insight
Influence
Impact

Comfort zone
Value

Technical accounting expertise
Commercial awareness & analytical skills
Influencing & leadership skills

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CGMA Syllabus and Examination
2015 CIMA Syllabus

Strategic Level
- E3 Strategic Management
- P3 Risk Management
- F3 Financial Strategy

Management Level
- E2 Project and Relationship Management
- P2 Advanced Management Accounting
- F2 Advanced Financial Reporting

Operational Level
- E1 Organizational Management
- P1 Management Accounting
- F1 Financial Reporting and Taxation

Enterprise Pillar
Performance Pillar
Financial Pillar

Pathway to CGMA

CGMA Powered by AICPA | CIMA
The CGMA Exam Process

Pre-Exam Research
- Role Simulated
- Stakeholders
- Company Information
- Scenario

Case Study Examination
- Trigger #1
  - New Resources
  - Tools
  - Task #1
- Trigger #2
  - New Resources
  - Tools
  - Task #2
- Trigger #3
  - New Resources
  - Tools
  - Task #3

Illustrative process only. Pre-read timing may change. Number of ‘triggers’ or tasks that are presented to students in the three hour exam may be between three and six and various length.
Enhancing Your Career with the Prestigious CGMA Certification

G. Richard French
PhD, CPA, CGMA
Professor of accounting in the School of Business
Indiana University Southeast

Richard E. Coppage
DBA, CPA, CGMA, CMA, CFM
Professor of accounting in the School of Business
University of Louisville
Humble Pies
2014 AICPA Student Case Competition

Your big chance to deliver an intellectual smackdown.
Setting the Stage

Your Role

• You’ve just been hired as Controller for **Humble Pies, Inc.**, the genius of childhood neighbors and best friends who have become expert pie bakers.

• Their success has put them in need of your business and financial acumen.
Humble Pies – Company and Product Info

- Small business loan – 60,000 sq. ft. facility
- Revs - $6.1M } Projected $9.3M – new major customer
- Employees and Plant
  - 8 salaried employees, 50 hourly@ $8.50 - $12.50 per hour; 3-4 warehouse workers – 2 shifts/day; 2 supervisors/shift
  - Plant capacity - currently $1M/month; with $500k investments in ovens, mixers, etc. } $1.5M/month
  - 60% of annual volume } Oct – Dec – Overtime and weekends
- Pie products
  - Singles – served ready to eat
  - 9 inch pies – pre-sliced sold to distributors/food service/stores
  - 10 inch pies – custom labels, plastic domes – can be full pie, duo pack or variety of flavors
Humble Pies – Production info

- **Pie Production**
  - Four-step process – Mixing, filling, baking, processing
  - Five crusts mixed in large batches
  - Fillings produced in smaller batches, based on schedule
  - Crusts filled, placed on trays for baking (15-20 at a time)
  - Cooling, decorating, slicing, packaging, labeling, frozen
  - Approx. 1 week per order – just in time; goal 1 pie/5 seconds

- **Production lines**
  - Three production lines - little difference in flavors/ingredients
  - Process varies primarily on packaging
    - Variety packs – labor intensive
    - Boxes, plastic containers, package tops, labels
  - Label designs customer provided – vary by order
Humble Pies – Current Reports

**Labor Report –**
- Projected # of workers, hours per day, workdays per month * hourly rate
- + Salaried production workers pay
- + Payroll added costs (taxes, FICA, etc.)

Total Labor Dollars / Projected Sales = **Projected Labor %**

**Current target projected labor @ 20% of sales**

**Overhead**
- Currently allocate the same amount of overhead to every output unit
- However, owners believe labor and OH vary greatly by product
Humble Pies
Select Financial Data – May 2014

