

# **MEASUREMENT OF EARNINGS, TAXES AND E-COMMERCE: THE CASE OF CALYPSO COMMUNICATION**

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## **ABSTRACT**

This paper discusses a fictional case. A newly hired staff accountant, Marisa Martin, is employed by Calypso Communication, Inc. (CC). CC is an e-commerce firm offering both business-to-business services and on-line auctions. Marisa is asked to apply some recently implemented accounting and tax rules concerning e-commerce transactions. In this case, Marisa is asked to research and make recommendations on three issues surrounding the measurement of earnings for e-commerce firms:

1. Expensing versus capitalizing web site development costs;
2. Auction sites fees – amortization versus recognizing all at once;
3. Barter transactions – when is the fair market value known?

Marisa must also consider the rules in determining the federal income tax liability and discuss professional implications surrounding the issues presented. In addition, Marisa must face an ethical dilemma that does not have an easy solution. This case would be appropriate for use in an intermediate accounting, advanced accounting or tax course at the undergraduate level or a graduate financial accounting course.

### **LEARNING OBJECTIVES**

The learning objectives of the case are as follows:

1. Students will enhance their research skills by locating applicable rules in financial accounting and tax databases.
2. Students will gain knowledge about financial accounting and tax rules facing e-commerce businesses.
3. Students will exercise the opportunity to use professional judgment when applying relevant authority.
4. Students will evaluate an ethical dilemma and present a resolution.
5. Students will utilize critical thinking and writing skills.
6. Students will practice interpersonal and leadership skills (if assigned in groups).

### **INTRODUCTION**

**M**arisa Martin graduated from State University last May with a master's degree in accounting. A few days after graduation, Marisa took the CPA exam and passed it with flying colors. Marisa's parents were overjoyed. Not only is Marisa the first person in her family to go to college, she completed her undergraduate and master's degrees in a record four and a half years. Marisa hopes that her hard work and success will encourage her five younger siblings to attend college.

Since graduation, Marisa has been employed as an accountant at Calypso Communication, Inc. Marisa eagerly accepted the job with the publicly-traded company. Although her salary is far better than she could have imagined five years ago, Marisa is working hard to cover living expenses and repay student loans. Marisa's parents could not be more proud. They are so impressed with the company and so assured of Marisa's capabilities, they have put a substantial portion of their retirement investment portfolio in Calypso stock.

While her time at Calypso has been challenging, she has yet to experience a "year-end closing" of the accounting books and preparation of the annual financial statements that are included in the annual report and the SEC filing. However, she has heard whispers from other employees about Calypso's need to "meet the numbers" as expected by Wall Street stock analysts, investors and creditors. It is well known that the CEO of Calypso, Michael Mills, throws a huge bash for the employees each time the company meets its earnings targets. When the company first reported an annual profit in 2001, Mills flew forty employees and guests to Las Vegas for a "celebration weekend." Last quarter when the company exceeded the target earnings, each worker received a \$500 bonus. The top management and most of her co-workers believe that if Calypso's earnings are below the targets set by the investors, the stock price could drop substantially. This is a large concern for Calypso's managers because they would like to raise additional capital for expansion in the next twelve to fifteen months. It is also a large issue for the majority of employees who hold stock options in the company and company stock in their 401(k) retirement accounts.

### **BACKGROUND AND OVERVIEW**

Calypso Communication, Inc. (CC) was founded in January 1999 with Michael Mills serving as the Chief Executive Officer (CEO). Mills, an entrepreneur and former marketing executive, began

the company with his long-time friend and college roommate, Peter Phillips. Phillips worked for some of the largest computer companies in the world before leaving to start CC. Phillips serves the company as Chief Operations Officer (COO) and oversees all of the technical staff and work. Although Phillips possesses greater technical expertise than Mills and has worked for larger traditional companies, he agrees with Mills on the importance of maintaining a relaxed and open corporate atmosphere. They want the employees to feel valuable to CC and to have a good time at work. Many employees work on “flex-time” and telecommute part of the week. There is no formal dress code for the office and workers are encouraged to be casual and comfortable.

Mills and Phillips created the corporation to provide on-line, business-to-business services to its clients. CC primarily provides pricing information for businesses via the Internet. The information includes wholesale prices that companies might not want to make publicly available on the web. Buyers and sellers give pricing information for their products and can search for prices on purchases they need to make. Through this electronic procurement process, CC allows businesses to increase efficiencies and lower costs throughout the value chain. Business customers pay a monthly fee to log on directly to CC’s web site.

