

All About the Bite!

Increasing Student Engagement Through the Use of *Shark Tank*

Brian Huels
University of Wisconsin-Whitewater

Jill Weber
University of Wisconsin-Whitewater

This paper presents an active learning exercise to help introductory accounting students learn financial statement analysis. Utilizing television media, students watch a segment from the hit reality series Shark Tank, during which they are exposed to a start-up business. Students switch between instructor-led class discussion and small-group collaborative work to analyze the business, calculate financial ratios, and compare the business to a fictitious competitor. The results from pre- and post-exercise questionnaires suggest that the activity is a valuable use of class time and increases students' ratings of the usefulness of financial statements and financial statement analysis.

INTRODUCTION

Many introductory financial accounting courses focus on core bookkeeping skills needed to record business transactions and ensure those transactions are reflected in the financial statements (Wells, 2018). Although important, coverage of these skills alone is not enough to adequately prepare students for the complex business world they will be entering (The Pathways Commission, 2012), as accounting information is derived from and related to “a much larger information system” (Wells, 2018, p. 42). Therefore, in order to enhance students' future success in business, students need opportunities to engage in increased collaborative and critical thinking in order to understand the importance of accounting to a business (Brewer & Stout, 2014; Siriwardane, 2014). For these reasons, an exercise that relies on real-world data and intertwines critical thinking skills is timely and appropriate.

We present an in-class, small-group, active-learning exercise where students are given the opportunity to build and analyze estimated financial statements for a startup company featured on the hit reality television series *Shark Tank*. The use of this popular television series is intended to pique students' interest in the learning exercise, help students establish connections between financial analysis and real-world scenarios, and make the exercise more engaging and entertaining.

CASE MATERIAL

Case Overview

Case-based learning, including the usage of real life situations, helps students develop skills that are crucial to future success (Gates & Burke, 2015). The goal of our case is to foster the development of these skills while helping students learn financial statement analysis. At the start of the exercise, students watch a short segment from *Shark Tank* that features the business Cousins Maine Lobster. Cousins Maine Lobster is a food truck business located in California, which first appeared on *Shark Tank* on October 19, 2012 (Burnett).¹ Cousins Maine Lobster successfully obtained funding on the show, and as of 2018, has grown from one food truck to a multi-million dollar company with 20 food trucks and seven restaurant locations (Cousins Maine Lobster, 2018).

After viewing the video, students work in small groups to discuss the business, answer critical-thinking questions, calculate financial ratios, and compare the ratios of the business with Lobsters R' Us (a fictional competitor). Periodically throughout the exercise, the instructor addresses the class as a whole to guide the discussion and facilitate progress into the next steps. The suggested outline for facilitating this financial analysis exercise is included in Table 1. All student handouts are included in Appendices B through F. For instructors who do not have access to or do not wish to use video media, a written synopsis of the case is also included (Appendix A). Electronic versions of the student handouts and answer keys are available upon request.

TABLE 1
EXERCISE OUTLINE

Step	Suggested time (minutes)
1. Students watch the Cousins Maine Lobster <i>Shark Tank</i> video clip and fill out the <i>Business Info Questionnaire (Appendix B)</i> .	10
2. The instructor leads the class through questions 1-4 of the <i>Preliminary Analysis Questions (Appendix C)</i> .	5
3. Students break into small groups and answer the remainder (questions 5-15) of the <i>Preliminary Analysis Questions</i> .	10
4. The instructor leads the class through a discussion of the groups' responses to questions 5-15 of the <i>Preliminary Analysis Questions</i> .	10
5. The instructor distributes the <i>Financial Statements (Appendix D)</i> and the <i>Analysis and Ratio Calculation Sheet (Appendix E)</i> . In the small groups, students calculate the various financial statement ratios.	15
6. The instructor leads the class through a discussion of the ratio calculations and interpretations.	10
7. The instructor distributes the <i>Competitor Comparison Sheet (Appendix F)</i> . In groups, students evaluate how Cousins Maine Lobster is performing compared to a competitor.	10
8. The instructor leads a concluding discussion.	5
Total:	75

This outlined format allows the exercise's learning objectives to cover more traditional, quantitative learning objectives (such as "compute financial ratios") as well as learning objectives more focused on critical thinking (such as "integrate related business concepts [marketing, management, etc.] with the

influence that the concepts can have on accounting information”). The exercise also enables students to learn in an active and collaborative setting, which helps them to engage more deeply with the material.

