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Accounting for Giraffes at a For-Profit Zoo - A Case Study

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Abstract

This case is based on the accounting at a for-profit zoo. It provides students with an opportunity to explore and apply the Accounting Standards Codification (ASC) using a real-life example. This case challenges the students to use critical thinking skills to identify the relevant standards, as there is no direct reference in the ASC for accounting at a for-profit zoo. An assessment of the students indicates that the case provides a useful learning experience in interpreting and applying the authoritative Generally Accepted Accounting Principles (GAAP) in a real-life situation. Additionally, the assessment results indicate that the case helps students to enhance their critical thinking, teamwork and problem-solving skills. This case could be used in any intermediate or advanced financial accounting class in which students are expected to use the ASC and learn the application of GAAP.

Keywords: Accounting Standards Codification, Zoology, Case Study

1. Introduction

This case provides students with an opportunity to explore US Generally Accepted Accounting Principles (GAAP) using the Accounting Standards Codification (ASC) in a straightforward, real-life example, with a complex accounting scenario. Students are required to explore accounting for the purchase, birth, death, and selling/ exchange of giraffes at a for-profit zoo.

In order to complete this case, students have to use critical thinking skills in order to learn how to identify and apply relevant sections of the ASC to the case, and evaluate the appropriateness of any additional assumptions used. Critical thinking is required in this case as students will find it difficult to "Google" the correct answers, as most zoos are run as not-for-profit institutions. These entities typically record animals on the balance sheet at a nominal amount, or even not at all. For example, San Diego Zoo states in their December 31, 2013 financial statements, "In accordance with customary practice among zoological organizations, animal and horticultural collections are recorded at the nominal amount of one dollar, as there is no objective basis for establishing value." Another source students may use when researching accounting issues outside of the ASC are the national CPA firms' websites. These firms provide their clients (and everyone else who visits their website) with a detailed analysis of many difficult accounting issues. Students can have a high level of confidence in the analysis conducted by the firms, and can either use it as a starting point for their research into the ASC, or as a check point after completing the case. With these sources available to students, it is often difficult to ensure they are learning how to properly use the codification.

It is important for students to be exposed to, and learn how to use, the ASC before graduation, as the CPA exam now includes simulation-based questions that require candidates to research a topic and provide analysis using the ASC. Students will not be allowed to access resources outside of the ASC when sitting the CPA exam. In addition to the CPA exam, employers expect graduates to be able to perform research and analysis using the ASC.

This case can be assigned as a group project to enhance teamwork skills. This case is designed to be one of the students' first experiences with using the ASC, and working in a group will allow them to bounce ideas off one another and work towards the correct answer.

2. The Case Facts

You are an accountant at Zoo World, a **for-profit** recreational facility in Orlando, Florida. Zoo World specializes in creating a fun family atmosphere in which children and adults can observe, learn about, and interact with hundreds of different species of animals. In addition to entrance fees, Zoo World collects revenue from gift shops, hotel rooms, food stands, and amusement rides.

After years of profitable operations, Zoo World has plans to expand its operations and create a Wild Africa exhibit. The focal point of this exhibit will be allowing customers to feed lettuce to giraffes from an elevated platform. In particular, the CFO wants you to address numerous accounting issues that have come up during expansion of operations.

Zoo World purchased five male and five female giraffes at a cost of $25,000 each, in addition,

Zoo World paid $10,000 in veterinary costs and $20,000 for insurance and transportation to get the giraffes to their new exhibit. The giraffes were all approximately five years old at the time of purchase and have an expected total lifespan of 25 years. Zoo World also spent $1,000,000 to create the exhibit, which is expected to last 30 years and have no salvage value.

The cost to feed each giraffe averages approximately $3,000 per year. In addition to the feeding costs, the zoo incurs routine veterinary expenses during the course of the year. Due to the popularity of the Wild Africa exhibit, Zoo World decided to breed one of the giraffes during the year. The costs related to breeding the animal were approximately $10,000, and included costs related to bringing in a giraffe expert for the birth. The baby giraffe is expected to join the tower (herd) after two months; up to this point it will be kept in an enclosed barn with access to the exhibit. In addition, the enclosed barn has been set up with a video camera, so that zoo visitors and the public can watch the baby giraffe interact with the mother and grow (baby giraffes grow approximately 1.5 inches per day for the first week).Zoo traffic increased significantly during the two weeks after the birth of the baby giraffe, as visitors enjoyed catching glimpses of the giraffe via the camera and in the exhibit.

