Syllabus

OIDD 636x
Scaling Ventures: Aligning Operations with Strategy

Instructor

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Class Schedule

	Sep 12th	Sep 13th	Sep 26th	Sep 27th	Oct 10th	Oct 11th
Morning A		Peapod Case (9-10:30)		**How** to Scale: Assets Seagate Case (9-10:30)		Excel Models for growth (optional) (9-10:30)
Morning B		**When** to Scale? strategy (10:30-noon)		**How** to scale assets globally (10:30-12)		**How** to scale: platforms (10:30-12)
Afternoon A	**What** is scaling (12-1:30)		FleetComm Case (1-2:30)		Mexico China Game (1-2:30)	**How** to scale: people and organizations (12-1:30)
Afternoon B	**Why** firms scale? (1:30-3)		The risks of Scaling (2:30-4)		**How** to scale: supply base (2:30-4)	Course wrap up and review (1:30-3:00)
Afternoon C	**When** to scale? metrics (3-4:30)					

Course Overview

THE GOAL OF THIS COURSE is to make strategic scaling decisions that are grounded in operational reality. We study how to build and evaluate the "operating system" of the firm to maximize value with the focus on scaling the firm's operations. This involves tailoring the firm's operational competencies, assets, and processes to a specific business strategy.

We will approach the challenge of scaling operations by taking a holistic view that incorporates competitive strategy, financial evaluation, and the customer experience. We focus on decisions and challenges that many firms that try to scale their operations face with the focus on assessing the readiness of the firm to scale, and the required steps to scale. In particular, we will discuss whether the firm should build competencies in-house (i.e., investing in a portfolio of assets) or buy them (i.e., developing and implementing a global sourcing strategy and integrating external partners) and the risks associated with scaling these.

Prerequisites

Students who have already taken OIDD 611, OIDD 615, and STAT 613 should be well equipped for the class. Other students should have a solid understanding of elementary probability and statistics. For questions regarding the specifics of your background, please contact the instructor.

Course Materials

All course materials are either downloadable from Canvas or will be delivered over ForClass. ForClass is a platform that allows you to read cases and submit responses to basic questions that then will be used to enhance the discussion in the class.

Text and Course Materials

The textbook *Operations Strategy: Principles and Practice* by Gad Allon and J. A. Van Mieghem is **optional**.

Other textbooks that can give complementary viewpoints on operations strategy and scaling operations:

1. *Operations Strategy: Competing in the 21st Century.* S. L. Beckman and D. B. Rosenfield. McGraw-Hill, 2007.

2. *Operations, Strategy, and Technology: Pursuing the competitive edge.* R. Hayes, G. Pisano, D. Upton and S. Wheelwright. Wiley, 2005.

3. *Operations Strategy* by Slack and Lewis. Prentice Hall, 2003.

Other business books that may be of interest to students taking this course:

1. *Supply Chain Management: Strategy, Planning and Operations* by Chopra and Meindl. Prentice Hall.

Clock Speed by Charles H. Fine

Course Requirements and Grading

Course grades will be based on class participation (15%), Group case write-ups (30%), Individual case (10%) and a final term paper (45%).

Class Participation

One half of this grade will reflect basic measures of participation. On-time attendance is mandatory. You are expected to do the pre-assigned readings and to be prepared to discuss the readings in class.

The other half reflects my qualitative judgment concerning your effective contribution to class discussions and dynamics. You should be attentive to the class discussion. Your comments should respond to and "push forward" what is happening in class.

Case Write-Ups

There are three case write-ups (Peapod, FleetComm and Mexico China), which should be done in groups of 4 or 5, and one mini cases, Seagate.

For each case, I will post on ForClass a set of questions to be answered. Your group may answer the questions one at a time. While there is no need to write up the case as a memo, your answers to case questions should be crisp and complete. I will judge your answers based on the depth, clarity, and care with which you present them.

Term Paper/ Project

The goal of the project is to use the tools we discussed in class to better understand firms' attempt to scale or ability to scale. You should perform the analysis on a company and use the class lessons to explain variations across years. This is a very open exercise, so even if you cannot explain variations, you should discuss the deviations from the theory we discussed in class.

Steps:

1. Pick a firm that you can collect some data about from financial statements, as well as other sources (all public and private sources are legitimate).

2. Identify the main operational and marketing metrics required to assess its scaling over time: Build a ROIC tree as detailed as you can.