The results from pre- and post-exercise questionnaires suggest that the activity increases students’ ratings of the usefulness of financial statements and financial statement analysis. Additionally, after completing the exercise, students perceive financial statement analysis to be a more interesting topic and they view financial statements as being more important. Importantly, students find the activity to be a valuable and fun use of class time, and they especially enjoy the use of the *Shark Tank* video segment. Students indicated that they would like to see more use of *Shark Tank* in the classroom.

***Shark Tank* and Learning Objectives**

Financial statement analysis highlights to students how the financial statements can be used and how decisions can be made based upon the reported information. As many of the students enrolled in introductory accounting courses are not accounting majors, financial statement analysis should be of heightened interest to them, as it represents a topic they may perceive to be more personally relevant for future usage in their careers (Turner, Vance, & Fulmer, 2006). For accounting majors, financial statement analysis should be of even more interest, as its importance is highlighted by its inclusion in the Business Environment and Concepts (BEC) and Financial Accounting and Reporting (FAR) sections of the Uniform CPA Examination (AICPA, 2016).

It is certainly possible to teach financial statement analysis as a set of ratios to compute. However, without considering the underlying business or integrating qualitative considerations, students are unlikely to engage in much critical thinking about this topic. As critical and creative thinking skills are needed for student success (Chen, 2017; Lim et al., 2016; Jones, 2014), this paper provides an innovative and interactive activity that encourages these types of skills related to the usefulness of financial statements and financial statement analysis in making business decisions.

At the beginning of the exercise, students watch the Cousins Maine Lobster *Shark Tank* segment. A review of extant literature shows that the television show *Shark Tank* has received very limited attention to date in the realm of accounting instruction.² The usage of the *Shark Tank* video segment is intended to accomplish three tasks. First, the video “wakes up” the students and renders them more alert for the activities that follow. As Berk (2009) explains, when a professor is lecturing, students are more likely to be experiencing Alpha brainwaves, where the brain is in a more restful state. However, by showing an exciting video, professors can encourage Beta brainwaves, where the brain is alert, attentive, and focused. Second, the use of video allows for the “capability to communicate on both emotional and cognitive levels” (Holtzblatt & Tschakert, 2011, p. 107) providing a greater likelihood of capturing student interest (Marshall, 2002; Buckmaster & Craig, 2000). As the selected video is based on real-world information, student interest is further sparked as the segment introduces two young, relatable, and enthusiastic entrepreneurs. College students, who are overwhelmingly young, may identify more strongly with the young entrepreneurs and the “cool factor” of food trucks than with a more traditional textbook example. This follows Berk’s recommendation that instructors select videos that are “in the students’ world” (2009, p. 8). Finally, on a practical level, the video communicates information that is necessary to complete the class activities, while also providing a myriad of real-world information related to operating and growing a business.

To start the activity, students are provided with a *Business Info Questionnaire*. A sample of the questionnaire can be found in Appendix B. This questionnaire is intended to be filled out while students are watching the video, directing their attention to the most important information of the video segment.⁴ As an instructor note, it is recommended not to show the conclusion or the final stages of the *Shark Tank* negotiation. Holding back these parts of the video segment will help eliminate bias in what the students think about the business venture. Additionally, the conclusion serves to be a nice piece of media to return to after the students make up their own decisions about the business. Proper trimming of the video should allow for a segment that delivers all of the needed information for the exercise while only taking up a few minutes of class time.³

After watching the video, the remainder of the class period is spent in alternating periods of small-group collaborative work and instructor-led discussion. The small-group work allows students to engage in collaborative learning, in which students work together towards a common goal, and active learning, in which students become active participants in the learning process. Prior research has found that both of these methods are effective and improve students' achievement and retention (Prince, 2004). The instructor-led discussion allows the instructor to manage the timing of the exercise, keep students on track, answer questions, dispel misconceptions, and review important concepts. Specific learning objectives and how they are accomplished are shown in Table 2.