Business in this area has increased rapidly. More and more companies have found that using CC’s services decreases their purchasing costs. CC’s services also enable customers to shorten cycle times by creating faster access to market products. Some of CC’s clients have also reported that the quick and easy access to the extensive pricing information has allowed them to develop new revenue streams not previously pursued.

In late 2001, CC began developing an on-line auction site, allowing individuals and companies to list items for sale, and other individuals and companies to bid competitively on these items over a set period of time. The auction site began operating in 2002. Initially, company executives envisioned the majority of on-line auction customers would come from the business sector, crossing over from CC’s business-to-business service company. However, individuals have been using the service to buy and sell hard-to-find items, including antiques and collectibles.

Both business lines have grown considerably. Although CC recorded losses in 1999 and 2000, the company turned the corner and reported a modest net income in 2001 and is expected to show a net profit again in 2002. For the past six consecutive quarters, CC has met or exceeded earnings estimates set by outside analysts. Because of CC’s relatively small earnings, its current P/E ratio of 74 to 1 indicates the company is selling at a large premium. CC’s managers argue that the price-to-revenues ratio is a better measure for comparing CC to its competitors. Revenues are a major indicator of future possibilities for the majority of other e-commerce companies. The current price-to-revenues measure indicates CC is moderately priced and a good investment for future growth.

The year 2002 has not been without challenges to CC. The constant change in the business-to-business sector has meant that CC must continuously update and modify its web sites in order to satisfy its buying and selling customers. The increased activity in its on-line auction business has meant increased cash collections, but also an increase in employees needed to monitor the sites.

### **CONVERSATION BETWEEN KATE AND MARISA**

Marisa returns to her office on January 3, 2003 after the New Year’s holiday. The first person she sees is her boss, the controller Kate Kyle.

“Welcome back,” Kate opens.

“Thanks,” Marisa replies.

“I hope you are well-rested,” Kate continues. “We need to complete the closing for last year’s accounting records. Upper management is anxious to get the final results to make an announcement to the financial press. It’s important that we ‘tie down’ the numbers closely.”

Kate begins by describing the financial accounting issues that need to be researched and documented for the “year-end close.”

“Marisa, you first need to look at the web site development costs we incurred during 2002,” Kate starts. “Our costs are considerably higher this year than they were previously because we’ve been trying to keep up with the increase in demand. Contrary to prior years, a material amount of the costs this year will benefit future periods, as we have really ramped up our capacity and web site capability. We’ve also spent an extraordinary amount for training employees. Obviously, we don’t want to miss our target earnings estimate, so the more we can capitalize and the less expense we have to show this year, the better off we would be.”

“Are we allowed to select the amounts to capitalize and expense or are there rules for that?” Marisa inquires. “I’ll see what I can find. What else?”

“We also need to make certain we have properly recognized revenue for our auction site,” Kate says. “Since we started the auction site in 2002, this is the first year the revenue from this area is substantial. In general, we recognize two types of fees – listing fees and success fees. Success fees are recognized at the time the transaction is successfully concluded. We don’t have much trouble ascertaining that. Listing fees are another story!”

Marisa sees more uncertainty developing in this closing process. She thinks to herself that this is not at all how accounting seemed in college when there was a correct solution for every problem she had to solve in class.

“Listing fees can be recognized ratably over the estimated period of the auctions,” Kate continues. “For example, we charge \$100 for listing 20 auctions. That would be \$5 per auction. But on the other hand, I think the real earnings process is actually having the seller sign up to list the items. So I think we could recognize a greater amount of the revenue when the initial \$100 is received. We also need to consider the fact that when a customer signs up for auctions after the first 20, the subsequent charge is \$100 for 50 auctions. I need you to look more into that too.”

“Got it. Anything else?” Marisa asks.

“One more thing,” Kate answers. “In 2002, Calypso began materially exchanging advertising with others’ web sites. That means we get to advertise on their web site, and they receive advertising space on ours. No cash has been exchanged between the two parties, only the advertising space. But we still need to recognize revenue and expense for this.”

“But won’t the two net out – the revenue and the expense,” Marisa posits, “so the effect on net income is zero?”

“Correct,” Kate answers. “Since CC has been profitable for a relatively short time, some of our investors want to see large growth in revenue too – so revenue, and not just net income, becomes an important item.”

