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Financial Statement Analysis Project: "The Big Simulation"

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Financial Statement Analysis Project: "The Big Simulation"

Description

This project uses real-world financial statements (for Best Buy Co. Inc. and Nvidia Corporation) and creates a role-playing game where students can choose to be one of 4 capital market participants: an innovator that designs a brand-new accounting system, a company that prepares its best version of financial statements, an investor that chooses its ideal portfolio stocks, and a forensic accountant that looks for evidence of earnings management. The project helps student learn to conduct financial statement analysis and appreciate the impact of these statements on company financial ratios and capital market performance.

Keywords

financial reporting, forensic accounting, annual reports, financial statements, investment analysis

Disciplines

Accounting | Finance and Financial Management | Higher Education | Portfolio and Security Analysis

Comments

Luna Goldblatt acknowledges the support by the Research and Professional Development Grant from the Gettysburg College Provost's Office.

The primary download (labeled "Download Full Text" above) contains the project description document. The remainder of the project files are available as a .zip folder, available above, or in the sidebar.

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MGT 155 Accounting for Management Decisions

Course Project: “The Big Simulation”¹

This project is a simulation of real-life financial reporting.

As you may have already learned the hard way, the real world is not black and white. There is more than one way to prepare and to interpret financial statements. Sometimes you have the the advantage of making flexible management decisions, other times you may choose to maximize your benefit while working hard to stay within the legal boundaries. In all cases, you must rely on your own judgment to determine the best strategy based on the multitude of information available.

Roles Options:

There are 4 unique options to explore the world of financial reporting:

- I. The **disruptor** will dedicate their time to design a new accounting system,
- II. The **company** will craft and explain their financial statements,
- III. The **investors** will carefully choose how to invest their capital,
- IV. The **investigators** will do whatever they can to take down fraudsters.

Choose the role you prefer and complete the tasks. You may work individually (Role III or IV), or as a team (any role listed). Teams should consist of 4 or more people. You can find the materials in your email or AMElearning platform. Note that you may not need all the exhibits depending on the role you choose.

Deliverables:

Oral presentation: 5-10 min each team/individual. Length of slides: no limit. Keep in mind you will likely not be able to go faster than 1 slide per minute without losing clarity or focus of your presentation.

Written report: 2-5 pages. There is no penalty for reports that are shorter or longer than this range as long as you clearly explain your arguments.

Presentation Date & Report Due Date: add date (you may send your slides or report to the instructor by Friday Nov 12th for feedback on improvement, *but it is not required*).

Grading:

- Quality of oral presentation and write report (100 points)
- Completion of the required tasks (100 points)

Total maximum grade: 200 points

(All group members receive the same points unless any individual member’s lack of effort is noted.)

¹ This project is the culmination of a co-learning experience between MGT155 instructor Luna Y. Goldblatt, Ph.D., and MGT155 participants Joao Q. Chavez, Andrew M. Landman, Salmin B. Mwinjuma, and Braden C. Vitelli. All errors are the authors’ own. Please reach out to Luna Goldblatt at lgoldbla@gettysburg.edu with questions. Luna Goldblatt acknowledges the support by the Research and Professional Development Grant from the Gettysburg College Provost’s Office.

Choose your character and team carefully, and embark on your journey of choice.

Be careful. Here you go.

I. A New World: The disruptor

Role overview and required tasks:

You might find the current accounting system we use as outdated or confusing (journal entries, adjusting entries, general ledger, and financial statements). This is your opportunity to research, craft and propose a new accounting system that is more user-friendly and useful in the modern day. Your new system for recording and reporting business activities will provide the following information:

- a) The value (balance) of assets, liabilities and equity a company has at any point in time.
- b) The increase and decrease of assets, liabilities and equity that each transaction effects on these accounts.
- c) The unobservable changes in values (depreciation, depletion, etc.) and in accrued revenues and expenses (unearned revenue earned, expenses incurred, etc.).
- d) The total balance and changes in each specific account (inventory, expenses, etc.) within assets, liabilities and equity categories.
- e) A comprehensive presentation of a company's business operations so that investors and creditors can make informed decisions.

Grading will be based on:

The ability to answer reasonable questions with your system design; thoughtfulness and comprehensiveness of your system in meeting the above requirements; understandability compared to current accounting system; susceptibility to possible fraud and manipulations; and quality of delivery/presentation in persuading the audience.

Note:

You will not need to use any of the exhibits. Be prepared to answer class/instructor questions on how your system reflects certain aspects of the business that are currently reflected in ledgers and financial statements.

II. Best foot forward: The company

Role overview and required tasks:

As the management of a major corporation, you feel the urge to expand your operations beyond any existing competitors and also replenish your cash reserves.

You think you can do it by issuing stocks or bonds. But first, you need to make sure your financial statements look good, especially the annual report.

