Research Report:
Industry Analysis and Competitive Strategy

Introduction

Designing viable strategies for a firm requires a thorough understanding of the firm's industry, its competition, and the social, economic, and political environments in which the firm operates. Additionally, the executives of the firm need always to address four questions: (1) What are the boundaries of the industry? (2) What is the structure of the industry? (3) What firms are competitors? (4) What are the major determinants of competition? The answers to these questions provide a basis for thinking about appropriate strategies that are open to the firm.

As managers, you will be expected to provide essential elements of the key components of the questions asked above. Specifically, in the industry analysis in which you are about to engage in, you will make every effort to keep these questions in mind as you prepare the industry analysis and competitive strategy for the portfolio of firms you have selected for your project. The basic considerations and an outline follow.

Finally, the Industry Analysis demonstrates comprehension of the *key competencies* presented in the course. An outstanding paper will evidence usage of the major core sections of the text's books, demonstration of the tools, and presentation of analysis in an extremely well written form which documents sources and references.

Format of the Industry Analysis

The industry analysis is a report and should be presented in a form that allows comparison across individual companies. Thus, a format is provided which will facilitate comparison. **The format is provided below**:

> Cover Page
> Table of Contents
> Table of Figures

1. Introduction
2. Recent History of the Portfolio of Companies
3. Components of the Strategic Management Model
4. Contending Forces and/or Contestable Markets
5. Financial Analysis
6. Forecasts
7. Comparative Analysis on Profitability and Outlook
8. Summary and Conclusions
> References

The format is the outline for the paper with respect to the sections or chapters. You can copy the outline and use it for the development of the company analysis. Page 3 below will provide a discussion of what the include in the paper and the sources to be used for citations and references.

The paper is graded on adhering to the guidelines presented here. Thus, you will not need any additions sources for the paper other than these, which is presented below:

Breakdown of Sections (this section correlates to the outline and describes the inputs for each section). In other words, this section presents the sections and sources where information can be found to complete the section.

The paper is to be developed in a modified APA format, referred as the International APA format, which is acknowledged by countries and international organizations world-wide. The remainder of the document is presented in this format:

- **Cover page** includes title of paper (An Industry Analysis of Company 1 and Company2), your name, department, instructor's name, College and date), all without any design or emblems (this is to save money if having to print out*).*
- **Section headers** are numbered and justified left; single spaced and double-spaced between paragraphs and sub-sections. Inside citations include name, year, and page number.
- **URLs** are placed in footnotes.
- **All tables and figures** are number according to the section (e.g., Table 3.1 refers to a Table in Chapter 3 and is the first table in that section.
- **Pagination;** and most important – a plain cover page with titled of paper (An Industry Analysis of Company 1 and Company2), your name, department, instructor's name, College and date), all without any design or emblems (this is to save money if having to print out*).*

1. *Introduction*

This section is written last.

2. *Recent History of the Portfolio of Companies*

Provide a brief history of each company. The source of this data is **Mergent Online**, its gate page, and the reports section.

3. *Components of the Strategic Management Model*

The company mission is the unique purpose that sets it apart from other companies of its type and identifies the scope of its operations. You should have a good idea of each company's mission and the specific model used to obtain short-, medium-, and long-term objectives. Understanding the company's management model is critical to understanding the strategy of the company and the roadmap it will pursue to achieve its goal. Thus, you are to develop the essentials of the companies' mission and strategic models. Try to determine its grand strategy, annual objectives, functional strategies, and indicators for control and evaluation. Compare the strategic management models of each firm. The company's mission can be obtained from the company's website. If not located on the website, type in the name of the company and mission statement and this should direct you to the mission statement. Company strategies are contained in the company's Annual Reports, which can be obtained from the company's home

(gate) page in Mergent Online under the Report tab. Any information obtained must be cited and a page number provided.