TABLE 2
MAPPING OF LEARNING OBJECTIVES

Learning objective	Accomplishment of learning objective in the <i>Shark Tank</i> financial analysis exercise
1. Calculate the implied value of a business based on partially provided equity information.	<i>Preliminary Analysis Questions: Q1</i>
2. Interpret horizontal and vertical financial statement analyses	<i>Preliminary Analysis Questions: Q2- Q4</i>
3. Evaluate the past and future success potential of a business.	<i>Preliminary Analysis Questions: Q5, Q6; Analysis and Ratio Calculation Sheet; Competitor Comparison Sheet</i>
4. Integrate related business concepts (marketing, management, etc.) with the influence that the concepts can have on accounting information.	<i>Preliminary Analysis Questions: Q5 Instructor led discussion.</i>
5. Prepare estimates related to how a business operates (assets, liabilities, capital invested, and expenses)	<i>Preliminary Analysis Questions: Q7- Q15</i>
6. Compute financial ratios	<i>Analysis and Ratio Calculation Sheet</i>
7. Interpret financial ratios	<i>Analysis and Ratio Calculation Sheet; Competitor Comparison Sheet</i>
8. Recognize the importance of using ratios when analyzing financial statements.	<i>Pre- and post-exercise questionnaire (Q1, Q2, Q7)</i>
9. Engage in teamwork with peers	<i>Preliminary Analysis Questions: Q5-Q15; Analysis and Ratio Calculation Sheet; Competitor Comparison Sheet</i>

Implementation Guidance

The Cousins Maine Lobster exercise is intended to be used in introductory accounting classes, though it could be easily modified to function in more advanced accounting and finance courses. Concepts related to marketing, business growth, management, internal controls, to name a few, are all topics that could be discussed. For implementation in higher level courses, instructors may consider incorporating concepts related to return on investment, present value, lease versus buy, budgeting, and forecasting. Additionally, in higher level courses, instructors may consider having the students forecast Cousins Maine Lobster's financial statements after receiving funding from the sharks and opening a second food truck.

The exercise is designed to be completed in one 75-minute class period, although it is flexible enough to be spread across two class periods. To allow time to complete pre- and post-exercise questionnaires,

the authors spread the exercise over two class periods, breaking up the exercise between steps 6 and 7 (Table 1). Another suggested breaking point is after step 4. Regardless of how the instructor chooses to administer the exercise, the basics of financial statement analysis should be covered in class prior to beginning the exercise. The exercise is designed as a fun and effective method for students to engage with and practice material that the instructor has already introduced.⁵ Therefore, it is primarily intended to replace class time that would typically be spent in traditional ratio calculation problems (such as exercises found at the end of a textbook chapter).

This activity provides a setting where students are able to work in groups and talk through the operations and accounting of a start-up business. Within groups and with assistance from the instructor, this activity should foster a plethora questions, assumptions, and estimates from students. These questions, assumptions, and estimates should be encouraged, as the ability to ask good questions is of critical importance in today's business setting (McKinney, Yoos, & Snead, 2017). Additional notes and recommendations for the delivery of the various handouts are included in Table 3.