Currently
• Managing labor costs – 20% of sales;
• Targeting 17% gross margin

<table>
<thead>
<tr>
<th>Cost Category</th>
<th>Behavior</th>
<th>May ‘14</th>
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<tbody>
<tr>
<td>Sales</td>
<td></td>
<td>$766,667</td>
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<tr>
<td>Expenses:</td>
<td></td>
<td></td>
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<tr>
<td>Raw Materials</td>
<td>Variable</td>
<td>$327,934</td>
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<tr>
<td>Bakery labor</td>
<td>Mixed</td>
<td>$158,767</td>
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<tr>
<td>Administration Salaries</td>
<td>Fixed</td>
<td>$41,367</td>
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<tr>
<td>Supplies</td>
<td>Variable</td>
<td>$3,833</td>
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<tr>
<td>Freight &amp; Shipping-In</td>
<td>Variable</td>
<td>$4,907</td>
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<tr>
<td>Freight &amp; Shipping-Out</td>
<td>Variable</td>
<td>$64,707</td>
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<tr>
<td>Utilities – Electricity</td>
<td>Variable</td>
<td>$9,813</td>
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<tr>
<td>Utilities – Gas (ovens)</td>
<td>Variable</td>
<td>$3,067</td>
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<tr>
<td>Water</td>
<td>Variable</td>
<td>$920</td>
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<tr>
<td>Repairs &amp; Maintenance</td>
<td>Fixed</td>
<td>$4,293</td>
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<td>Rent expense</td>
<td>Fixed</td>
<td>$19,167</td>
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<tr>
<td>Telephone &amp; Internet</td>
<td>Fixed</td>
<td>$2,300</td>
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<tr>
<td>Co-owners’ salary</td>
<td>Fixed</td>
<td>$25,300</td>
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<tr>
<td>Brokers’ commissions</td>
<td>Variable</td>
<td>$30,667</td>
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<tr>
<td>Total Expenses</td>
<td></td>
<td>$697,042</td>
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<tr>
<td>Operating Profit</td>
<td></td>
<td>$69,625</td>
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<tr>
<td>Income Tax</td>
<td></td>
<td>$22,280</td>
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<tr>
<td>Net operating income</td>
<td></td>
<td>$47,345</td>
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</table>

Other data:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit volume</td>
<td>64,500</td>
</tr>
<tr>
<td>Average Operating Assets</td>
<td>$5,500,000</td>
</tr>
<tr>
<td>Minimum Rate of Return</td>
<td>8.00%</td>
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</tbody>
</table>
Humble Pies – Investment Opportunities

- Option 1 – Fast Food Chain RFP for upscale mini pies
  - 3 year agreement; guaranteed for 2,200,000 pies @ $1.50
  - Investment in packaging equipment required
    - $500,000 cost; 10-year life; expected 15% net profit

- Option 2 – Labeling machine investment
  - Cost $500,000; 5-year life
  - $14,500/month savings in labor costs
  - $13,000/month increased throughput revenue, with 20% markup on incremental production costs (excluding new investment)
What information does Humble Pies need?

1. What kind of information should Humble Pies be able to provide?

2. Which of the costs should be treated as product costs and which as period costs for decision-making?

3. For each cost identified, how would you track it?
   ▪ Also separate bakery labor into four categories – production line (mixing, filling, baking), packaging, sanitation, warehouse

4. For each cost identified, how would you assign that cost to attain reasonably accurate product costs?
   ▪ e.g. Standard costs, customer order, assign using allocation base (which base would you use?)
Which investment should Humble Pies make?

1. Assess the opportunities in terms of increased profitability and ROI for Humble Pie’s investment options.

2. Comment on the strategic, technical and risk factors that are relevant to this decision.

3. What action do you recommend for Humble Pies at this time?
AICPA and CGMA Resources
AICPA Key Committees

• Pre-certification Education Executive Committee (PcEEC)

Objective:
• To assist the AICPA in achieving its academic initiatives, programs and partnerships to grow and engage a community of diverse, well prepared, highly qualified CPAs, CGMAs and other AICPA-supported specializations.