4. *Contending Forces and Contestable Markets*

Contending forces consist of (1) threat of entry, economies of scale, product differentiation, capital requirements, cost advantages and disadvantages, access to distribution channels, and government policies, (2) vertical and horizontal linkages of suppliers, (3) understanding consumers and buyers along with substitute and complement products. Linking these concepts in your discussion allows you to understand the contestability of the market structures.

Assessing competitive positions improves a firm's chances of designing strategies that optimize its environmental opportunities. The following criteria are often included: market share, breadth of product line, effectiveness of sales distribution, proprietary technologies and patent rights, price competitiveness, advertising and promotion effectiveness, location and age of facility, capacity potential/limitations and productivity, and the quality of the workforce. The source for this Assignment is the development and analysis of the Concentration Ratio (CR) and Herfindahl-Hirschman Indices (HHIs)along with the analysis developed as an Assignment. You are to develop a table of industry revenues for both companies to derive the CRs and HHIs. Instructions for developing these table is in the Assignment Box for the relevant Week. In addition, you are to interpret the results of the analysis, which is given in the chapter designations in the title for this section.

5. *Financial Analysis (Analysis of the Financial Ratios)*

One of the most important tools for assessing the strength of a company within and across industries is financial analysis. Managers, investors, and creditors all employ some form of financial analysis in evaluating a company's performance.

From the series provided in the **Ratio Database**, you are to select seven (7) ratios for each company; however, the ratios must be the same for each company selected in order to develop a comparative analysis. Data for the ratios is provide in the Company Analysis Tab as Company Rations. The Excel file contains names of Public Companies and their ratios, which is used to select two companies and their associated ratios. The variables (or series) in each company's Excel sheet contains the same series, in quarterly data. You want to note the start and end dates of each series.

Choosing a Company:

 Table 6.1 below provides a list of all ratio series in each company's file along with their name. Definitions for the series can be found in Investopedia. You want to note that some companies have missing data or limited for some series; thus, you want to examine each company's file before making a selection.

Table 6.1
Data Dictionary and Deere Company Example

1	Profitability Ratios	2	Liquidity Ratios
1.1	Return on Asset **ROA** %	2.1	Quick Ratio **QR**
1.2	Return on Equity **ROE**%	2.2	Current Ratio **CR**
1.3	Return on Investment %(**ROI)**	2.3	Net Current Assets % **TANCATA**
1.4	**EBITDA** Margin %		
1.5	Calculated Tax Rate % **CTR**		
1.6	Revenue per Employee **RPE**		

3	Debt Management	4	Asset Management
3.1	LT Debt to Equity **LTDE**	4.1	Total Asset Turnover **TAT**
3.2	Total Debt to Equity DE	4.2	Receivables Turnover **RT**
3.3	Interest Coverage **IC**	4.3	Inventory Turnover **IT**
		4.4	Accounts Payable Turnover **APT**
		4.5	Accrued Expenses Turnover **AET**
		4.6	Property Plant & Equip Turnover **PPET**
		4.7	Cash & Equivalents Turnover **CET**

5	Per Share
5.1	Cash Flow per Share **CFPS**
5.2	Book Value per Share **BVPS**

The data is prepared in an Excel file, which requires Importing into Stata. An initial assignment is designed to review the Download process of an Excel file into Stata. A short version of a company's data file is provided below for John Deer. Notice the name, NAICS Code, which describes the firm's industry. Also, note the format of quarterly data provided, with the mnemonic names already developed. The data file contains company data **by sheet** (bottom of Excel file); thus, copy the yellow high-lighted data and placing in a **NEW Excel file** with QTR placed in the A1 cell. Using the **Import** instructions in Stata, import the Excel data into Stata and send directly to me for review. Title the Stata File: **Analysis** and the email subject box: Workfile and your last name (e.g., **Workfile_Andrews**). Send ASAP. (This routine should take 10 minutes)

Deere & Co. (NYS: DE)
(NAICS 332212)

QTR	ROA_D	ROE_D	ROI_D	EBITDA_D
01/31/1999	1.08	4.86	6.58	8.56
04/30/1999	3.21	15.01	11.15	10.77
07/31/1999	1.42	6.54	7.61	8.69
10/31/1999	-0.64	-2.83	2.3	-2.4
01/31/2000	0.84	3.65	6.45	8.83
04/30/2000	4.32	19.94	14.98	13.54

Deere

The assignment for this section consists of the following:

5.1   Developing a Multivariate Regression Model

Your database has 20 companies with similar financial ratios, some more with missing data. Also, some of the series may contain series within the data set that have missing data, and these are designated as "NAs" OR "-", which means data not available for certain periods. You may ignore these.