“Last item – I promise,” says Kate. “While you are researching the accounting treatment, I also need to know the tax treatment of web site development costs and the revenue from the auction

fees. Keep in mind Calypso is an accrual-basis taxpayer. Also remember that we provide the service to our customers on the auction site within six months of receiving their prepayment.”

“Gotcha,” Marisa replies, as she turns to walk out of Kate’s office.

### **RESEARCH RESULTS**

After a few days of research, Marisa presents her results to Kate. Kate could not be more pleased. Marisa’s work is thorough and complete. In addition, the financial results achieve analysts’ expectations and the auditors are about to sign off.

Marisa decides to review the financial statements one last time before the final meeting with the auditors. Upon review, Marisa is shocked to see an error. It seems as though one of her recommendations was misinterpreted, resulting in a material increase in net income. If it were correctly recorded, the company would not meet its financial goals. Marisa approaches Kate immediately.

“What should we do? The auditors have spent a considerable amount of time on this audit, and the public earnings announcement is scheduled for this afternoon!” Marisa exclaims.

“Marisa, the numbers are fine. The auditors have already stated they are materially correct. Maybe you were incorrect in your initial research. Anyway, why rock the boat? The auditors are happy, top management is happy, and it looks like we will be getting a bonus and a vacation. Don’t worry about it; you have done a great job.” Kate shakes Marisa’s hand and leaves the room to join the auditors for the earnings announcement.

### **FORMAL REQUIREMENTS**

Answers to Issues 1-4 are limited to one page each (double-spaced, including references) and should be addressed to Kate Kyle, Controller. Issue 5 is limited to three pages, double-spaced.

In researching Issues 1-3, you should follow generally accepted accounting principles. Start your research with the most authoritative literature. If no answers are found, other authoritative literature from the GAAP hierarchy should be examined. You can start your research by utilizing the FARS database or the FASB web site ([www.fasb.org](http://www.fasb.org)).

#### **Issue #1:**

This year Calypso Communication, Inc. spent \$77,000,000 developing new web sites for its business. These costs are summarized in Exhibit 1. Research relevant sources and present your solution for how CC should record these costs in the financial statements. Justify your position clearly, and properly cite any sources. Assume all amounts are material.

#### **Issue #2:**

Initially, a customer (business or individual) pays \$100 for listing 20 items on the on-line auction site. After the initial listing, repeat customers can pay \$100 for 50 items on the on-line auction site.

Calypso’s auction division received \$200,000,000 in auction fees last year. These fees were collected as shown in Exhibit 2. Research relevant authority and present the proper revenue recognition for CC. Justify your position clearly, and properly cite any sources. Assume all amounts are material.

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**Exhibit 1**  
**Web Site Development Costs**

Addressing legal considerations such as privacy, copyright, trademark, and compliance for auction web site (planning stage)	\$11,900,000
Developing software tools required for the development work of the auction web site (infrastructure development stage)	14,000,000
Creating the initial graphics for auction web site (graphics development stage)	22,300,000
Entering initial content into the auction web site (content development stage)	12,100,000
Updating graphics on auction web site after initial customer feedback (operating stage)	1,400,000
Creating new links and verifying links are working properly for both web sites (operating stage)	8,000,000
Training of employees in support of the web sites (operating stage)	7,300,000

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**Exhibit 2**  
**Revenues from On-line Auctions**

	<u>Revenue</u>
New customers initial order (1,400,000 customers paying \$100 for 20 auctions)	\$140,000,000
Repeat customers (600,000 customers paying \$100 for 50 auctions)	60,000,000

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**Issue #3:**

CC sold \$70,000,000 total advertising on its web site in 2002. Included in the total was \$40,000,000 of bartered transactions in which CC also received advertising on other web sites. The cash sales of advertising space have all been made in the last six months and were all for ads on CC's homepage that is viewed by all users of the web site. Of the \$40,000,000 in barter revenues, \$15,000,000 was for ad space on the homepage, and the remaining barter transactions were for ad space on other pages in the web site.

Research relevant authority and make a recommendation for the proper recognition of the barter transactions. Justify your position clearly, and properly cite any sources. Assume all amounts are material.

**Issue #4:**

What effects do the web site development costs and the revenue recognition of auction fees have on CC's tax liability for 2002? Justify your position clearly, and properly cite any sources.