**TABLE 3
IMPLEMENTATION NOTES**

Student handout	Notes
<i>Business Info Questionnaire (Appendix B)</i>	Students should complete the <i>Business Info Questionnaire</i> as they watch the video segment.
<i>Preliminary Analysis Questions (Appendix C)</i>	<p>Questions 1-4 should be discussed as a class. Students should complete questions 5-15 in small groups, followed by a class discussion.</p> <p>While the students are working, write the following headings on the board: <i>Interested?</i>, <i>Useful Life</i>, <i>Salvage Value</i>, <i>Overhead Items</i>, <i>Loan Amount</i>, <i>Interest Rate</i>, <i>Assets</i>, <i>Liabilities</i>, <i>Monthly Pay</i>, <i>Invested Amount</i>. During the class discussion, write groups' answers under each heading.</p> <p>Many of the questions are open-ended with no "correct" answer. Emphasize to students the questions are intended to facilitate discussion, judgement, and critical thinking.</p>
<i>Financial Statements (Appendix D)</i>	<p>The <i>Financial Statements</i> should not be distributed to students until after the <i>Preliminary Analysis Questions</i> have been discussed, as it may affect students' discussions and answers.</p> <p>Cousins Maine Lobster is not a publicly traded company, so the <i>Financial Statements</i> provided are fictional. Some of the line items included were estimated during the <i>Preliminary Analysis Questions</i>. Explain to students that the numbers provided on the <i>Financial Statements</i> should be used for any computations so everyone in the class gets the same answers. If desired, for higher level courses, students can prepare their own financials and use this information. Furthermore, upper level courses can also use this activity for preparing and estimating growth projections.</p>

<i>Analysis and Ratio Calculation Sheet (Appendix E)</i>	Inform students that ratio formulas are on the back of the sheet.
<i>Competitor Comparison Sheet (Appendix F)</i>	<p>The <i>Competitor Comparison Sheet</i> should not be distributed until after the <i>Analysis and Ratio Calculation Sheet</i> has been discussed, as it contains the correctly calculated ratios.</p> <p>The competitor, Lobsters “R” Us, is a fictional company.</p>

CLASSROOM TESTING

The Cousins Maine Lobster exercise was administered toward the end of the semester in three sections of Introduction to Financial Accounting at a large public university in the Midwest. The pre- and post-exercise questionnaires were completed by 96 and 94 students, respectively. Students were asked to rate the extent to which they agreed or disagreed with eight statements. Results of the questionnaires are in Table 4.

TABLE 4
PRE- AND POST-EXERCISE QUESTIONNAIRE

Statement	Pre-test Mean (std. dev) n = 96	Post-test Mean (std. dev) n = 94	Difference = Post-test - Pre-test
1. Financial statement ratios help unveil unique relationships between financial statements.	3.771 (.718)	4.096 (.657)	.325**
2. Financial statement ratios help unveil unique relationships within the same financial statement.	3.698 (.809)	4.074 (.765)	.377**
3. The income statement is useful in assessing the past performance of a business.	4.250 (.871)	4.186 (.762)	-.064
4. The balance sheet is useful in assessing the past performance of a business.	3.875 (1.018)	4.080 (.723)	.205
5. The income statement is useful in making judgment about a business's future performance potential.	3.885 (.928)	4.167 (.727)	.281**
6. The balance sheet is useful in making judgment about a business's future performance potential.	3.865 (.925)	4.037 (.797)	.173
7. Financial statement ratios should always be calculated when reviewing financial statements.	3.677 (.840)	4.191 (.859)	.514***
8. Financial statement analysis is an interesting topic.	3.427 (1.034)	3.787 (1.015)	.360**

Note: Table 4 presents the results of the pre- and post-exercise questionnaires. Students were asked to rate their level of agreement with the 8 statements, with 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree.
*Significant at the 0.05 level; **Significant at the 0.01 level; ***Significant at the 0.001 level.

After completing the exercise, students were more likely to agree with statements 1, 2, 5, 7, and 8. This suggests that as a result of the activity, the average student reports an increase in his/her level of understanding of the usefulness of ratios (statements 1, 2, and 7) and the income statement (statement 5). In addition, there is a significant increase in the level of student interest related to financial statement analysis (statement 8). There was no difference in students' pre- and post-exercise agreement with statements 3, 4, and 6. This suggests that, late in the semester, students are already aware of the usefulness of the income statement (statement 3) and the balance sheet (statements 4 and 6), and this perception was not altered by the exercise.