You only need to develop a regression model **for one company.**

The regression problem requires you to understand how to develop a regression model and the steps that produce a model of "best fit", model that best fits the data. We covered a number of these topics during the review period. Instructions are as follows:

- Choose **one** (1) variable to represent **the dependent variable**.
- Choose **7 variables** you feel would be good predictors of the dependent variable. The choice of variables determines your regression model, which is reviewed in Chapters 2 and 3 in Min. The model for your regression should be defined in a specification (Heij, p. 120, (3,1) using your selected variables in place of the y and x's. Next, the regression results presented in the model with the estimated regression parameters. Finally, your discussion of the estimated regression with an interpretation of the regression results.[1]
- You will develop a multiple regression model using the ratio data and a univariate forecasting model for one variable of your choice (See Heij, Chapter 7, with instructions and steps for developing the univariate model:
- Again, the **multivariate regression model** should include specification of the model, a discussion of the relation of each independent variable to the dependent variable, and a detailed discussion of the follow diagnostic tests:
  - **msls (p-value) of each coefficient, including the intercept term.**
  - **r- and adjusted r-square.**
  - **F-stat and its msl; and the**
  - **Durbin Watson statistic, in addition to**
  - **testing for multicollinearity, s**
  - **serial or autocorrelation and**
  - **heteroskedasticity** (the last two using tests from residuals in Stata; that is, the Serial Correlation Test for autocorrelation and White's test for heteroskedasticity. Both are one-tailed F- and chi-square tests so you want to review your stats text for interpretation of these distributions. Recall, it is assumed that you know most of the above stats; however, the tests for autocorrelation and heteroskedasticity are introduced in this course.

5.2   Developing and Analyzing Comparable Graphs (Week 5)

There are 5 categories of Financial Ratios (Profitability, Liquidity, etc.) from which to choose 8 ratios, which are the same as selected for your companies. Thus, you

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[1] *This is an important section of the paper and your ability to demonstrate regression and forecasting is a critical element of the overall grade.*

are using the same series for statistical analysis (Descriptive Statistics, Correlation Analysis), Regression Analysis , and Graphics (comparative series, using the same series for both companies placed in one graph, resulting in 8 comparative graphs.

1	Profitability Ratios	2	Liquidity Ratios
1.1	Return on Asset **ROA** %	2.1	Quick Ratio **QR**
1.2	Return on Equity **ROE**%	2.2	Current Ratio **CR**
1.3	Return on Investment %(**ROI)**	2.3	Net Current Assets % **TANCATA**
1.4	**EBITDA** Margin %		
1.5	Calculated Tax Rate % **CTR**		
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3	**Debt Management**	4	**Asset Management**
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		4.6	Property Plant & Equip Turnover **PPET**
		4.7	Cash & Equivalents Turnover **CET**
5	**Per Share**		
5.1	Cash Flow per Share **CFPS**		
5.2	Book Value per Share **BVPS**		

Develop five graphs where two corresponding ratios for each company appear in the same graph. Instructions for graphing are Stata' Users Guide, which was read in Week 1. Also, if you open Stata and Click on Help and Stata Help Topics, you can type in, for example, graphs and get instructions on how to graph two series in the **same graph as a GROUP.** An example of a comparable graph with both companies is:

Figure 5.1
Example of a Two Series Graph
UK Unemployment Rate and Log(Unemployment Insurance '08)
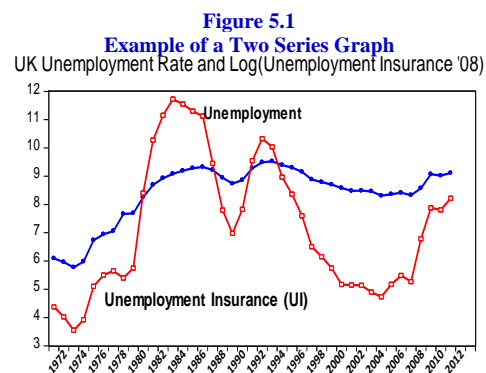
You are to comparatively analyze your graphs with respect to:

1. **Seasonal Adjustment** series that appear show seasonality patterns (see Stata Help/Online Stata Help) and placing Seasonal Adjustment.   Seasonal Adjustment of series is available for **quarterly** and monthly data. Or if you click on a series in your Workfile, you can access seasonal adjustment using

Moving Average, with two choices. If one gives an error message use the other and report in paper which used and why.

2. **Long-Term Trend**: determine each company's long-term trend (upwards, downwards, or flat); see MIN, page 13, Figure 2.1 for an example of an upwards, long-term trend.

3. **Structural Breaks**: describe by time period any major structural changes (or breaks - major departures from the long-term trend). For example, in Figure 5.1 above, a major structural break occurs between 1982 – 1992.

5.3   Univariate Forecasting Models.

This section provides the development of the **Univariate Forecasting Model**

5.3.1   An example of developing the Univariate is provided in Min, Chapter 11 beginning with testing for Unit Roots; however, once this is completed, Stata provides a self-estimation process, which automatically develops the forecast.

5.3.2   Develop the Unit Root Test in Stata: click on dependent variable, View, Unit Root Test.
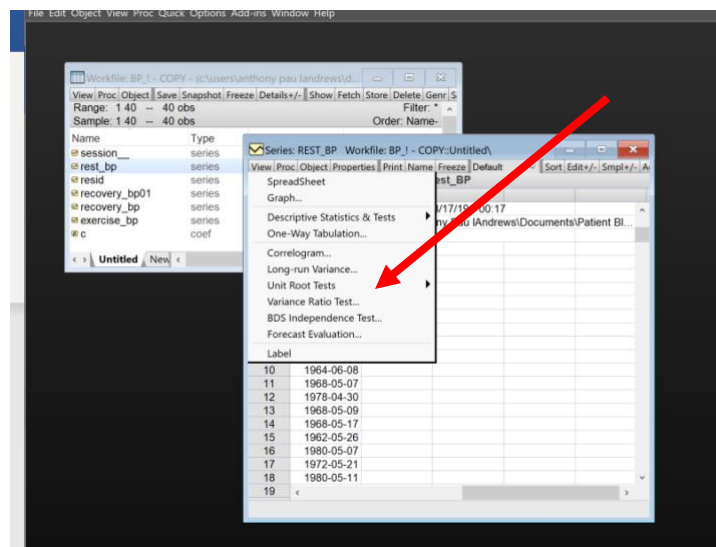
5.3.3   Forecast
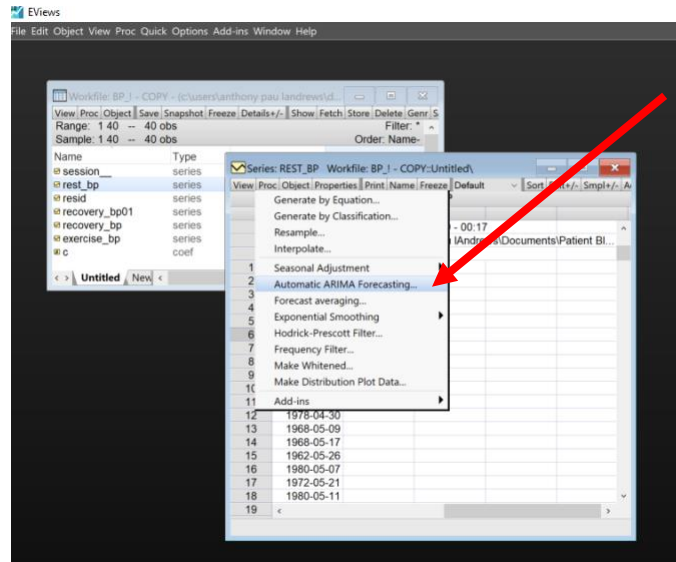
5.4   Summary