Even with a proper diet and veterinary care, one of the giraffes died unexpectedly at the end of the year. Zoo World paid $1,000 for the adult giraffe to be disposed of. In addition, Zoo World sold one of its giraffes to another local zoo, who intends to expand the size of their tower. The other zoo paid $30,000 to acquire the animal, and also paid for an expert veterinary check-up ($3,000) and shipping costs ($2,000).

Zoo World exchanged a giraffe at the end of the first year for an Egyptian donkey with a fair value of $15,000 and $20,000 in cash. The transaction was conducted so that Zoo World could expand their world-renowned collection of donkeys.

While completing this project, any additional assumptions made have to be included in your explanation of the journal entry.

3. The Requirements

For each of the questions listed below, please provide the journal entry (if any), the relevant section of the ASC, and a brief description of why the journal entry should be recorded.

Q1. The original purchase of the 10 giraffes.

Q2. The cost to create the exhibit.

Q3. Any annual journal entries that would have to be made in regards to the giraffes or the exhibit.

Q4. Journal entries for the birth of the baby giraffe.

Q5. Journal entries for the death of the giraffe.

Q6 .Journal entries for the sale of the giraffes.

Q7. Journal entries for the acquisition of the Egyptian donkey.

4. Teaching Notes

4.1 Educational Objectives

1. Understand how the ASC is organized.

2. Be able to identify appropriate sections of the ASC.

3. Be able to interpret and apply US GAAP.

4. Enhance teamwork skills.

5. Enhance critical thinking and problem solving skills.

4.2 Evidence of Efficacy

This case was used during three semesters of an undergraduate advanced accounting course. During the first semester the case was used, students provided anonymous, qualitative feedback on the length, quality, and time required to complete the study, and any suggestions for its improvement. Minor revisions to the case were made based on student suggestions. Initial responses were very positive, as the case forced the students to explore the codification and see where GAAP comes from. During the next two semesters, the students provided anonymous feedback on six questions. The first two questions displayed overall opinions of the case. Questions three through six were directed towards the learning objectives. The mean and standard deviation for each of the questions is listed below in Table 1.The questions were scored using a five-point Likert-type scale with 1 being "Strongly Disagree," 3 being "Neither Agree nor Disagree," and 5 being "Strongly Agree."We ran a one sample t-test against a hypothesized mean of 3, and all questions were significant at the .001 level.

-----INSERT TABLE 1 ABOUT HERE-----

4.2 Implementation Guidance

This case uses the natural life-cycle found at a zoo to instruct students on the proper use of the accounting standards codification. Most students have been to a zoo, but few have thought about the accounting for the animals and exhibits. Knowing that it is necessary to credit cash for the purchase of the giraffes, most students should be able to quickly theorize that the purchase should be capitalized rather than expensed. However, the theory becomes more complicated when two of the assets mate and create a new baby asset. Would a journal entry have to be recorded for the birth of the baby giraffe? Would the baby be recorded at the same value as the adults? As the baby giraffe is likely to draw larger crowds to the zoo, should it be recorded at a higher value than the adult giraffes? Would the zoo have to record a gain on the birth of the giraffe? What would happen if a giraffe were to die? These questions are all easily understood, and it is easy to guess what the answer is, but they require students to completely analyze the situation and provide the proper citations.

The case may be used in an undergraduate or graduate financial accounting course. It is expected to take less than five hours to complete. The case could also be used in an

accounting theory class. Along with the journal entries, students are expected to analyze and properly cite the ASC.

As with all instructional materials, it is important for students to be able to think about the whole picture when working through the solutions to this case. For instance, students might dive into the ASC and, while looking at the list of assets, see inventory and think the giraffes could be listed as inventory. Students then have to take a step back and think about what is really happening and what the intention for the assets is.

Students are not expected to have any background in accounting for for-profit zoos, or any type of agriculture assets. However, students are expected to know that most zoos will keep their animals in an exhibit for many years, and provide the necessary care to keep the animals healthy. Students are not expected to have any experience of using the accounting standards codification.