In addition to the identical pre- and post-exercise questionnaires, students also completed an extended post-exercise survey to obtain their thoughts on the exercise. The post-exercise survey was completed by 94 students. Students were asked to rate the extent to which they agreed or disagreed with 18 statements. Results of the survey are in Table 5.

TABLE 5
POST-EXERCISE SURVEY

Statement	Posttest Mean (std. dev) n = 94	Significance versus 4 <i>Agree</i>
1. This activity helped me to better understand the difference between an income statement and balance sheet.	3.548 (.904)	***
2. This activity helped me to better understand why a balance sheet has to balance.	3.532 (.936)	***
3. This activity helped me to better understand how past business operations are reflected in financial statements.	4.085 (.743)	
4. This activity helped me to better understand the importance of financial statements.	4.053 (.767)	
5. This activity helped me to better understand the usefulness of solvency ratios.	4.287 (.863)	**
6. This activity helped me to better understand the usefulness of asset quality ratios.	4.269 (.739)	**
7. This activity helped me to better understand the usefulness of leverage ratios.	4.191 (.871)	*
8. This activity helped me to better understand the usefulness of overall performance ratios.	4.301 (.763)	***
9. This activity helped provide a real-world example of how financial statements can be used.	4.500 (.600)	***
10. This activity helped provide a real-world example of how financial statement analysis can be performed.	4.362 (.637)	***
11. This activity helped me to think through the components a business would need to operate in the real-world.	4.247 (.816)	**
12. Completing this activity as a team was beneficial to my understanding of the issues.	4.064 (.853)	
13. This activity was a valuable use of class time.	4.372 (.892)	***
14. This activity was a useful learning experience.	4.372 (.776)	***
15. The use of the television show, <i>Shark Tank</i> , enhanced the learning experience.	4.511 (.744)	***
16. I would like to see more use of <i>Shark Tank</i> (and similar shows) in the classroom.	4.617 (.607)	***
17. I would like to see more activities like this introduced during class time.	4.394 (.691)	***
18. I enjoyed the activity.	4.372 (.842)	***

Note: Table 5 presents the results of the post-exercise survey. Students were asked to rate their level of agreement with the 18 statements, with 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree. Means are compared to a value of 4.
*Significant at the 0.05 level; **Significant at the 0.01 level; ***Significant at the 0.001 level.

When compared with a value of three (neutral), all 18 statements are significant at the 0.001 level (untabulated). This suggests that students either agree or strongly agree with all 18 statements. Table 5 compares each of the 18 statements to a higher benchmark of four (agree). The evidence suggests that students perceive the Cousins Maine Lobster exercise to be a valuable (statement 13) and enjoyable (statement 18) use of class time, and students believe that it enhances their understanding of financial statements, ratios, and financial statement analysis. In addition, students especially appear to appreciate the inclusion of the *Shark Tank* video segment, as the two statements with which they agreed most strongly were statements 15 and 16 (“the use of the television show, *Shark Tank*, enhanced the learning experience” and “I would like to see more use of *Shark Tank* (and similar shows) in the classroom”). Statements 1 and 2 showed the lowest posttest mean with scores averaging slightly above neutral (3). However, as this exercise was administered late in the semester, it believed that students already had a firm understanding on the differences between the income statement and balance sheet (statement 1) and that a balance sheet has to balance (statement 2). Although still displaying mean scores over 4, indicating agreement by the respondents, statements 3, 4, and 12 were not significantly different from 4. Future administering of the exercise could be tested outside of the group environment with students completing as individuals; however, the 4.064 mean score (statement 12) indicates that the overall consensus is that the group design is effective. Qualitatively speaking, student thoughts on the activity were overwhelmingly positive including comments such as “I like that we could relate it to the real world and how it affects a business”, “I really liked how we walked step by step through the show/process. Really showed me how financials work”, and “It was a great use of class time. Very interactive. Makes you think”.

