DSO-599: Operations Performance Analysis (1.5 units)
Spring 2015

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Course Description
How does one go underneath financial statements to get a better handle on firm valuation?
Specifically:
• Which operational indicators best suggest future financial performance?
• How does one do operational due diligence?
• What are best practices in operational turnarounds?

These questions constitute key issues in what might be called “operations forensics.”
This course helps students confront questions like these in their future careers as:
• private equity investors
• analysts and analyst-facing CEOs and entrepreneurs
• management consultants
• line managers, including those of not-for-profits, such as some hospitals.

Course Learning Goal
You will learn frameworks, analytical tools, industry language, and personalities. Some highlights:
• Take “inside look” at the performance assessment (Virginia Mason Medical Center) and value investing (David Berman)
• Take a broad look—e.g., ABRY feels deceived into investing in F+B. Ethical, legal issues, etc.
• Advance valuation skills based on examining operations (was Amazon on brink of bankruptcy?)
• Sharpen ability to justify investment recommendations, using fast-paced case discussions

Pre-requisites
No formal requirement, but if you are not a second-year MBA, please read chapters 5 (Link between Operations and Finance) and 10 (Lean Operations and the Toyota Production System) in http://cachon-terwiesch.net/2e and financial concepts in http://www.stocklogic.com/samples/IFS.pdf
**Relationship with other Courses**
Most courses in finance and accounting focus on information in financial statements, but we will focus on operational levers. There is a small overlap with the “analysis of operation” section of GSBA 518 Accounting Control Systems. Given that this is an operations course, we will not focus on finance or accounting issues such as valuation, except the connection from operations to these topics.

**Textbook**
Also required is the case booklet from the USC bookstore.

**Assignments and Grading Detail**
The course grade, which will be curved, is based on 10% class contributions, 40% individual case analysis, and 50% group project.

1) 10% on class contributions; I count mainly your examples and elaborations of the lecture material.

2) 40% on analysis of a case; Individual effort expected.  
   Case analysis is due by 9 pm day before class through Turnitin on Blackboard (I want you to get some sleep). Case questions are suggested only as starting points. You are encouraged to submit up to 2 cases, but I take only the best one. Late assignments, for any reason, will be read but will score zero points. This mechanism is designed to accommodate valid reasons that might clash with class requirements (illness, job interviews, events concerning loved ones, etc.). Expect to write around 3 to 6 pages of text (12-point font, 1.5 line spacing, 1 inch margins all round), and 0 to 4 pages of exhibits. Entire submission must be in only one file.

3) 50% on team project.
Each team ideally has 3 to 4 members. Expect to write 20-30 pages double-spaced, excluding exhibits. Topic fairly open; examples:
   a) Undertake due diligence on a doughnut store on Walnut Street
   b) Modify the “Altman Z score” to predict not financial bankruptcy, but technological disruptions
   c) Beer and Nohria wrote an HBS paper distinguishing “E” and “O” turnarounds. Use their criteria to codify turnarounds based on newspaper reports, and run a regression to see which types are more likely to succeed.

Grading criteria:
- Well-motivated question
- Data-driven analysis.
- Principle-driven analysis. Since this is an operations management course, by “principle,” I mean your favorites like linear programming, Little’s Law, the queuing formula, the customer throughput loss formula, and the newsvendor formula, etc.
- Creativity—*e.g.*, dig into trash bins for data (might need permission; don’t do anything illegal).
• 15-minute presentation in class on the last day.

Proposal due mid-quarter, not graded. One page to include: (1) question and its motivation, (2) data to be gathered, (3) analyses to be undertaken. I will provide assistance—e.g., what you could read to refine the project.

To facilitate learning, we will make the group reports available to all students.

**MARSHALL GUIDELINES**

**For Students with Disabilities**
Any student requesting academic accommodations based on disability is required to register with Disability Services and Programs (DSP) each semester. A letter of verification for approved accommodations can be obtained from DSP. Please be sure the letter is delivered to your instructor as early in the semester as possible. DSP is located in STU 301 and is open 8:30 a.m. - 5:00 p.m., Monday through Friday. The phone number for DSP is (213) 740-0776.