3. Use the timeline you can obtain. populate the tree. It's ok to make assumptions and approximations.

4. Identify changes in the firm's operations, based on what we discussed in class (increase in number of sku's, lean implementations, changes in global supply chains, etc) and see how they are being reflected in the tree. In particular,

5. Run sensitivity analysis on the main KPI's you identified based on the above

6. Discuss whether the model is scalable and how is that reflected in the KPI's.

7. Write a short report, up to 8 pages of text and 4 pages of exhibits.

Class Outline

Below is a summary listing of class topics and the due dates for case write-ups. To prepare for a given session, you should go to Canvas

https://canvas.upenn.edu/courses/#####

and follow the appropriate link for instructions for the given class.

Session	Topic	Due
1	**What** is scaling:	
2	**Why** firms scale?	
3	**When** to scale? metrics	
4	Scaling metrics (case discussion)	Peapod Case (Group)
5	**When** to Scale? strategy	Sugar and Spice (Read and Prep, not graded)
6	**When** to Scale? Strategy (case discussion)	FleetComm (Group)
7	The Risks of Scaling	
8	**How** to Scale: Assets	Seagate Case (Individual)
9	**How** to Scale Assets Globally	AllBirds (Read and Prep, not graded)
10	**How** to scale: supply base (simulation game)	Mexico China game (Group)
11	**How** to scale: supply base (Debrief)	
12	**How** to scale: platforms	Friendster (Read and Prep, not graded)
13	**How** to scale: platforms	Pal's Sudden Service (Read and Prep, not graded)
14	**Wrap-Up and Review**	

More Detailed Description for the Curriculum Committee

I.   Introduction:

Class 1:   **What** is scaling? What is a scaling strategy and what are the key scaling challenges?

Class 2:   **Why** firms scale? We will discuss the foundations of economies of scale and distinguish growth from scaling.

II.   Assessing Readiness:

Class 3:   **When** to scale: metrics We will use public information together with personal estimates and projections of key resources and process to assess the readiness of the firm to scale. During this process, starting with the Dupont decomposition, we distill key operational and marketing metrics that create value, tie them to financial performance, and suggest how to improve profitability over time while scaling the business.

Class 4:   Apply the concept. We will use the Peapod case as our main discussion vehicle.

Prepare: Prepare the Peapod on ForClass and submit your responses on the platform.   This a graded group submission.

Class 5:   **When** to scale? strategy How to assess a scaling strategy using internal data and competitive intelligence? Discuss how the concepts of operational trade-offs and competency focus relate to strategic positioning and operational efficiency and how they can be used--qualitatively and quantitatively—to evaluate a firm's readiness to scale. The class uses the Efficient Frontier framework to study the tradeoff between costs and other dimensions.

Prepare: Read the Sugar & Spice case on ForClass and submit your responses on the platform. This should be done individually.

Class 6: Apply the content of classes 1-5: describe and contrast two firms' operations strategy. Use competitive cost analysis and trade-off curves to guide the design of a scaling strategy based on process and resource capabilities.

Prepare: Prepare the FleetComm case on ForClass and submit your responses on the platform. This is a graded group submission.

III. Assets

Class 7:   What are the main risks of scaling and how show firms plan for them?

Class 8:   **How** to scale: assets. How can we structure resources and processes to mitigate the firm's risk exposure? How should firms build an asset portfolio to scale while hedging against risks.

Prepare: Read the Seagate case on ForClass and answer the questions. This is an individual case.

Class 9:   **How** to scale assets globally Which factors should be considered when designing a global operational network?

Prepare: Read the Allbirds case on ForClass and submit your responses on the platform. This should be done individually.

IV. Networks

Class 10: **How** to scale: supply base. How can the concept of *total landed cost* help making such decisions on scaling the firm's supply base.
We will play an in-class simulation game. The objective is that each group identifies how to best manage a global network and the key challenges faced in such setting.

Prepare: The assignment for the in-class simulation game will be discussed and handed out in the previous class. This a graded group submission.

Class 11: Mexico China game debrief.

Class 12:   **How** to scale: platforms. What does it mean to be a platform business and what are the unique challenges in scaling these?

Prepare: Read the Friendster case on ForClass and submit your responses on the platform. This should be done individually.

V.   **People vs. Processes**

Class 13:   **How** to scale: people and organizations Every organization must build capabilities for future growth. Such capabilities include processes for new product and process development.

Prepare: Prepare the Pal's case on ForClass and submit your responses on the platform.

Class 14: Summary and wrap up.