CONCLUDING COMMENTS

This paper presents the Cousins Maine Lobster *Shark Tank* financial analysis exercise, which is an in-class, small-group, active-learning exercise for use in introductory accounting courses. The use of ABC’s hit reality television series *Shark Tank* draws students’ attention and helps them to identify with the interesting, real-world business they analyze during the exercise. Throughout the exercise, students repeatedly switch between instructor-led class discussion and small-group collaborative learning, which should discourage lapses in attention. Through the use of less structured, open-ended questions in addition to objective calculation questions, students are given the opportunity to engage in both critical thinking and quantitative practice. In doing so, the exercise allows for the accomplishment of more critical thinking-oriented learning objectives as well ratio calculation and interpretation. Results indicate that students enjoy the exercise and particularly appreciate the inclusion of the *Shark Tank* video segment. Finally, results suggest that students believe the exercise enhances their understanding of the topic. After completing the exercise, students have a heightened opinion of the usefulness of financial statements and financial statement analysis.

ENDNOTES

1. *Shark Tank* features a panel of celebrity investors (the “sharks”) who consider pitches from entrepreneurs seeking investment in their businesses. Similar type shows exist in other countries, including: Dragon’s Den (Canada, England, Poland), Money Tigers (Japan), Tu Oportunidad (Spain), Den D (Czech Republic), and Liojonan Kita (Finland). Cousins Maine Lobster appeared on Season 4, Episode 6 of *Shark Tank*. As of this writing, individual episodes of *Shark Tank* are available for purchase for a small fee on popular streaming websites, such as Amazon Prime Video. Under 17 U.S.C. §110(1), “display of a work by instructors or pupils in the course of face-to-face teaching activities of a nonprofit educational institution, in a classroom or similar place devoted to instruction” is not an infringement of copyright as long as the copy is lawfully made.
2. Kokina, Pachamanova, & Corbett (2017) included supplemental *Shark Tank* video segments to help introduce students to their case related to data visualization and analytics.
3. In this exercise, the *Shark Tank* video segment is used as a starting point to gain students’ attention and provide a setting and general information for the activity. For research on broader uses of video in the classroom, see Berk (2009), Roodt and Peier (2013), and Duffy (2008).
4. Cousins Maine Lobster is the first pitch aired on the Season 4, Episode 6 of *Shark Tank*. The authors recommend showing the first eight minutes of the Cousins Maine Lobster segment. The remainder of the Cousins Maine Lobster segment can be shown after the students complete the exercise.
5. Before starting the exercise, instructors should have briefly discussed a) the purpose of financial statement analysis, b) basic horizontal and vertical analysis, and c) the need to compare ratios to something (e.g. a competitor or the industry average).

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Appendix A - Business Information (for those not using video)

Note to Instructor: The information provided here is intentionally vague to mimic the *Shark Tank* video segment, as well as to leave room for discussion and encourage student questions. If the instructor desires, information could be inserted about the sale of beverages and side dishes, fixed costs such as operating permits and employee salaries, and the reasons why the cousins are having to turn away business.

BACKGROUND:

Jim and Sabin are cousins and together own Cousins Maine Lobster (CML). The business currently operates out of a single food truck in Los Angeles, California. Currently, business is booming. In fact, business is so good they feel that they need another food truck. Knowing that you have some accounting knowledge, Jim and Sabin have prepared some information for you to review.

BUSINESS INFO:

Cousins Maine Lobster provides gourmet lobster sandwiches out of a food truck in Los Angeles, California. The food truck is obviously mobile so it can park and do business in a variety of locations. The lobster, bread, and other key ingredients related to their lobster sandwiches are shipped fresh daily from Maine to Los Angeles. As Jim and Sabin grew up in Maine, they have relationships with key suppliers in the Maine area that they feel provide their business with a competitive advantage. The remainder of needed items and ingredients are obtained locally.