• Business & Industry Executive Committee (BIEC)

Objective:
• The AICPA Business & Industry Executive Committee serves in a strategic advisory capacity to the AICPA Business, Industry & Government team and AICPA leadership in support of initiatives, activities, products and services intended to meet the needs of members in business.
Educator Awards Programs

AAA MAS Awards
- Best Early Career Researcher
- Most Significant Impact on Practice
- Lifetime Contribution

Other AICPA Educator Awards
- AICPA/AAA Notable Contributions to Accounting Literature
- AICPA Distinguished Achievement in Accounting Education
- Effective Learning Strategies Awards
  - Bea Sanders/AICPA Innovation in Teaching
  - George Krull/Grant Thornton Innovation in Junior and Senior-Level Teaching
  - Mark Chain/FSA Innovation in Graduate Teaching
Resources – AICPA.org

Auditing Classroom Materials
Financial Accounting and Reporting Classroom Materials
Tax Classroom Materials
Ethics Classroom Materials
Management Accounting Classroom Materials

Fraud and Forensics Classroom Materials
Personal Financial Planning
Business Valuation
Information Management and Technology Assurance

Classroom Materials for Accounting Educators

Core Competency Framework: Developed by educators to define a set of skills-based competencies needed by all students entering the accounting profession.

Accounting Professors’ Curriculum Tool: This resource provides award winning curricula deemed innovative and designed to expand the knowledge of students.

CGMA Competency Framework: Designed to help accountants and their employers understand the knowledge requirements and assess skills.
AICPA Curriculum Resource Tool

• Updated every January
• Customizable Nxtbook format
• Award-winning resources
  – Bea Sanders
  – Mark Chain
  – George Krull
Management Accounting Classroom Resources

Management Accounting Classroom Materials

Management accounting provides managers with necessary accounting information to make informed business decisions.

The below are supplemental curriculum resources that the AICPA Academics team has reviewed and can be used in the classroom.

Award-Winning Curricula

CAREER CASE STUDIES

Management Accounting Resources for Higher Education

Visit cgma.org/classroomresources
CGMA - Robust portfolio of resources

Reports

Big Data

Fraud Risk

Innovation

Tools

Value Chain

Building Resilience

CGMA: TOOLS
Responding to ethical dilemmas: CGMA ethics resources

CGMA BRIEFING
INTEGRATED THINKING

CGMA TOOL
Scenario planning: Providing insight for impact

CGMA MAGAZINE
CGMA Magazine
AICPA Teaching Resources

- A Business Communication Module for an MBA Managerial Accounting Course
- A "Sweet Way" to Teach Managerial Accounting: The Cookie Project
- Balanced Scorecard Simulation Team Project
- Increasingly Lean Accounting to a Manufacturing Simulation: A Teaching Note
- Increasing Student Engagement through a Manufacturing Plant Tour
- Lean Accounting in Support of Lean Manufacturing: Ronny the Robot Simulation
- Regression Analysis: An Instructional Resource for Cost/Managerial Accounting
- The "Make-It" Project
- UCare: A Business Plan Project for Managerial Accounting Courses

Accounting Professors Curriculum Resource Tool
CGMA Reports and Tools

- **Management Accounting Principles, Competencies and Tools**
  - Global Management Accounting Principles
  - CGMA Competency Framework
  - Essential Tools for Management Accountants

- **Business Performance and Risk Management**
  - Building world class businesses for the long term
  - Rethinking the value chain
  - Performance Measurement and Risk Management

- **Big Data and Analytics**
  - CGMA briefing: Big data
  - From insight to impact - unlocking opportunities in big data

- **Fraud, Ethics and Governance**
  - Fraud risk management: A guide to good practice
  - Ethical culture change at Siemens: a case study
  - Ethics, risk and governance through the extended value chain

- **Sustainability and Integrated Reporting**
  - CGMA briefing: Integrated thinking
  - Ten Key Elements to Sustainable Business Practices in SMEs
  - Accounting for natural capital in the value chain

**Business Performance and Risk Management**
- Strategy mapping tool
- How to set the right performance targets: a 10 step target setting tool
- How to develop non-financial KPIs
- How to manage customer value
- How to communicate risks using a heat map

**Big Data and Analytics**
- How to turn data into decisions
- How to evaluate capital expenditures
- Three approaches for valuing intangible assets

Visit cgma.org/classroomresources
Materials
aicpa.org/KSCPA2016

kwitt@aicpa.org

Thank You