402 - Intro to PA

**Session 1**

Learning Objectives

After this session, the student will be able to:

Define analytics.

Analytics is the extensive use of data, statistical and quantitative analysis, explanatory and predictive models, and fact-based management to drive decisions and actions. (Pg. 7)

Business Intelligence: A set of technologies and processes that use data to understand and analyze business performance. BI entails the collection, management, and reporting of decision-orientated data as well as the analytical techniques and computing approaches that are performed on the data. (Pg. 12)

State the importance of analytics in business competition.

Business competition encompasses the continual pursuit of optimization through effectiveness and efficiency. Analytics utilizes science based approaches to analyze, implement, and strategize the best approaches to managing business.

Assess common attributes of analytically competitive businesses.

1. Analytics supports a strategic, distinctive capability:
   1. They are distinctively good at something and apply analytics.
   2. They find a specific avenue to apply analytics to.
   3. Information must be centrally driven and broadly distributed. (Pg. 29)
2. The approach to and management of analytics permeates the company
3. Senior management is committed to the use of analytics
   1. The most important
4. The company makes strategic bets on analytic-based companies
   1. Analytics is worked into the results they aspire to achieve.

Rank the stages of analytic competition.

Companies that successfully compete on analytics have analytical capabilities that are:

* Hard to duplicate
* Unique thorough
* Adaptable to many situations
* Better than the competition
* Renewable

Cool Quotes:

Finally, the ability to make sense of data through computers and software has finally come of age.

“A single version of the truth” -46

Questions: What is ERP, enterprise resource planning (Pg. 11)

Course Content

**Textbook Reading**

*Competing on Analytics*, Chapters 1–3

*Now You See It,* pages 1–10

Discussion Board

Each session you are required to participate in the session-specific discussion board forum. Your participation in

both posting and responding to other students' comments is graded. For this session’s discussion topic(s), visit

the discussion board in Blackboard. The due date and time for posting to each week’s discussion forum is

Sunday, 11:55 p.m. (Central Time).

In today’s business environment, many factors can provide competitive advantage. Why is analytics more or less valuable than other factors? What is the relationship between analytics and other factors (e.g., logistics, cost, or customer retention)?

According to Davenport and Harris, analytics is defined on page 7 as, “the extensive use of data, statistical and quantitative analysis, explanatory and predictive models, and fact-based management to drive decisions and actions.” All organizations have to make decisions. Analytics provide tools and a methodological approach to gathering pertinent information to better assist the many facets involved in making decisions. The relationship between analytics and other business factors can be expressed through a hierarchical/experimental role.

In the above chart three interactions are happening:

1. Decisions, resources, and time are spent with a desired goal in mind whether it is logistics, cost of “x”, project management, or…
2. Analytics serves as the independent variable that structures and aids the process.
3. Other Factors serve as the dependent variable following the structure and process put forth from the analytical process.

In other words, analytics is the lens in which other factors are seen and processed.

While there appears to be evidence that businesses competing on analytics are also high performing businesses, how do we know if analytics is the cause of this success?

Many companies tout the “Analytics” horn as a reason for success, but in order to verify direct causation an experiment would need to be conducted. The hypothesis for the experiment would read; there is a relationship between analytics and success, such that utilizing analytical techniques leads to more profitability or success (R. Mark Sirkin).

* Independent Variable: Analytics
  + Definition of Analytics: the extensive use of data, statistical and quantitative analysis, explanatory and predictive models, and fact-based management to drive decisions and actions (Harris and Davenport).
* Dependent Variable: Success
  + Definition of Success: Increased profitability as demonstrated by financial gain since implementing analytics.

The unit of analysis would be companies and the measurement would be in dollars. The control

for the experiment would be companies not currently implementing analytic strategies. One would gather financial information for the experiment

Is there any situation (other than regulated industries) when competing on analytics would be inappropriate or potentially unsuccessful? Why?

The field of behavioral economics is the study of situations in which people make choices that do not appear to be economically rational (Hubbard, O’Brien 2010). Within behavioral economics, three irrational behaviors are studied:

Behavioral Economics