**Notice on Academic Integrity**
The use of unauthorized material, communication with fellow students during an examination, attempting to benefit from the work of another student, and similar behavior that defeats the intent of an examination or other class work is unacceptable to the University. It is often difficult to distinguish between a culpable act and inadvertent behavior resulting from the nervous tensions accompanying examinations. When a clear violation has occurred, however, the instructor may disqualify the student's work as unacceptable and assign a failing mark on the paper. There may be additional penalties, including failing the course, in accordance to the university policies, as listed in the SCampus.

**Turnitin Technologies**
USC is committed to the general principles of academic honesty that include and incorporate the concept of respect for the intellectual property of others, the expectation that individual work will be submitted unless otherwise allowed by an instructor, and the obligations both to protect one's own academic work from misuse by others as well as to avoid using another's work as one's own. By taking this course, students are expected to understand and abide by these principles. All submitted work for this course may be subject to an originality review as performed by Turnitin technologies (http://www.turnitin.com) to find textual similarities with other Internet content or previously submitted student work. Students of this course retain the copyright of their own original work, and Turnitin is not permitted to use student-submitted work for any other purpose than (a) performing an originality review of the work, and (b) including that work in the database against which it checks other student-submitted work.

**Lunches with the Professor**
I enjoy getting to know students better. Not mandatory. Sign up for (free!) meals with me. Preference to those who have not met with me before.
Course Schedule

The chapters refer to those in the text, “Operations Forensics.” Please read the case and be prepared for the discussion before coming to the class. This syllabus is an invitation to students to engage in an exciting and interactive study of operations performance analysis. The learning environment will be collaborative and supportive; we will learn from one another both in and out of the classroom. To that end, modifications to this syllabus might be warranted as determined by the instructors as we assess the learning needs of this particular class of students.

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<td>What Financial Statements May or May Not Reveal</td>
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<td>Final Group Presentation</td>
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Course Outline

Module 1: Introduction (chapters 1 - 2)

Session 1 – 1/12/15 (Monday) Introduction to Operations Performance Analysis
Question: What is Operations Forensic?

Session 2 – 1/14/15 (Wednesday) What Financial Statements May or May Not Reveal
Question: How to infer business models and customer types from the financial statements?

Module 2: Operational indicators (chapters 3 - 6)

Session 3 – 1/21/15 (Wednesday) Indicators of Accounting Performance
Question: What are the indicators of current and future performance? What are ROA trees?

Session 4 – 1/26/15 (Monday) Case: David Berman
Question: What is David Berman’s business model? What are the strengths and weaknesses?

Session 5 – 1/28/15 (Wednesday) Indicators of Disruption and Distress
Question: What are the types of innovations? What is the Altman Z score?

Module 3: Operational due diligence (chapters 7 - 11)

Session 6 – 2/2/15 (Monday) Assessing the Customer Base
Question: What should due diligence seek? How to measure customer profitability?

Session 7 – 2/4/15 (Wednesday) Case: Virginia Mason Medical Center
Question: What is Gary trying to achieve at Virginia Mason? How does TPS fit into the strategy?

Session 8 – 2/9/15 (Monday) Assessing the Risks and Options
Question: Why is risk assessment difficult? What is the value of options on operational assets?

Module 4: Operational turnarounds (chapters 12 - 15)

Session 9 – 2/11/15 (Wednesday) Turning Around Purchasing and Production
Question: So we’ve invested. How to turn around the situation?

Session 10 – 2/18/15 (Wednesday) Case: ABRY Partners and F+W Publications
Question: Will you advise ABRY to file the lawsuit? Was ABRY defrauded?

Session 11 – 2/23/15 (Monday) Turning Around Distribution and More
Question: What is the right set of channels? How to match customers with channels?

Session 12 – 2/25/15 (Wednesday) Final Group Presentation