**Issue #5:**

1. Kate mentions the analysts' earnings targets several times to Marisa. Do you think outside parties should influence the accounting treatment used by companies? Discuss the ramifications of not meeting analysts' targets.
2. If there is authoritative literature on a particular subject, is there always a correct answer, or are there alternatives that fall within the bound of GAAP that require professional judgment? Support your answer with examples in the case.
3. What responsibility does Marisa have as a professional accountant?
4. What is Marisa's ethical issue? In answering this question, consider
  - a. Who are the stakeholders?
  - b. What are Marisa's alternatives?
  - c. What are the pros and cons of each alternative?
  - d. What should Marisa do?
  - e. How does the Sarbanes-Oxley Act passed in July 2002 affect Marissa and the other stakeholders? Does this influence your answer to part (d)? If so, explain how?

**LEARNING OBJECTIVES AND GUIDELINES FOR IMPLEMENTATION**

This case provides students an opportunity to research U.S. GAAP by using recent Emerging Issues Task Force (EITF) pronouncements and an SEC Staff Accounting Bulletin (SAB) to the case of an e-commerce firm. The case takes place in the context of an e-business that has two main lines of business – a business-to-business electronic procurement and an on-line auction site. Prior research in accounting education has shown that cases can be a valuable means of improving students' analytical skills, time organization skills and problem-solving skills (Libby, 1991; Stout, 1996; Cunningham, 1999; Bierstaker et al., 2000). In addition, Stout (1996) shows evidence that cases can create a positive view of the way students view specialization within the accounting field.

**Analysis of Learning Objectives**

The learning objectives of the case are as follows:

1. Students will enhance their research skills by locating applicable rules in financial accounting and tax databases. *This case offers the opportunity for students to find answers to accounting questions by researching appropriate literature. The financial accounting issues are addressed in the pronouncements; however, the issues presented would not usually be covered in a general intermediate accounting text. Students gain experience working with the lower levels of GAAP hierarchy. Similarly, the tax issues are not those typically covered in class. Students have the opportunity to research in an unfamiliar topic area. [Note: Instructors not wishing to emphasize the research component of the case could attach the appendix included in the teaching notes to the students' version of the case.]*
2. Students will gain knowledge about financial accounting and tax rules facing e-commerce businesses. *As students research and prepare their solutions for the case, they will add to their understanding of the problems and solutions encountered by companies conducting e-commerce. While much of the business environment remains the same, this new way of providing goods and services created some accounting and tax issues that policy makers were forced to address.*

3. Students will exercise the opportunity to use professional judgment when applying relevant authority. *Students are often led to think that there is one right answer to every problem. Obviously, this is not true in practice and this case helps bring out the different alternatives that could be undertaken even after considering the official pronouncements. Specifically, issues 2 and 3 could have different, but correct, solutions.*
4. Students will evaluate an ethical dilemma and present a resolution. *This case presents a character, Marisa, with whom students can identify and empathize. Issue 5 presents an ethical dilemma that Marisa faces. Students are taken through the process of evaluating the dilemma and considering alternatives before being asked for a decision. This trains students to identify and analyze ethical situations before simply stating an initial opinion.*
5. Students will utilize critical thinking and writing skills. *The case requires students to present their work in professional form as if addressed to the controller of a company. Students must support their answers with both research and logical arguments.*
6. Students will practice interpersonal and leadership skills (if assigned in groups). *The case can be assigned in groups and discussed in class. Students can practice presenting their answers and evidence before their classmates. Each group member must be prepared to talk about the group decision.*

### **Suggestions for Classroom Use**

For instructors new to using cases, Campbell and Lewis (1991) and Libby (1991) outline considerations that instructors should consider prior to adopting the case method, as well as assistance with choosing cases.

This case ideally can be used in the second part of an Intermediate Accounting course or another upper-level financial accounting course. A tax course is also a possibility, particularly Corporate Taxation, assuming the students have taken upper-level financial accounting courses. The case has been used successfully in an advanced financial accounting course at the undergraduate level. The students performed better on the financial accounting questions than on the tax question. Instructors should consider their students' familiarity with tax research in deciding how to best incorporate the taxation aspects of the case.

The case has also been implemented in an MBA accounting foundations course. Because these students are relatively unfamiliar with financial accounting, the Appendix – Outline of Relevant Research Sources is given with the case. Completing the case allows these graduate students to understand the dynamic nature of accounting and the need for research skills to be current in the field. Case materials also provide a richer environment to teach basic accounting concepts, such as revenue recognition, to graduate students.

Although this case can be a graded written individual assignment, the complex nature of the case lends itself to a written group project, usually of 2 or 3 students. Furthermore, an advantage of assigning the case as a group project allows students to develop or reinforce interpersonal skills.

It is suggested that on the day the assignment is handed in to the professor, it is discussed in class. Poll the groups about their answers and then tally the results on the board for each issue. If the groups disagree about the proper recognition in Issues 1-4, encourage the groups to support their ideas with the appropriate resources. For Issue #5, the professor should elaborate the real pressure on Marisa and encourage students to explore all sides of the ethical dilemma.

**Student Feedback**

After they completed the assignment, the students were asked to complete a questionnaire about the case. The questions and the means of the responses are summarized in the table below.

In addition to the high mean scores on the feedback questionnaires, the distributions also showed that the students responded positively to the experience. There were very few responses (less than three percent) to any question marked “mildly disagree” or “disagree”, and no responses to any question marked “strongly disagree.”

Scale: 1=Strongly disagree; 7=Strongly agree	Undergraduates 25 students completed case <u>13 completed survey</u>	Graduates 17 students completed <u>case and survey</u>
<i>My understanding of revenue recognition has improved as a result of completing the case.</i>	5.7	5.7
<i>I found the case to be interesting.</i>	5.6	6.0
<i>My ability to analyze ethical dilemmas in the workplace has improved as a result of completing the case.</i>	5.3	5.2
<i>The case provided sufficient background information.</i>	6.4	5.0
<i>My ability to research relevant authoritative literature has improved as a result of completing the case.</i>	6.4	6.1
<i>My teamwork and leadership skills have improved as a result of completing the case.</i>	5.9	6.0

The students were also given the opportunity to respond to open-ended questions about the case. The first question asked for ways to improve the case. The responses were useful and constructive, but none required substantial changes to the case materials. The students need to have clear instructions on using FARS or other research resources. Instructors should also give specific direction on the form of the final solution, memorandum or letter.

The second open-ended question asked the students how the case most benefitted their learning. Some sample responses follow:

- Realizing that learning is not finished when you get a degree. One must continue researching and be “up-to-date” on all relevant materials once one enters into the workforce.
- I was able to relate with this case better than some of the examples in my books because of the topic.
- Showing me how FASB standards actually come into play with real life reporting issues.

- See what kind of problems you could encounter once you start work. Your ethical skills could be tested very easily. Also different kinds of research I might have to do to see if a transaction follows GAAP.
- Actually analyzing a more real world example, than just an example out of the textbook that usually holds real world variables constant.
- Working together with a team to complete a task.
- Using a relevant example.
- Forcing me to research applicable standards which I didn't have any prior experience with.
- Increasing my practical accounting knowledge.
- Being able to look for relevant materials/journals/publications online.
- Improving my understanding of revenue recognition.
- Learning how to do research before answering the questions.
- Researching relevant issues.

Based on these responses, the students have recognized and identified the learning objectives of the case. They have increased their knowledge, research skills, awareness of ethical dilemmas, and interpersonal skills.

The informal feedback gained through the classroom experience was also positive. The students interacted well in class and seemed eager to share their work and ideas. The instructors agreed that the case was effective in accomplishing the stated learning objective.

### **TEACHING NOTES**

Teaching notes are available from the editor. Send a request from the "For Contributors" page of the journal website, <http://gpae.bryant.edu>.

### **REFERENCES**

- Bierstaker, J., J. Bedard, and S. Biggs. 2000. Fostering Critical Thinking in Accounting Education: Implications of Analytical Procedure Research. *Advances in Accounting Education: Teaching and Curriculum Innovations* (Vol. 2) 21-36.
- Campbell, J.E. and W.F. Lewis. 1991. Using Cases in Accounting Classes. *Issues in Accounting Education* (Vol. 6, No. 2) 276-283.
- Cunningham, B. M. 1999. Energizing Your Teaching: A View from Deep in the Trenches. *Issues in Accounting Education* (Vol. 14, No. 2) 307-321.
- Libby, P.A. 1991. Barriers to Using Cases in Accounting Education. *Issues in Accounting Education* (Vol. 6, No. 2) 193-213.
- Stout, D. E. 1996. Experimental Evidence and Recommendations Regarding Case-Based Teaching in Undergraduate Cost Accounting. *Journal of Accounting Education* (Vol. 14, No. 3) 293-317.