6.   **Summary and Conclusions**

This section is the most important section of the paper and should be a minimum of three (3) single spaced pages. This section measures the student's ability to comparatively summarize the critical points derived in Sections 2-6 of the Industry Analysis. Students not meeting the 3-page criteria of relevant information for this section will lose significant points, as this part of the paper represents 40% of the paper's point value. That is, if the student has developed his/her previous 5 sections individually and sufficiently, it is virtually impossible not to be able to provide a qualifying section for this paper.

The best results are achieved for a passing grade on the Industry Analysis by providing only that which is requested. The summary demonstrates that you understand the Learning Objectives of the course. Thus, the summary will demonstrate your success in completing this section.

Of critical importance is that the only two outside sources are approved, and they are the company's website for the Mission Statement and Investopedia for definitions of the financial ratios.   Utilization of other sources will result in point deductions. Any outside sources referenced or identified as being used will result in 5-point deductions. The purpose of using only the approved sources is that this allows everyone to utilize the same resources and provides an indication of covering the course content in the course texts. The approved reference sources are the sources available to each student, which are as follows:

1.   **The Textbooks used in the class**
2.   **Stata**

3. **Mergent Online at GSU Website under Databases:**
   url: http://libguides.govst.edu/content.php?pid=267886&sid=2211092
   3.1 The Gate Page's Data Information
   3.2 Government Filings (8K and 10Q)
   3.3 Competition Tab (List of the Companies Direct Competitors)
   3.4 Reports Tab
   1.1 C
   1.2
2. **Net Advantage at GSU Website:**
   url: http://libguides.govst.edu/content.php?pid=267886&sid=2211095
3. **Troy: Key Business and Industry Ratios (GSU Reference Desk)**
4. **Investopedia**

These sources provide all the information needed to complete the paper; thus, you do not have to spend time researching additional information or material to complete your paper. In fact, **using sources other than those listed above will result in point deductions. All papers are subjected to "Originality Check" software. Identification of Student Dishonesty, with receive a grade of zero (0) for the paper.**

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References

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Be sure to adequately document all supporting and reference materials appropriately. It is expected that footnotes will accompany referenced materials. Your citations will provide evidence of coverage of course topics and applications. All inside (or paragraphs) citations should include page numbers; for example, Wooldridge, p. 49. Citations for a URL should be documented as footnotes; for example: **The Company X has 46,000 employees.[2]**

This allows for the verification of all citations. None verifiable citations and references will result in point deductions.

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Other Major Considerations

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- The paper should be presented as one (1) MS Word document and include all graphs, tables, and regressions output tables.
- All pagers should be paginated sequentially.
- All graphs should be listed as Figure 1, Figure 2, etc., according to section.
- All tables should be listed as Table 1, Table 2, etc., according to section.
- All tables and graphs should appear on the page after reference is made or as close to as possible; that is, tables and graphs should not appear at the end of the document.
- This is not a report that can be done over a weekend. It requires work throughout the course. One test of the report is how you manage time and, at the same time, present a high-quality report.
- **Save all graphs, regressions, and tests in Stata and submit and submit your Stata Workfile in a separate document separately to my GSU Email.**

Best results are obtained by developing the paper on a weekly basis and providing weekly drafts to instructor for review and comment. Five Sections (Section 2-6 will be developed as homework assignments. If you send in your

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[2] See http://gsuproxy.govst.edu:2125/companydetail.php?compnumber=3424&pagetype=synopsis

assignment prior to the due date, I will provide comments, which will allow you to revise increase the value of your grade.

The following page presents CBPA's Writing Rubric, which provides students with additional evaluation for their course writing documents (Company Analysis).