You are given the financial statements (balance sheet, income statement, and related footnotes as highlighted in **Exhibits 1 or 2**) prepared by your subordinates. Make adjustments/revisions that you deem suitable and legal to satisfy the following goals:

- a) There may be a trade-off to make. The goal is to impress investors with your total assets level and reduce your tax burden at the same time. You will achieve this goal by **maximizing your assets** and **minimize your net income**. There may be a trade-off to make.
- b) The adjustments you will make, need to be legal and conforming to Generally Accepted Accounting Principles (GAAP). In your presentation/report, be sure to explain when explicitly expressing your changes. For example, when you change from FIFO to LIFO, disclose that in your footnotes. Justify all the adjustments made in the financial statements.
- c) Within the adjustments, explain how they affected your assets (current/non-current), liabilities, equities, revenues and/or expenses and make sure they are consistent to impress the investors. Make sure this explanation is included in your written report and is presented to the class.
- d) Examples of adjustments that can be made are listed on **Exhibit 3**. The adjustments that you are going to make **are not limited** to the ones found on **Exhibit 3**. Do the adjustments you feel that you need to do.
- e) Having blank spaces from many adjustments may cause suspicion from the investors, who may walk away from you. So, make sure to account for such adjustments.
- f) Once you are done with the above tasks, as a group, imagine that you are the CEO of the company. Make a 2 minute mock pitch to the audience (e.g, institutional investors) for your bond or equity issuance.

Grading will be based on:

The accuracy of your adjustments (e.g., correctly identifying how the change of methods impacts assets and/or liabilities); completeness of your financial statements (add footnotes where necessary); the extent to which you fulfill your goal of maximize assets and minimize your net income; ability to answer reasonable questions (those related to topics covered in classes); ability to stay within the legal boundaries; quality of your pitch (confidence & articulation).

Note:

Be prepared to answer a classmate or instructor's skepticism and justify how you arrive at your numbers. For example, how did you manage to increase your assets in a drastic manner while keeping your net income low?

III. Too smart for index funds: The investor

Role overview and required tasks:

As an investor, you believe that you have the capacity to craft the optimal portfolio comprised of some of the best stocks you have hand-picked, without trading in index funds.

Evaluate the provided two businesses (**Exhibits 1 and 2**) based solely on their annual reports and some general online industry research. Allocate your investment into one or both of them, but note which one you prefer. In your analysis, make sure to:

- a) Calculate all financial ratios we have learned so far as presented in **Exhibit 5**. Include tables of all financial ratios displayed in Exhibit 5 for both companies in your written report and presentation. After making all calculations, choose one of them and demonstrate how you calculate it from the financial statements. Learn how to make a meaningful interpretation based on the industry average.
- b) Describe your impression of the major items on the balance sheets and income statements. Do these numbers seem reliable to you when they involve estimation? Does the level of reliability you perceive impact your decision to invest?
- c) Make brief online industry research (using Google or other sources) to see if you want to invest in the kind of operations run by these companies. Did any information indicate good long-term potential? Include tables of each financial ratio displayed in Exhibit 5 for both companies in your written report and presentation.
- d) Explain where you think your preferred company can do better within the scope of their business.
- e) Use any other evaluation techniques you believe to be effective and helpful in gaining insight as an investor.

Grading will be based on:

The completeness in answering all the above questions; accuracy in financial ratio calculations; ability to interpret the financial ratios; ability to justify or explain question b); informativeness (not length) of your industry research; and ability to make meaningful suggestions regarding question d).

Note:

Be prepared to answer class or instructor questions on how you arrive at your conclusions. Present all your calculations results in the written report. For the presentation choose one of the ratios and demonstrate how you calculate it. The most relevant information in Exhibits 1 and 2 has been highlighted for you, however, you may use the other included information if you find it helpful.

IV. Keeping them in line: The investigator

Role overview and required tasks:

You are a forensic accountant with the U.S Securities and Exchange Commission (SEC). You believe that the integrity of the financial reporting is the backbone of a fair and robust financial market. This is not only your job, but also your mission. You look into suspicious financial statements with a magnifying glass, and will search for evidence of companies misusing or misapplying GAAP principles and/or committed fraud.

Read the excerpt of 2021 financial statements and its footnotes (**Exhibit 4**). Compare them with previous years' statements. Notice any material change (threshold: 1% of net sales revenue or 10% of net income)? Investigate and conclude:

- a) Are there any changes that do not conform with GAAP or other financial reporting guidelines you know?
- b) Are there any misleading changes or explanations?
- c) Are any required footnotes missing from the financial statements (to the extent of topics covered in class)?
- d) Are there any unexplained changes that might indicate fraud?
- e) What other information do you think should be furnished in the financial statements? f) What other opinions/impressions do you have regarding the 2021 financial statements?

Grading will be based on:

The ability to identify several of the non-conforming changes or adjustments; ability to articulate why certain information is misleading; ability to identify some missed footnotes; ability to suggest some improvement in financial reporting; ability to form your own opinion or impression of the provided statements.

Note:

Only the highlighted portion of **Exhibit 4** contains adjustments. Be prepared to answer classmate or the instructor's questions on why you believe some information furnished is misleading or nonconforming, and how the evidence supports your other arguments. Use **Exhibit 6** news clip as a reference when needed.