So far the food truck as has been open for two months and generated \$150,000 in sales (\$65,000 in month one, \$85,000 in month two). The lobster roll/sandwich is the only product on the menu. It sells for \$13.00 and costs \$5.85 to produce.

The food truck costs the cousins approximately \$65,000 to get on the street. Related to monthly expenses, the monthly overhead (with employees) is \$20,000.

Business is so good right now, the cousins are turning down business. Knowing you have some accounting and business knowledge, Jim and Sabin would like your help in reviewing their company. More importantly, they are hoping that they can use the current success of their business to find a third investor for their business. Ideally, they would love to sell 5% of Cousins Main Lobster in exchange for \$55,000.

Appendix B – Business Information Questionnaire

1. What amount of money are Jim and Sabin seeking from the Sharks?
2. What percent of the company is being offered for purchase?
3. What do Sabin and Jim feel they need to add to the business?
4. What have the sales of the business been to date?
5. How long has the business been open?
6. How many trucks does the business currently have?
7. What does their lobster roll sell for to the customer?
8. What does the lobster roll cost?
9. What did they pay for their truck?
10. What is their monthly overhead (in dollars)?
11. What were sales for
 - a. Month one _____.
 - b. Month two _____.

Appendix C - Preliminary Analysis Questions

1. Based on the numbers provided, what do Jim and Sabin feel that 100% of Cousins Maine Lobster is worth?
2. What was the percent sales growth between the first and second month (horizontal analysis)?
3. What is the gross profit (in dollars) per sandwich?
4. What is the gross profit percentage of a sandwich (vertical analysis)?
5. What do you think about the business?
6. Would you be interested in investing in this business? Explain your answer.
7. What do you think the useful life of the food truck would be?
8. What do you think the salvage value of the truck would be?
9. What do you think is included in the “overhead” of the business (in words)?
10. Do you think there is a loan on the truck? If yes, how much money do you think was borrowed when the truck was purchased?
11. Based on questions above (assuming a truck loan exists), what annual interest rate do you think is fair for the loan?
12. In addition to the truck, what other assets do you think the business might have (in words)?
13. In addition to the truck loan, what other liabilities might the business have (in words)?
14. Do you think Jim and Sabin receive pay for the work they perform? If yes, how much do you think they receive each month?
15. As owners, what amount of money do you think was initially invested into Cousins Maine Lobster by Jim and Sabin?

Appendix D – Financial Statements

Note to Instructor: Cousins Maine Lobster is not a publicly traded company. The financial statements presented above are fictional and based on estimates gathered during the viewing of the Shark Tank video segment. The class discussion related to the Preliminary Analysis Questions (Appendix C) should generate answers that are very similar to the accounts and number estimates provided above. For usage in an introductory accounting course, students are surprised how similar their compiled answers will mirror the above. Related to computational estimates, depreciation expense has been calculated using an asset cost of \$65,000, salvage value of \$5,000, and useful life of 8 years. Interest expense is calculated using an approximate loan balance of \$52,000 and an annual interest rate of 6%. Group answers during the class discussion will most likely closely align with these estimates.

<i>COUSINS MAINE LOBSTER</i>		
<i>INCOME STATEMENT (ESTIMATED)</i>		
<i>FOR THE TWO MONTHS (60 DAYS) ENDED XXXX</i>		
Sales	\$	150,000
Cost of Goods Sold		<u>67,500</u>
Gross profit	\$	82,500
Additional Expenses		
Advertising expense	\$	1,000
Depreciation expense		1,250
Employee wages expense		28,000
Gas expense		2,000
Interest expense		520
Miscellaneous expense		3,000
Owner wage expense		20,000
Payroll tax expense		2,000
Phone expense		400
Rent and permits expense		2,000
Repairs and maintenance expense		<u>1,600</u>
Total additional expenses	\$	<u>61,770</u>
Net income	\$	<u>20,730</u>