5. Recommended Solution

The FASB has no direct authoritative guidance for these accounting transactions. According to ASC 105-10-05-2, "if the guidance for a transaction or event is not specified within a source of authoritative GAAP for that entity, an entity shall first consider accounting principles for similar transactions or events within a source of authoritative GAAP for that entity and then consider non-authoritative guidance from other sources." The first step for students is to examine similar transactions within GAAP. In order to do so, students should determine the nature of the asset; the giraffes are living, entail daily expenses to feed, have an estimated useful life, and may lead to a disposal cost after their useful life is over. Within the ASC, FASB has detailed the accounting for agriculture assets, including vineyards, farms, and livestock. Within the agriculture portion of the ASC, they detail the accounting for both short-lived assets (such as poultry), which will be classified as inventory, and long-lived assets, which follow similar accounting practices to those of equipment. As the giraffes have an expected lifespan of 25 years, they would be classified as long-lived.ASC 905-360-25-4 states the long-lived assets include breeding animals, all livestock, and production animals. FASB later defines production animals as any that "provide a service or primary product other than their progeny."The giraffes at Zoo World would provide a service, and may provide more offspring in the future. The detailed accounting for each of the transactions within the agriculture section of FASB will be discussed below in the individual answers to the questions.

After examining similar transactions within GAAP, ASC 105-10-05-03 provides other examples of non-authoritative accounting guidance. The first source of non-authoritative guidance is practices that are widely recognized and prevalent, either generally or in the industry. Similar to the accounting at Zoo World, SeaWorld Entertainment Inc. (SeaWorld) would also have to account for animals that provide a service to the organization. SeaWorld has classified its animals as long-term assets, and capitalizes all costs associated with each animal until it reaches its productive function. For SeaWorld, that would be when the animal is either used in its shows or put on display. Once put into service, SeaWorld depreciates its animals over their estimated useful life (1–50 years).As of December 31, 2013, SeaWorld had

capitalized approximately $157 million worth of animals on its balance sheet.

Q1. The original purchase of the 10 giraffes.

ASC 905-360-30-1 states "all direct and indirect costs of developing animals shall be accumulated until the animals reach maturity and are transferred to a productive function."The case states the original purchase price of the giraffes was $25,000 each, and an additional $10,000 for veterinary costs and $20,000 for insurance and transportation.The total direct costs of $250,000 and indirect costs of $30,000 would have to be capitalized as the giraffes are placed into their exhibit. Once within the exhibit and put on display, the giraffes would be in their productive function.The journal entry recorded would be as follows:

Debit Giraffes		$280,000	
	Credit Cash		$280,000

Note: The cost of each giraffe is $280,000/ 10 = $28,000.

Q2. The cost to create the exhibit.

The case states that Zoo World spent $1,000,000 to create the exhibit in which the giraffes are housed. The cost to create the exhibit is similar to land improvement and development cost with limited life (ASC 905-360-20). As per ASC 905-360-25-3, limited-life land development costs should be capitalized during the development period. Similarly, the cost to create the exhibit should be capitalized and depreciated over the useful life of the exhibit of 30 years. Also note that any interest cost incurred during the development period should be capitalized, similar to capitalization of interest during construction (ASC 835-20).The journal entry recorded would be:

Debit Exhibit		1,000,000	
	Credit Cash		1,000,000

Q3. Any annual journal entries that would have to be made in regards to the giraffe or the exhibit.

ASC 905-360-35-1 states "fixed assets recognized under paragraph 905-360-25-4 shall be depreciated over their useful lives."The case states the estimated lifespan of a giraffe in captivity is approximately 25 years, and the giraffes when acquired were five years old; thus, the remaining useful life of the giraffes would be 20 years. The case does not state when the giraffes were purchased, so assuming a full year of depreciation our journal entry for the giraffes would be:

Debit Depreciation Expense – Giraffes	14,000	
Credit Accumulated Depreciation – Giraffes		14,000

Note: An assumption used is that there is no salvage value related to the giraffes. An interesting discussion piece related to salvage value could be the February 2014 decision by the Copenhagen Zoo to put down an otherwise healthy two-year-old giraffe and feed the remains to other animals at the zoo.

Similarly, as per ASC 905-360-35-7, costs capitalized during development period for limited-life land developments shall be depreciated over the estimated useful life. Therefore, the cost of the exhibit should be depreciated over 30 years of useful life. The journal entries related for depreciation of the exhibit would be:

Debit Depreciation Expense – Exhibit	33,333	
Credit Accumulated Depreciation – Exhibit		33,333

Q4. Journal entries from the birth of the baby giraffe.

Similar to the acquisition of the giraffes, ASC 905-360-30-1 states "all direct and indirect costs of developing animals shall be accumulated until the animals reach maturity and are transferred to a productive function." In order to determine the journal entry for this transaction, some assumptions will have to be made. First, we have no direct costs associated with the birth of the giraffe; the indirect costs are the veterinary fees of $10,000.These and all other costs would have to be capitalized until the giraffe reaches maturity and enters a productive function. The productive function for the zoo would be when the public is able to interact with or observe the baby giraffe. As such, our journal entry would be:

Debit – Baby Giraffe	10,000	
Credit Cash		10,000

Note: The cash related to the journal entry would be the fees paid for veterinary expenses.

Q5. Journal entries from the death of the giraffe.

The case states that the cost to dispose of the giraffe was $1,000. Assuming the giraffe died after 1 year of depreciation had been recorded, our journal entry would be:

Debit Accumulated Depreciation – Giraffe	1,400	
Debit Loss on Giraffe Death	27,600	
Credit Giraffe		28,000
Credit Cash		1,000

Q6. Any journal entries from the sale of giraffes.

ASC 905-360-30-2 states "Agricultural producers shall report animals available and held for sale either: a. At the lower of cost or market or b. In accordance with established industry practice at sales price, less estimated costs of disposal, if all of the following conditions exist: (1) There are reliable, readily determinable, and realizable market prices for the animals. (2) The costs of disposal are relatively insignificant and predictable. (3) The animals are available for immediate delivery." As there is a relatively small market for giraffes, it would be advisable to use the lower of cost or market.The case states that the giraffe was sold for $30,000; as such, our journal entry should be:

Debit Cash	30,000	
Debit Accumulated Depreciation – Giraffe	1,400	
Credit Giraffe		28,000
Gain on sale of Giraffe		3,400

Note: This journal entry makes the assumption that the giraffe was kept for one year before Zoo World sold it.

Q7. Journal entry for acquisition of the Egyptian donkey.

In order answer this question, we assume that the exchange of the giraffe for the Egyptian donkey has commercial substance. Therefore, the Egyptian donkey should be recognized at the fair value in the exchange, and any gain or loss on disposal of the giraffe in the exchange should also be recognized (ASC 845-10-30-1). Therefore, the journal entry should be:

Debit – Egyptian donkey	15,000	
Debit Cash	20,000	
Debit Accumulated Depreciation – Giraffe	1,400	
Credit giraffe		28,000
Gain on disposal of giraffe		8,400

6. Conclusion

This case challenges students to use and apply US GAAP to account for a for-profit zoo. In particular, students are required to account for the purchase, birth, depreciation, death and exchange of giraffes. US GAAP does not contain a direct reference to account for a for-profit zoo. Similar publically traded examples would include Disney's Animal Kingdom and SeaWorld.

Students who have completed the case to date found it to be interesting, and a positive learning experience. It helped develop their ability to identify, interpret and apply the relevant sections of GAAP, and enhanced their critical thinking and teamwork skills. We conclude that this case can be a beneficial addition to intermediate- or advanced-level financial accounting classes at the undergraduate or graduate level. This case can help prepare students for the CPA exam simulations, in which they are tested on their GAAP research skills, and prepare them for their professional careers in financial accounting.

References

SeaWorld Entertainment Inc. (2013). *Form 10-K 2013*. Retrieved from SEC EDGAR website http://www.sec.gov/edgar.shtml

Accounting Standards Codification (ASC) accessed through AAAHQ.org academic access website.

Table 1 – Student Perceptions

Question	Mean (Std. Dev.)
1. Overall usefulness of the case.	4.43*** (0.85)
2.I would recommend that this case be used as part of this course in the future.	4.63*** (0.66)
3. The case analysis exercise was beneficial to enhancing teamwork skills.	3.98*** (1.06)
4. The case improved my abilityto identify, interpret, and apply the US authoritative accounting literature using FASB codification and other relevant sources.	4.66*** (0.82)
5. The case enhanced my ability to search the literature to identify prevalent accounting practice on a given issue.	4.55*** (0.86)
6. The case assignment requires critical thinking and problem-solving skills.	4.64*** (0.70)

***, **, and * indicate significance at the 1%, 5% and 10% level, respectively.