COUSINS MAINE LOBSTER
BALANCE SHEET (ESTIMATED)
END OF MONTH TWO

Assets		Liabilities	
<i>Current assets</i>		<i>Current liabilities</i>	
Cash	\$ 30,180	Accounts payable	\$ 3,000
Inventory	1,800	Credit card payable	2,000
Prepaid insurance	2,000	Truck loan payable - current	10,400
Total current assets	<u>\$ 33,980</u>	Total current liabilities	<u>\$ 15,400</u>
 <i>Property, Plant, and Equipment (non-current)</i>		 <i>Non-current liabilities</i>	
Truck with Equipment	\$ 65,000	Truck loan payable - Long-term	\$ 41,600
Less: Accumulated Depreciation	(1,250)		
Total Property, Plant, and Equipment	<u>\$ 63,750</u>	Total Liabilities	<u>\$ 57,000</u>
 Total Assets	 <u><u>\$ 97,730</u></u>	 Equity	
		Common Stock	\$ 20,000
		Retained Earnings	20,730
		Total Equity	<u>\$ 40,730</u>
		 Total Liabilities and Equity	 <u><u>\$ 97,730</u></u>

Appendix E – Analysis and Ratio Calculation Sheet

Using the provided financials (Appendix D), calculate the following items for Cousins Maine Lobster.

Note 1: To simplify calculations, assume 60 days in the 2 month period.

Note 2: If the company does not have an item (e.g. Income Tax Expense) use zero (0) for that item if needed in a calculation.

Note 3: If averages are not available, use the end number for any requested item.

- a. Solvency
 1. Current ratio
 2. Working capital
 3. Interest coverage

- b. Asset quality
 1. Inventory turnover
 2. Days in inventory
 3. Long-term asset turnover
 4. Total asset turnover

- c. Leverage
 1. Debt to equity
 2. Debt to assets

- d. Overall performance
 1. Return on equity percentage
 2. Return on assets percentage
 3. Gross Profit Percentage
 4. Net income percentage
 5. EBITDA
 6. EBITDA percentage

Appendix F – Competitor Comparison Sheet

The table below shows the results of calculations for Cousins Maine Lobster and Lobsters “R” Us (a fictional competitor). Review the table and evaluate how Cousins Maine Lobster is doing in comparison to Lobsters “R” Us. It may help you to circle the “winner” of each calculation as you look to determine your overall opinion for each grouping of calculations.

CATEGORY AND CALCULATION	COUSINS MAINE LOBSTER	LOBSTERS "R" US
SOLVENCY		
Current ratio	2.21	1.41
Working capital	\$18,580	\$11,986
Interest coverage	40.87	35.31
<i>Which business is more solvent?</i>	COUSINS MAINE LOBSTER	LOBSTERS "R" US

Justify your answer:

ASSET QUALITY		
Inventory turnover	37.5	53.93
Days in inventory	1.6	1.11
Long-term asset turnover	2.35	1.92
Total asset turnover	1.53	1.31
<i>Which business is more efficiently using assets?</i>	COUSINS MAINE LOBSTER	LOBSTERS "R" US

Justify your answer:

LEVERAGE		
Debt to equity	1.4	1.14
Debt to assets	0.58	0.53
<i>Which business is LESS leveraged?</i>	COUSINS MAINE LOBSTER	LOBSTERS "R" US

Justify your answer:

OVERALL PERFORMANCE		
Return on equity percentage	50.90%	33.98%
Return on assets percentage	21.21%	15.86%
Gross profit percentage	55.00%	60.34%
Net income percentage	13.82%	12.11%
EBITDA	\$22,500	\$22,586
EBITDA percentage	15.00%	13.29%
<i>Which business do you feel is performing better?</i>	COUSINS MAINE LOBSTER	LOBSTERS "R" US

Justify your answer: